

China

Hunan Green Development Project

Project Design Report

Main report and annexes

Mission Dates: 21/10/2023-04/11/2023

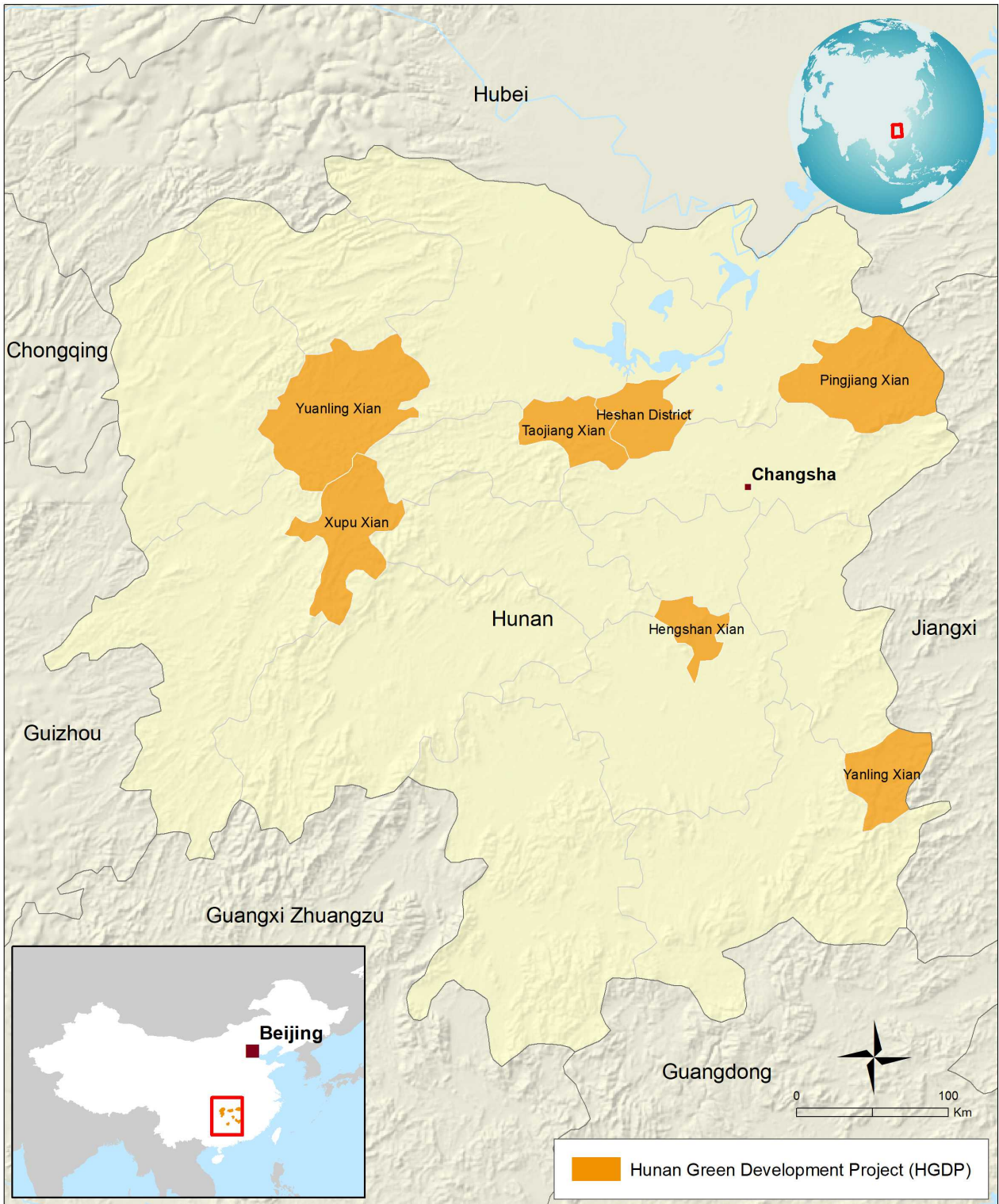
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Map of the Project Area



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.
Map compiled by IFAD | 07-11-2023

Abbreviations and Acronyms

4P	Public-Private-Producer Partnership
ACWF	All-China Women's Federation
ADB	Asian Development Bank
AWPB	Annual Workplan & Budget
BRAM	Borrowed Resources Access Mechanism
CCER	China Certified Emission Reduction
CDIC	Community Development Investment Company
CFB	County Forestry Bureau
CO2	Carbon Dioxide
COSOP	Country Strategic Opportunities Programme
CPE	Country Programme Evaluation
CPMO	County Project Management Office
DA	Designated Account
DOF	Department of Finance
EFA	Economic and Financial Analysis
ESCMP	Environmental, Social and Climate Management Plan
ESMS	Environmental and social management system
FAO	Food and Agriculture Organization
FPIC	Free Prior & Informed Consent
GDP	Gross Domestic Product
GPM	General Procurement Notice
H2RDP	Hunan Rural Revitalization Demonstration Project
HGDP	Hunan Green Development Project
IFAD	International Fund for Agricultural Development
INBAR	International Network for Bamboo and Rattan
IPPF	Indigenous People Planning Framework (IPPF)
IPRM	Integrated Project Risk Matrix
M&E	Monitoring & Evaluation
MRV	Measurement Reporting and Verification
NDC	Nationally Determined Contribution
NDRC	National Development and Reform Commission
PEFA	Public Expenditure Financial Accountability
PFD	Provincial Forestry Department
PFSS	Provincial Forestry Fund Station
PIM	Project Implementation Manual
PP	Procurement Plan
PPMO	Provincial Project Management Office
PPP	Purchasing Power Parity
PPS	Project Procurement Strategy
PRC	People's Republic of China
RIA	Research and Impact Assessment
SECAP	Social Environmental & Climate Assessment Review Note
SOFR	Secured Overnight Financing Rate
TOC	Theory of Change
UMIC	Upper Middle-Income Country
VIG	Village Implementation Groups

In line with IFAD mainstreaming commitments, the project has been validated as:

Be gender transformative Be youth sensitive Be nutrition sensitive Prioritize persons with disabilities Prioritize indigenous peoples Include climate finance Build adaptive capacity

Executive Summary

At the request of the Government of the People's Republic of China, the International Fund for Agriculture Development designed a new project titled the **Hunan Green Development Project (HGDP)** in close coordination with the Provincial Forestry Department in the Hunan Province. Despite the transformation in the agriculture sector, China's production base still relies extensively on smallholder participation. However, the smallholders face constraints in increasing productivity and accessing markets due to the small size of their landholding, limited access to capital, poor productivity, high levels of vulnerability to climate risks and poor integration with markets. The current production practices are not well adapted to climate risks and lead to poor soil management practices, high losses due to inability to withstand the impact of droughts and other climate risks.

IFAD's comparative advantage lies in its considerable experience of connecting smallholder producers to markets, helping smallholders mitigate and adapt to climate risks, implementing effective strategies for agriculture value chain development through public private and producer partnerships, integrating and empowering women and youth in value chains, and demonstrating innovative strategies for rural revitalization. IFAD has considerable experience in supporting commercially and environmentally sustainable value chains. IFAD's value addition in the project lies in pro-poor and climate resilient value chain development by fostering sustainable institutions and income generating pathways for smallholders, facilitating sustainable financing for greener agro-enterprise development that generate better employment, and offering scalable experiences for wider impact.

The goal of the HGDP is to promote rural revitalization and enable smallholders to benefit from rural transformation through an enterprise led green growth model which is inclusive and environmentally sustainable. The People's Republic of China has eradicated extreme levels of rural poverty, but consolidation and long-term sustainability of poverty achievements remain a high priority for the Government. The project will contribute to sustain poverty achievements by preventing vulnerable people from falling back into poverty and ensuring that the on-going process of rural transformation and agricultural modernization is inclusive and financially and environmentally sustainable. The project will be implemented over a six-year period in 7 counties (Taojiang, Hengshan, Yanling, Pingjiang, Heshan, Yuanling and Xupu). It is expected to be submitted for Executive Board approval in mid-April 2024 and will become effective by June 2024. Its completion is expected by June 2030.

The **development objective** of the project is to increase smallholders' capacity for enhanced production and productivity and access to markets, while optimizing environmental sustainability and climate resilience, by focusing on three selected value chains namely Bamboo, Oil-Tea Camelia and medicinal herbs in seven selected counties in the Hunan Province. The main target groups of the project will be smallholders especially women and youth who will, for purposes of production and marketing, be aggregated / linked to cooperatives, private and state-owned enterprises involved in the three selected value chains. A special effort will be made to ensure that women farmers are part of the decision making and that women led cooperatives and enterprises have preferential access to training, production inputs and access to markets. An inclusive targeting strategy will be applied with sensitivity for women, youth and ethnic minorities, where their employment in the value chains will be promoted. The project will also capitalise on the opportunity to contribute to China's ambitious goal of achieving carbon neutrality by 2060 by supporting emission reductions and carbon sequestration through investments in agro-forestry and agri-food systems and putting in place a model for carbon measurement and accounting.

Components/outcomes and activities. The project will have three components; Component 1: Smallholder Integration in Value Chains; Component 2: Enterprise Led Business Development and Component 3: Project Management & Capacity Building. Component 1 focuses on supporting increased quality raw material production and linking farmers with agro-processing entities through gender responsive and inclusive business plans. Component 2 invests in the upstream part of the value chain to consolidate the partnership initiated with the private sector and to ensure that increased production can be stored, processed and marketed to generate diverse additional income. Component 3 will support the 2 other components by providing capacity building and overall project management. The main outcomes expected from the project will be (i) Increased production and Productivity; (ii) Climate Adaptation & Enhanced CO₂ sequestration and (iii) Increased market share & value addition. These outcomes will lead to higher level impacts in terms of increase in and diversification of smallholder incomes, increased empowerment of women, increased agro-processing entities revenue and increased employment of women and youth.

Component 1: Smallholder Integration in Value Chains: This component will finance four sub-components focusing on enhancing the production quality and productivity, as well as the inclusivity, of the selected value chains. The focus on production will be on smallholders who produce bamboo shoots and wood, camellia oleifera fruits and medicinal plants. The project will mainly support the improved management of existing plantations of bamboo, rehabilitating lands for camellia oleifera production and promoting the under-forestry economy which includes Chinese medicinal plants. The main outputs that will be produced under this component will include (i) Inclusive & sustainable production management plans; (ii) Increased area under sustainable & climate smart management practices; (iii) Key infrastructures for cultivating the selected high value chain crops; (iv) a system for monitoring and accounting model for carbon sequestration.

Component 2: Enterprise Led Business Development: This component includes three sub-components focusing on enhancing the business development and growth of related enterprises involved in the three selected high value commodities, assist them in enhancing their processing capacity, product diversification & development and marketing. The investments will be undertaken through close coordination between two government institutions, the CDIC^[1] in each county and the Forest Bureau. The main

outputs that will be produced under this component will include (i) operationalized business plans that demonstrate a strong linkage with the smallholders and their cooperatives as well as social and environmental management systems (ESMS-ESG); (ii) expansion in physical infrastructure in green and low carbon enterprise parks; (iii) product diversification. This will lead to increases in volume, sustainability and quality of produce processed and marketed, create decent employment for women and youth in the enterprises and generate economic multiplier effects along the value chains and help to grow the rural economy.

Component 3: Project management and capacity building: The Provincial Forestry Department and the Forestry Bureaus at the county level, in conjunction with other government institutions, will provide the management and field staff, office accommodation and the logistical support. Local level institutions such as the Women's Federation and the Youth League resources will be used for outreach and to empower women and youth. This component will also include arrangements for monitoring and evaluation, knowledge harnessing and dissemination, opportunities for South-South Triangular Cooperation and policy contributions. Partnership will be sought with agencies like the International Bamboo and Rattan Organization (INBAR) for the development of the bamboo value chain.

Project Costs, financing and benefits: The total project cost is estimated to be USD 235 million over the six-year period. IFAD will provide a loan of USD 80 million under IFAD's Borrowed Resources Access Mechanism (BRAM). The major share of the IFAD loan funds will be on-lent to the County Governments who will pass it on to the County Development Investment Company (CDIC) for investment in the agro-enterprise parks being established by them. Part of the IFAD loan will be used by county governments to support infrastructure at the plantation level with co-financing from other public agencies. Private enterprises will provide the major share of funds estimated at around USD 112 million for investments in equipment and processing facilities, product diversification and market development. In addition, the County government through its relevant technical Bureaus would provide input subsidies and physical infrastructure investments in plantations targeted under the project. It is expected that the Government will provide USD 27 million in in-kind support and input subsidies. Smallholder beneficiaries are expected to provide USD 16 million as production costs for inputs, labour, etc.

Based on the plans submitted by the seven counties, it is expected that HGDP will be able to reach around 43,500 smallholder households directly and 128,000 people given the average household size of 2.95 people in the province. The numbers exclude beneficiaries who might receive more than one benefit from the project to avoid double counting. The Project is expected to rehabilitate or develop 199,000 mu or 13,266 hectares of land under the three crops. It is expected that women beneficiaries of the project will comprise up to 60% of the total beneficiaries and youth will constitute up to 30%.

The economic analysis of HGDP yields an EIRR of 15% with economic net present value at CNY 706.75 million using a discount rate of 8%. These figures indicate that the project is economically viable. A sensitivity analysis was carried out to test the robustness of the project to output price decline and cost increase. The results show that the project is equally sensitive to a reduction in benefits and cost increase.

Innovation and scaling-up. There is considerable scope in the HGDP for innovation and scaling up. The types of innovative aspects that are expected to be implemented by the Project will include (i) *consolidating the approach to smallholder sustainability*: IFAD is expecting to further strengthen the outcomes of the Government of China's approach of providing social safety net payments to one where the smallholders and the more vulnerable will be supported through production support, employment creation and access to markets (labour, land and product). HGDP intends to continue to scale up this approach through the selection of high value-added crops predominantly engaged in by the smallholders; (ii) *Innovative models for private sector participation*: HGDP will be supporting a range of models in which CDICs will be experimenting with some innovative partnership and financing models, such as joint ventures; (iii) *Introduction of innovative processing technologies*: There are a host of new technologies which are available in the market or are in the research and development phase which HGDP will help to test and disseminate and (iv) *Piloting Carbon Monitoring*: The Project expects to collaborate closely with the Carbon Sequestration Centre within the PFD and pilot a carbon monitoring methodology along the value chain and assess the potential for carbon trading and securing additional benefits for the smallholder bamboo producers. HGDP can help to build technical capacity of government and private sector bamboo owners both to estimate their carbon credit potential and develop "carbon labels" using advanced technologies.

Exit Strategy and Sustainability. The first aspect of the approach is using primarily (but not exclusively) enterprises as the main driver of green growth, market signalling and value chain strengthening. Their expansion will be fuelled by access to investment capital and facilities such as the agro-enterprise parks which will help them to expand their capacity, increase the number of value-added products and diversify their product lines. The three value chains selected have significant potential for growth and development but require the interventions of the project to capitalize on that potential in a sustainable manner. The project is unlocking that potential by enabling the enterprises to access investment and continued supply of raw materials by integrating and improving smallholder positions in the selected value chains. It is expected that the enterprises will be in a position to increase their revenues, expand their production and processing base while strengthening climate resilience and reducing their environmental footprint. The second prong of the strategy is that all smallholders regardless of the participation model, will improve their understanding and access to production techniques and facilities or arrangements that make them more sustainable and adaptive to climate risks. There is strong commitment at the Provincial and County level conducive the project and afterwards to continue support to both the smallholders and the private sector through a supportive policy and regulatory environment.

1. Context

A. National context and rationale for IFAD involvement

a. National Context

- Economic Growth:** The political stability in the country has enabled long-term development planning in the People's Republic of China which has paid dividends and has fuelled economic development and led to alleviation of poverty. Since the People's Republic of China (PRC) began to open up and reform its economy in 1978, its growth rate has averaged over 9 percent a year. China is the second largest economy in the world in nominal terms and is at the top in terms of Purchasing Power Parity (PPP) since 2017 after overtaking the United States (US). [2] China's share in the world economy rose from 1.5% in 1978 to 15% today, and per capita GDP has grown from US\$ 300 dollars in 1978 to US\$ 12,670 in 2022. China is now an upper-middle-income country.
- Poverty Alleviation:** The high rate of economic growth led to significant reduction in poverty which fell from 88% in 1981 to 3.8% in 2017 (as measured by the percentage of people living on the equivalent of US\$ 1.9 or less per day in 2011 purchasing price parity terms). Government of China declared the eradication of extreme poverty in 2021 - making China the first developing country to achieve the SDG1 target, ten years ahead of the global target. However, challenges remain high in avoiding relapsing into poverty and in reducing inequality and regional disparities between rural and urban areas.
- Carbon Commitment:** As a large carbon emitter, China has a crucial role in the reduction of global carbon emissions through its own commitment and its collective international engagement. China is making significant commitments to global governance addressing climate change. In September 2020, President Xi Jinping reiterated China's commitment to peak carbon emissions by 2030 and announced a goal to achieve carbon neutrality before 2060. This goal requires ambitious transformation in both reducing emission and carbon capture.
- Rural context:** Nearly 600 million Chinese, about 40% of the population, live in rural communities. China has witnessed a fundamental transformation in rural areas: whilst rural poverty has been eliminated, rural areas have experienced massive urban migration of active workforce attracted by the large gap between urban and rural salaries (per capita disposable income for the urban population is almost three-times higher than the rural population) and the limited income-generating opportunities in the rural areas. Rural villages today are characterized by a primarily elderly population and some middle-aged women taking care of the elderly parents, who contributes to about 60% of the labour force in rural areas, young children, and sick and/or people with disabilities. Rural families are often dependent on remittances provided by migrant worker family members, complemented by some income from small-scale production and local labour. The contribution of agriculture to the rural household income has declined over time, and income-generating opportunities are mostly in value added activities such as processing or high value crops. There is urgent need to revitalize rural areas to stem the tide of urban migration.
- Rural Revitalization Strategy:** The government of China developed the "rural revitalization" strategy (2017) in response to the urban migration trend. This is a long-term strategy which aims at rebalancing the existing divide between urban and rural areas by accelerating the development of rural areas and making them equally attractive as urban areas. Key strategies for pursuing and sustaining poverty reduction efforts and developing rural areas include: agricultural "industrialization" (i.e. the development of lead 'industries' through the support of 'new economic entities' (NEEs), such as a mix of private sector players including farmer cooperatives, family farms, and lead agro-enterprises, creation of employment opportunities, and comprehensive infrastructure development - among other strategies. Similarly, the government formulated several relevant guidelines or plans to address different sub-sector or thematic issues including the Long-Term Youth Development Strategy (2016-2025) and the National Guideline for Women and Children Development (2021-2030) for the development of women and youth.
- Private sector increased engagement on social and environmental governance,** offers conducive conditions for project partnership with private sector as well as an opportunity for the project to leverage further enhancement in ESG performance. In 2022, China has launched the [Measures for Enterprises to Disclose Environmental Information by Law](#) to regulate enterprises' disclosure of environmental information. Voluntary disclosure guidelines were published by the China Enterprise Reform and Development Society (CERDS) in June 2022 and comprise most of the indicators of international disclosure standards such as climate change, pollution and labour rights.
- Provincial context:** Hunan is located in the transition zone from Yunnan-Guizhou Plateau to the hills of south Yangtzi River, and from Nanling Mountains to Jiangnan Plain. With 2.21% of the national territory and about 3% of the national cultivated land, about 5% of Chinese citizen lives in Hunan province with a total population of 66 million in 2022, of which, 40% live in rural Hunan. Agriculture is a major sector in Hunan representing 16.8% of total GDP in 2022. In rural Hunan, per capita net income of farmers was about CNY 19,546 [3], about 97% of the national average for rural people (CNY 20,133 [4]) in 2022. About 1.421 million or 5.4% of rural people whose per capita net income was lower than CNY 4,300 received the minimum living guarantee subsidy. [5] There are 13 municipalities/prefectures and 122 counties/districts in Hunan province, of which, 20 were former nationally designated poverty counties. Through the implementation of national targeted poverty alleviation programme from 2013 to 2020, the province was able to address its absolute poverty situation but some households, typically with sickness, disability, lack of labor or other heavy economic burdens, are still vulnerable with potential risk of slipping back into poverty.
- Following the **national rural revitalization strategy**, the Hunan Provincial Regulation on Promoting Rural Revitalization was formulated in 2022. The regulation focused specifically on consolidating achievements in poverty alleviation, including supporting mechanism to low-income population (e.g. various subsidies, prioritization for employment etc.) and less developed areas, and monitoring and support mechanism to populations with potential risk of slipping back to poverty. The Government also provides subsidies to smallholders for agriculture inputs. At the County level, the Community Development Investment Companies (CDIC) provide opportunities for economic growth and development. The CDICs are state owned profit-oriented companies which undertake equity investments, such as state operated farms on leased land, as well as attract private sector enterprises through development of investment opportunities such as the construction and management of agro-enterprise parks

where private enterprises can establish their processing and packaging facilities and enhance incomes and employment opportunities. Establishing agro-industrial parks is a typical approach of local government in promoting the value chain development of its special or primary products, where it can not only lead to productivity enhancement but also post-production value addition, so as to benefit local people and economy through increased product absorption, employment, tax revenue and development of subsidiary sectors of the industry. Government tends to provide initial investment (mostly unmoveable infrastructure and assets) and sometimes other preferential terms, thus attracting incoming enterprises to invest in the agro-industrial parks usually for post production processes.

b. Special aspects relating to IFAD's corporate mainstreaming priorities

9. **Gender and social inclusion:** The process of urbanization in China has changed the structure of agricultural labour force in the central and western provinces. The increased opportunities and wages for men in urban areas has made women the majority workforce in the agricultural sector. Statistics show that since 1990, women make up more than 50 percent of those employed in agriculture and this ratio is increasing and had reached 67 per cent in 2003. The Fourth Survey on the Social Status of Chinese Women (2020) showed that rural women played a more important role in economic and social development than 10 years ago. Despite these trends, a fundamental gender bias exists due to cultural and historical reasons, leading to limited decision-making power by women, undervalued status in the household and family decision planning. The legacy of the one-child policy has also had a profound impact on women. With rapid aging of Chinese population, the burden of elderly care falls disproportionately on women and further exacerbates gender inequality and women's ability to productively participate in the labor market. While such cultural and historical biases can take a long time to dissipate, there are a number of areas where gender-responsive policies can be implemented. Increasing Female Labour Force Participation (FLFP) can also help boost output and productivity in the face of an aging and shrinking population. Easing regulations and entry barriers to boost productivity in the private sector would also have knock-on effects on reducing gender gaps, while supporting the economy.^[6] In line with the Plan of Hunan Province for Women's Development (2021-2025), HGDP plans to partner with the Hunan Women's Federation (HWF) for safeguarding women's rights and promoting gender equality and use its strong linkages at the grass roots and enterprise level for achieving gender transformative outcomes in the areas of women's economic empowerment, in decision-making and participation in smallholder cooperatives and by ensuring equitable benefit sharing through assisting them in negotiating better terms of engagement with markets and private enterprises, improved working conditions in private sector, and support for women's entrepreneurship to close existing gaps, while addressing unequal gender social norms.
10. **Rural youth:** Since 1980s when economic reform was started in China, rural labour has migrated to urban areas on a large scale attracted by much higher wages. Rural youth moved to cities in pursuit of good jobs and higher incomes to gain higher socio-economic status. But rural youth working in cities often face "marginalization" as it is difficult for most of them to integrate into the city. In the context of rural revitalization, local government departments have introduced policies to attract young people back to rural areas for employment and entrepreneurship.^{[7][8]} Government has developed a Medium- and Long-Term Youth Development Plan(2016-2025) for this purpose. The Communist Youth League (CYL) and the Hunan Communist Youth League (GCYL) have strong grass roots links and can be of assistance in this regard for meaningful youth engagement and empowerment through the project.
11. **Ethnic minorities:** According to the seventh census in 2020, the population of 55 ethnic minorities in Hunan Province was 6.69 million, accounting for 10.06% of the total population in the province, and the distribution of ethnic minorities is a pattern of "large co-habitation, small agglomeration", with a concentration in Western and southern Hunan. In the province, there are seven main ethnic minorities: Tujia, Miao, Dong, Yao, Bai, Hui, and Zhuang, who have established ethnic autonomous areas or ethnic townships. The ethnic minorities are integrated in the mainstream of the society, and government applies preferential policies and support for them in social, cultural and economic development as compared to the majority group of Han.^[9] The minorities do not consider themselves as a distinct element of the Chinese society and it would not be wise to treat them as a distinct part of society to avoid any perception of alienation. A separate Indigenous People's Planning Framework (IPPF) has been developed for HGDP even though this is not a category recognized as such in the country. The participation of all local people will in any case require Free Prior and Informed Consent (FPIC)
12. **Climate change:** According to data from the Climate Centre of Hunan Province, the average temperature in Hunan Province in 2022 was 18.6 °C, which is 0.9 °C higher than the average from 1991 to 2020, while changes have also been observed in the rainfall patterns, which are becoming more intense and unpredictable. IFAD also recognises the climate mitigation potential of its investments in the AFOLU sector and the synergies between climate adaptation and mitigation. Strengthening climate change adaptation and reducing GHG emissions is also a priority for the national government which has issued the National Climate Change Adaptation Strategy 2035 to address the impacts of climate change across a number of sectors and committed to achieving carbon neutrality by 2060. China is also leading by example on the Bamboo as Substitute for Plastic Initiative. This project aligns with both IFAD and the national government priorities by strengthening the resilience of small-holders in the bamboo, camellia oil tea and medical plants sectors through improved production practices and by supporting emission reductions and carbon sequestration through investments in agro-forestry and agri-food systems and putting in place a model for carbon measurement and accounting.

Table 1: Mainstreaming Themes

	<input checked="" type="checkbox"/> Gender transformational	<input checked="" type="checkbox"/> Youth sensitive	<input checked="" type="checkbox"/> Climate finance
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Situation analysis	<input checked="" type="checkbox"/> National gender policies, strategies and actors <input checked="" type="checkbox"/> Gender roles and exclusion/discrimination <input checked="" type="checkbox"/> Key livelihood problems and opportunities, by gender	<input checked="" type="checkbox"/> National youth policies, strategies and actors <input checked="" type="checkbox"/> Main youth groups <input checked="" type="checkbox"/> Challenges and opportunities by youth group	77%
Theory of change	<input checked="" type="checkbox"/> Gender policy objectives (empowerment, voice, workload) <input checked="" type="checkbox"/> Gender transformative pathways <input checked="" type="checkbox"/> Policy engagement on Gender Equality and Women's Empowerment.	<input checked="" type="checkbox"/> Pathways to youth socioeconomic empowerment <input checked="" type="checkbox"/> Youth employment included in project objectives/activities.	
Log-frame indicators	<input checked="" type="checkbox"/> Outreach disaggregated by sex <input checked="" type="checkbox"/> Women are >40% of outreach beneficiaries § IFAD empowerment index (IE2.1)	<input checked="" type="checkbox"/> Outreach disaggregated by sex and youth.	
Human and financial resources	<input checked="" type="checkbox"/> Staff with gender TORs <input checked="" type="checkbox"/> Funds for gender activities <input checked="" type="checkbox"/> Funds for IFAD empowerment index in M&E budget	<input checked="" type="checkbox"/> Staff with youth TORs <input checked="" type="checkbox"/> Funds for youth activities	

c. Rationale for IFAD involvement

13. IFAD's comparative advantage mostly lies in its considerable experience of connecting smallholder producers to markets, helping smallholders adapt to climate risks and adopt climate smart sustainable agriculture practices and implementing effective strategies for agriculture value chain development through public private and producer partnership models. IFAD is also recognized for empowering women and youth in value chains, and demonstrating innovative strategies for rural revitalization. Despite the transformation in the agriculture sector, China's production base still relies extensively on smallholder participation. However, smallholders face constraints in increasing productivity and accessing markets due to the small size of their landholding, limited access to capital, poor productivity, high levels of vulnerability to climate risks and poor integration with markets. The current production practices are not well adapted to climate risks and lead to poor soil management practices, high losses due to inability to withstand the impact of droughts and other climate risks and inability to capitalize on the potential for climate change mitigation from agro-forestry particularly from bamboo plantations, and the under-forest economy. IFAD has considerable experience in supporting commercially and environmentally sustainable value chains. It has strengthened its approach of enterprise led development to ensure benefits accrue to smallholders and is now exploring approaches for enhancing their capacity to link them to carbon markets. IFAD's value addition in the project lies in fostering sustainable institutions for smallholders, facilitating sustainable financing for green agro-enterprise development, and offering scalable experiences for wider impact.

B. Lessons learned

14. IFAD currently has four on-going projects in five provinces investing a total of USD 675 million. IFAD's contribution to the current portfolio represents 43% of the total. IFAD has also implemented three projects in the province of Hunan, including the ongoing Hunan Rural Revitalization Development Project (H2RDP). These projects aimed to demonstrate effective measures and approaches for enabling smallholders, especially vulnerable target groups to be integrated into value chains to benefit from the modernization of agro-industry while enhancing their resilience to economic, environmental and climatic shocks. Building on the experience of these projects as well as drawing lessons from IFAD's Research and Impact Assessment (RIA) Division documents [10], some important lessons are incorporated in HGDP's design as outlined in Annex 14 and summarized below.
1. **Value Chain Approaches:** An integrated approach covering both production and marketing aspects as well as a combined top-down and bottom-up approach to engaging smallholder producers in the value chain has been successful. Business Planning financing practiced in China portfolio was found to be a useful instrument for reaching out to the smallholder farmers through the grassroots agro-businesses, leveraging matching investments from the private sector and fostering the development of inclusive, fair and sustainable business relations for sustained benefit.
 2. **Targeting and Inclusion of Smallholders, women and youth:** Needs to happen from the outset – with the selection of the value chains. Inclusion of smallholders through cooperatives provides an effective and inclusive targeting approach. Women's participation can be transformational as it leads to empowerment along several dimensions. Productive engagement of youth requires the creation of employment generation and enterprise development opportunities that are attractive for them in technical and vocational skills, operation of equipment, transport, processing and marketing.
 3. **Infrastructure Investments:** Strong alignment with government projects especially in infrastructure investment is a proven best practice in China program (including the earlier IFAD projects in Hunan) to enhance synergy, leverage ownership and ascertain sustainability. RIA assessment of the GIADP project in Guangxi suggested that impacts are maximized when infrastructure interventions are combined with marketing activities.
 4. **Climate Adaptation and Risk Mitigation:** plantations and agro-forestry can have a significant impact in helping to develop the systems for enhanced carbon sequestration, creating awareness of the positive climate mitigation and monitoring and accounting for additional benefits. Meanwhile, projects that establish safeguards or contingency plans for extreme events are more likely to achieve sustained impacts.
 5. **Project Management:** Ensuring the appointment of adequate and capable finance and procurement staff with relevant qualifications and experiences and proper accounting software is critical for efficient implementation and avoids delays. Intensified capacity building at initial stage for project staff would be essential to shorten the learning curve for such type of project with public-private-producer partnership nature.

2. Project Description

C. Project objectives, geographic area of intervention and target groups

15. China has eradicated extreme levels of rural poverty, but consolidation and long-term sustainability of poverty achievements remain a high priority for the Government, as highlighted in the 14th Five-Year Plan 2021-2025. The project will contribute to sustain poverty achievements by preventing vulnerable people from falling back into poverty and ensuring that the on-going process of rural transformation and agricultural modernization is inclusive and financially and environmentally sustainable. The goal of the HGDP is to promote rural revitalization and enable smallholders to benefit from rural transformation through an enterprise led green growth model which is inclusive and environmentally sustainable.
16. The **development objective** of the project is to increase smallholders' capacity for enhanced production/productivity and access to markets, while optimizing environmental sustainability and climate resilience, by focusing on three selected value chains namely Bamboo, Oil-Tea Camelia and medicinal herbs in seven selected counties in the Hunan Province. All three value chains were selected to provide opportunities for smallholder choice in participation. The project will also capitalise on the opportunity to contribute to China's ambitious goal of achieving carbon neutrality by 2060 by supporting emission reductions and carbon sequestration through investments in agro-forestry and agri-processing and putting in place a model for carbon measurement and accounting.
17. **County Selection:** The Hunan Green Development Project (HGDP) will be a six-year project which will cover seven counties in the Hunan Province. The counties will include Taojiang, Hengshan, Yanling, Pingjiang, Heshan, Yuanling and Xupu. The counties have been selected on the basis of (i) strong willingness and commitment of County Government to participate in the project; (ii) financial capacity to incur and repay the debt from BRAM resources; (iii) high potential for the production of the selected high value commodities with strong outreach to smallholders; (iv) presence of private sector enterprises willing to invest in the selected value chains; (v) risk of households relapsing into poverty, especially in the former nationally designated poor counties (four of seven counties -- Yanling, Pingjiang, Yuanling and Xupu), due to multiple factors including climate change.
18. **Village selection.** The project will continue the IFAD's core targeting approach in the country, by applying the ongoing geographic and inclusive targeting strategy in the selection of vulnerable and disadvantaged target groups. The criteria of project village selection will ensure the project targeting to the above-mentioned groups, (i) high (unmet) potential for the production of the selected high value commodities with the largest potential for outreach and benefits to smallholders; (ii) high interests of selected enterprise to expending the production; (iii) high potential for developing standard farmers' cooperative; (iv) the priority for the former poor villages; (v) the priority for the village with the potential of developing women-led and youth-led cooperatives. Furthermore, the geographic targeting will ensure that selected villages and plantations are far from protected areas or ecological red zones.

19. **Target Group selection.** The project will mainly target former registered poor households under continued monitoring, and low-income households. The project will improve their integration in value chains whether they cultivate land or not as detailed in the engagement pathways that are aligned with their priorities, assets, capacities and livelihood strategies. (Annex 17). This includes enabling small-holders including those registered poor households to engage with private sector directly or indirectly in self-production through cooperatives, by renting land to the enterprises, identifying decent and safe employment and labour opportunities in production and in processing, marketing and logistics.
20. HGDP will additionally adopt enabling measures to work with state and private enterprises that would be chosen for their ability to work with small holders and cooperatives including those from the former poor villages. HGDP targeting strategy will be informed by the assessment of the livelihoods, constraints and aspirations of the different target groups of which 60% of women and 30% of youth including from ethnic minorities and 10% designated poor (where relevant). Direct beneficiaries will be selected from the following socio-economic groups: (i) smallholder farmers including those designated poor, those economically less active households, other vulnerable groups including ethnic minorities (where relevant) and (ii) women (including women-headed households) and young women and men in the target areas.
21. Smallholder farmer households in China have very small holdings with 90% of smallholders farm on less than 1 ha of land. On average, agriculture land holding in the counties varies between 0.72 mu to 1.5 mu^[11] per person or an average of 0.93 per person or 2.47 mu per household. However, forest landholding in the counties varies between 0.73 mu to 14 mu per person or an average of approximately 5 mu per household. Table 2 below gives the land holding share of the main type of holdings in the project area. This shows that landholding by smallholders and those aggregated into cooperatives makes up 47% of the total holding and represent 72% of beneficiary households. Landholding held by private enterprise makes up 34% of the total holding and shall generate employment & waged work opportunity for 28% of beneficiary households. A majority of the direct beneficiaries of HGDP will be smallholders (72% of beneficiaries). There are three envisioned engagement pathways for project beneficiaries (see annex 17 for more details): 1. Smallholder engages with private sector (or state farm) directly or indirectly in self production; 2. Smallholder leases land to state or private enterprise farm and may also be contracted as labour and/or 3. Smallholders and poor rural households engage with private sector or state enterprise as wage earners only on productive land or in processing/marketing/logistics. Direct beneficiaries will also include those who benefit through increased sales. All will participate in the various training programmes for strengthening their technical skills and management capacity. The project will include cooperatives as a key institution for smallholder farmers and capitalize on their role as investor-owned enterprises or land-shareholding cooperatives which gives members an opportunity to earn wages, secure land rents or a share in the profits. The cooperative membership in the selected counties was reported at 55,885 households with an average membership of 23 households per cooperative. Only a small proportion of households (10%) reported being currently connected directly with enterprises. The type of beneficiaries and benefits are detailed in Annex 12.

Table 2: Type of Production Model (land aggregation) at Stage of Design (mu)

	Area	(%)
State owned Forest Farm	11600	6%
Private enterprises	67200	34%
Ccooperatives	36350	18%
Individual Large Holders	26450	13%
Individual Small Holders	57900	29%
	199500	100%

22. **Gender and social inclusion (GSI).** As detailed in Annex 16, Social inclusion of women, youth, and different ethnic groups will be a cross cutting theme across all components of the Project. The gender transformative goal of HGDP is to increase the socio-economic empowerment of rural women including young women while addressing unequal gender social norms. HGDP will pay particular attention to the empowerment of women, through training, advocacy, facilitation and other value chain related interventions, by: (i) expanding their access to and control over resources; (ii) strengthening their agency, decision-making role in community affairs, and representation in local institutions; and (iii) building on their untapped potential for sustainable development, by recognizing their role as stewards of natural resources and biodiversity, and as bearers of rich traditional knowledge systems. **Youth empowerment** will be achieved via the following pathways: a) creating employment opportunities along the selected value-chains; b) tailored support/facilitation to young men and women agri-entrepreneurs with access to business packages, including agri-entrepreneurship and enterprise related production training, access to special loans and mentorship offered by the project stakeholders or elsewhere government programs; c) increasing youth participation in decision making in VIGs and rural enterprises. Rural enterprises involved in the HGDP will be required to offer opportunities to young men and women for employment.

D. Components/outcomes and activities

23. The project has three components; Component 1: Smallholder Integration in Value Chains with emphasis on women and youth smallholders; Component 2: Enterprise Led Business Development with clear pathways for engagement and empowerment of women and youth informed by the province level gender social norms assessment and Component 3: Project Management & Capacity Building. Component 1 focuses on supporting production aspects and linking farmers with corporate entity through

gender responsive and inclusive business plans. Component 2 in return invests in the upstream part of the value chain to consolidate the inclusive partnerships initiated with the private sector and to ensure that the increased production can be stored, processed and properly marketed to generate further income. Component 3 will support the 2 other components by providing capacity building and overall project management. Together, such investments will achieve the following main outcomes in terms of (i) Increased production and Productivity; (ii) Climate Adaptation & Enhanced CO₂ sequestration and (iii) Increased market share & value addition. These outcomes will lead to higher level impacts in terms of increase in incomes, increased socio-economic empowerment of women and gender transformative outcomes through increased agency of women including young women, increased revenue and increased employment of women and youth. The components together with key activities are described below.

Component 1: Smallholder Integration in Value Chains

24. This component finances four sub-components focusing on enhancing the production quality, productivity, and inclusivity of the selected value chains. The County Government, particularly the Forestry Bureau will take the lead in the implementation of this component in partnership with the County Development Investment Company (CDIC), the state-owned forest farm, the cooperatives and the enterprises as well as the village planning committee, giving due focus to gender transformative outcomes in the areas of women and youth's increased decision making at both household and cooperative levels through adoption of household mentoring, investments in leadership skills trainings for women and youth leaders and facilitation of skills development for women and youth to enhance their employment opportunities in decent jobs within the value chains. The focus on production will be on smallholders who produce or participate in producing bamboo shoots and wood, camellia oleifera fruits and medicinal plants. The project will mainly support the improved management of existing plantations of bamboo, rehabilitating lands for camellia oleifera production and promoting the under-forestry economy which includes Chinese medicinal plants. The main outputs that will be produced under this component will include (i) Inclusive & sustainable production management plans and partnership agreements; (ii) Increased area under sustainable & climate smart management practices; (iii) Key infrastructures for cultivating the selected high value chain crops; (v) A monitoring and accounting model for carbon sequestration.

Sub-Component 1.1: Developing Inclusive & Sustainable Production Management Plans

25. Under this sub-component, the County Forestry Bureau will work closely with the private sector and smallholder cooperatives to assess the potential for the production and marketing in each of the selected value chains. The willingness of the smallholders, cooperatives, village collectives and enterprises to participate in the project has been preliminary assessed by the County Governments through a consultative process, and will be finalised during implementation. The Forestry Bureau has provided a preliminary assessment of the area under each of the selected value chain crops, the area that needs rehabilitation, the potential area for expansion (only for camellia oleifera on degraded lands) and the technical, social, environmental and climate factors that will determine the choice of area (PIM). The Forest Bureau in collaboration with CDIC/State Farm at county levels, cooperatives and private enterprises will jointly develop an inclusive plan, that is informed by market signals and forward trends, for the sustainable and climate resilient management of the plantations of the three value chain commodities, ensuring engagement and free and prior informed consent of village committees and reviewing climate and environmental issues. The County Forestry Bureau will also undertake an assessment, following gender and social norms for which advance training maybe required, of the number of smallholders involved in the production or with the potential to undertake the production of the selected high value chain crops, also understanding their interest to participate either as producers on their own land or as renter in or out (in this last option they can opt in as paid labour to lower their risk). The capacity of the cooperatives and enterprise in terms of environmental social management will also be assessed under this sub-component and the need for strengthening determined with a plan for capacity building and technical support. This assessment will also include a gender social norms assessment to determine the extent of women and their roles within the selected VC crops incl. young women and women from ethnic minorities and the gender social norms assessment will also help to determine women's climate adaptive capacity. For households engaging directly in production on their plantation, they will be organized through existing or new cooperatives (specialised farmer cooperative or village collective economic cooperative). An agreement will be negotiated between the cooperatives and the enterprises to enter into an inclusive partnership, which may include off taking, calendarization and/or light processing/packaging for value chain development be implemented / complemented by component 2. The Project Management Office (PMO) will be responsible for monitoring and overseeing that the terms of these agreements are upheld.

Sub-Component 1.2: Implementation of Sustainable & Climate Smart Management Practices

26. The Production Management Plans will include well established management practices which can help to enhance the climate resilience and productivity of the three selected crops without additional chemical use and mitigating any biodiversity risks. Five technical models for growing these crops are planned such as: (i) improved management of bamboo timber forest; (ii) improved management of bamboo shoot and timber dual-use forest; (iii) planting of Camellia oleifera; (iv) improved management of existing Camellia oleifera plantations; (v) cultivation of Chinese medicinal plants. The public extension officers will, in a gender sensitive manner, provide smallholders technical trainings, field demonstrations, regular monitoring visits and exposure visits for the proper management of the plantations and adaptation techniques to increase carbon sequestration and strengthen resilience to climate change (i.e. protect against droughts, extreme temperature, fluctuating rainfall pattern) by investing in adapted varieties, do proper soil and water conservation, input application, irrigation, micro-dosed fertigation, planting spacing, tending, pruning, harvesting, and controlling bamboo propagation etc. To reduce risks of pest and disease and bamboo invasion, the project will support / pilot use of additional trees in bamboo plantations as well as manual thinning – picking of infected shoots. Choice of medicinal plants will consider both market and adaptation to local ecosystems informed by the findings from the gender social norms assessment to ensure women including young women and women from ethnic minorities benefit from the implementation of the sustainable and climate smart management practices.
27. To build long term resilience to climate risks, and given the very small parcels of land under smallholder rights, innovative models of engaging smallholders in sustainable and climate smart management of the three selected crops are being practised

in which the smallholders can (i) invest on their land through an agreement with upstream enterprises on a floor price for their produce (higher risk); (ii) lease their land to enterprises and if choosing work as labour, they receive technical support from the enterprises, and often receive rent or a dividend in the production revenues (medium risk); (iii) work on the production base of enterprises as on-farm wage labour often with a small percentage of sales accruing to their wage income (low risk). In addition, the project will promote climate insurance mechanisms. In these ways, the smallholders benefit directly from increased income by selling of produce, renting land or receiving “dividends” through share in production, on-farm wage, and improved productivity and quality through receiving gender responsive and socially inclusive trainings on climate smart production techniques, provision of improved inputs for production (seeds, saplings, fertilizer, etc.), optimization of owned factors of production, and access to improved infrastructure (irrigation, passageways, etc.).

Sub-Component 1.3: Key climate resilient Infrastructure Investments for cultivating the selected high value chain crops.

28. There are a range of infrastructure needs both to increase sustainable management and the adaptive capacities of the plantations (see Annex 14 for details), which have been identified for the targeted area. Each Production Management Plan will detail the type of infrastructure needed for the different production zones. The infrastructure investments required will most likely include irrigation schemes such as small water reservoirs with a gravity hose or drip irrigation systems and other means of conveying water to the plantations. The investments in water-saving irrigation technologies will lead to an increase in the adaptive capacity and lower their risk, by limiting farmers' losses during the drought season. Furthermore, the project will seek to invest in solar powered equipment further reducing emissions. These investments will be planned together with village committees and made jointly by IFAD, Government and private enterprises that expect to partner with the Cooperatives as their upfront investment to develop the plantations.
29. Other infrastructure investments required are passageways and some roads in some areas to get to the plantations. Small village roads which can enhance the accessibility of the plantations for better utilization and transportation will be provided from the County budgets. These are particularly important for bamboo plantations, which are currently not properly maintained by smallholders due to their inaccessibility. It is expected that the County Government will invest in these roads as they are more in the nature of public goods and beyond the investment capacity of private enterprises.
30. The Operationalization and Maintenance responsibility of the infrastructures will for the beneficiaries trained for this purpose with public financial and technical support (Annex 14).

Sub-Component 1.4: Enhancing Carbon Sequestration, resilience and Monitoring & Accounting

31. An analysis of the current situation on carbon accounting and trading is presented in Annex 18. The bamboo plant absorbs significant amounts of carbon because of its rapid growth. The Camellia trees can also play an important role in carbon uptake. This potential can be further enhanced through improved management and the transformation of the harvested biomass into durable goods or replacing high emission plastics. However, since many of the bamboo areas are on mountains and not easily accessible, there is little incentive for the smallholders to properly maintain or harvest their crop because of the labour requirements. The project will, through improved gender responsive and climate smart management of the plantations, and access to small infrastructures, increase carbon sequestration potential and develop a system for proper monitoring and accounting of carbon uptakes and emissions. Furthermore, the project may test additional practices of using diversified support tree that can reduce risks of pest and disease, improve resilience to rain, increase soil organic matter and conserve biodiversity. Plots will be selected for carbon monitoring and measuring and comparing the difference between the traditional and different improved management practices for bamboo and Camellia plantations. The comparison will provide the basis for carbon accounting and promoting carbon methodologies for improved forest management, including both China's Certified Emission Reduction (CCER) but also piloting carbon footprint labelling of major bamboo products and tea oil products of Camellia;
32. This will help to assess the cost of the carbon sequestration per unit and the feasibility of carbon trading when that becomes possible again in the project area. This may contribute to bankability of such practices and improved resilience to climate change.
33. The activity will be carried out in collaboration with the Provincial Forestry Department through its Carbon Sequestration Centre, along with the County Forestry Bureau with support of technical organization or consultants. This analysis will be made in a few counties such as Taojiang, Heshan and Yuanling which have sizeable area under bamboo and Camellia plantations. The project experience will lead to the development of a model for carbon sequestration enhancement and its proper monitoring and accounting, as well as provide the data/basis for bankable proposal to invest in such types of plantations. The model will hopefully be scaled up in the province and country level. This activity will be closely coordinated with the KfW which is also supporting carbon monitoring and trading in selected counties.

Component 2: Enterprise Led inclusive Business Development

34. Under Component 2, HGDP will provide catalytic resources for investment in upstream businesses and selected government enterprises for the three value chains. This component includes three sub-components focusing on enhancing the business development and growth of enterprises involved in the three selected high value commodities value chains, assist them to better partner with target smallholder farmers, while enhancing their processing capacity, product diversification & development and marketing and reducing their environmental impact and increasing their pro-poor nature. The principal mechanism for these investments will be the CDICs, which are the investment arms of the respective county governments. The CDICs have invested in public enterprises such as government farms and private enterprises (previously through lending mechanisms but also through joint ventures), some for decades.
35. CDIC are required to invest using government regulations (including safeguards) and project preparation includes social, environmental and economic feasibility study as well as other studies required depending on prevailing social-environmental safeguards. Investment criteria will be guided by the Forest Bureau and in close coordination with related CDICs and the county

governments. These will include the following broad categories covering return, impact through inclusivity, climate action and innovation, and alignment with county safeguards against a minimum criteria as follows:

Table 3: CDIC Investment criteria

Criteria	Direct (upstream processing, packaging, logistics)	Direct (production level investment)	Indirect (infrastructure, industrial parks)
Industry/VC	Camelia, bamboo, medicinal herbs		
Supplier	Cooperatives, smallholders, (commit to increase total volume sourced, while covering the targeted SH beneficiaries)	Cooperatives, smallholders as lessors or owner operators.	Businesses occupying must increase source of their supply volume from smallholders, or state and/or private farms. Percentage of commitment to be explicitly stated/agreed in BP.
Jobs	Women, youth, rural poor	Smallholders, rural poor	Women, youth, rural poor
Environmental and Social Management Plan and capacities	Compulsory	Compulsory	Compulsory
Climate Action	Commit to use energy efficient options	Must use climate sensitive and adaptive production techniques	Must be constructed as a green park or infrastructure
Business Plan Emphasis	Emphasis on skills training, and fair and just labour contracts; Market development and growth Environmental sustainability & Reduction of climate emission	Emphasis and budget allocation to capacity building, training of production and light processing workers (either smallholder operators or smallholder contractors) and fair and just contract farming arrangements Environmental sustainability & Reduction of climate emission	Environmental sustainability & Reduction of climate emission
Investment Purpose	Product development and differentiation, branding, innovation, start-ups, VC greening and carbon label	Improved, climate resilient production at scale to respond to market signals from value chain partners ; reduced transaction costs (i.e. road)	Provision of infrastructure to support primarily private sector in the 3 value chains.
Investment Returns	Essential	Essential and regular	Essential and Regular
Types of Investments	Joint venture/startups, equity for private firms	Cooperatives, government farms, private farms (large or small, in partnership with cooperatives) via Component 1	Infrastructure which generates regular, positive returns after an initial construction and start up period.

36. There are several models and investment types that will be adopted based on the plans of each county. In some counties, the CDIC will invest in establishing agro-enterprise parks to provide the basic facilities, and in some cases complementary services and infrastructure to be used by private sector tenants. Private enterprises will be attracted to these parks to access third party costly investment infrastructure and pooled services, reduce their initial investment costs and environmental footprint as well as achieve flexibility for scaling and modification of business lines in the future, logistical advantages and customization options. In

other counties, the CDIC or a public sector entity like the Forestry investment branch of the CDIC in Xupu or the State Forest Farm in Yanling will make an equity investment in a selected value chain activity and will directly take on the business risks to expand the production base and to create decent employment opportunities including for women and youth. It is likely, given the inability to lend by the CDICs, that investments which generate regular income (like rents, regular or seasonal sales, dividends etc.) will be prioritized over longer term, higher risk investments such as joint ventures or startups.

37. The main outputs that will be produced under this component will include (i) operationalized inclusive growth business plans that make the most of the production plans of component 1, ensure compliance to investment criteria, and required gender, social, climate and environment outcomes; (ii) expansion of physical infrastructure in green enterprise parks ensuring improved energy efficiency and management of waste and in climate adapted storage and processing facilities of private enterprises; (iii) product diversification to improve margins and increase employment opportunities. This will lead to an increase in volume and quality of produce processed and marketed, creating decent employment for women and youth in the enterprises and generating economic multiplier effects along the value chains helping to grow the rural economy. Furthermore, such investments are expected to improve energy efficiency and waste management, including through the use of renewable energy.

Sub-Component 2.1: Inclusive Business Plan Development

38. Each county will submit a proposal to the Provincial Forestry Department that will outline its plan of investment and how it complies with the minimum criteria of the project. This plan will indicate the model that each county is adopting and the co-financing by each partner such as from the CDIC, the public companies and the private enterprises. The proposals will include the technical, financial, gender, social and environment and climate feasibility of each proposal and screen environmental and social management plans of targeted enterprise. The proposals will build on established market opportunities and trends, link with and reinforce production plans in component 1 and elaborate on the potential of the enterprise to involve cooperatives and smallholders, women and youth; providing them not only additional employment and income opportunity but also strengthening participation in decision making and leadership. Each county will provide regular monitoring reports on the use of the funds and monitor its progress and report on the increase in production, land area rehabilitated and improved, employment and revenues generated and the participation of smallholders by gender, ethnic minority, poverty and age, among others. An illustrative list of enterprises expected to participate in HGDP is given in Table 4 below.

Table 4: List of Enterprises Expected to Participate in each County.

No.	County	Name
1	Yanling	Qingshigang State-owned Forest Farm
2	Hengshan	Hengshan County Urban and Rural Construction Investment Co., Ltd
3	Pingjiang	Pingjiang County Mijiang Yuanshan Tea Oil Co., Ltd. and Hunan Shanrun Oil Tea Technology Development Co., Ltd
4	Heshan	Heshan District Shanxiang Jubian Agricultural Development Co., Ltd
5	Taojiang	Taojiang County Zhuxiang State owned Assets Operation Co., Ltd
6	Yuanling	Yuanling County Forest Resources Collection and Storage Co., Ltd
7	Xupu	Xupu County Xingxiang Forestry Co., Ltd

Sub-Component 2.2: Establishment of energy efficient Productive Infrastructure

39. There are several types of infrastructure investments envisaged under the HGDP that will be financed from both IFAD loan funds and co-financing by the private and public sector enterprises. These will support investment in infrastructure contributing to improve productivity, reduce emissions and manage waste, including (i) investments by the CDICs in the agro-enterprise park for building the basic infrastructure and ensuring access to utilities, proper waste disposal, and adherence to environmental, social and safety standards to attract investment by private enterprises; (ii) investments by enterprises in energy saving (and renewable energy) processing, storage and packaging, equipment in the parks for the three selected crops and (iii) investments by public entities to expand their production and processing base while reducing emissions. The private sector enterprises will capitalise on the presence of the enterprise parks which the County government is investing in to underpin the growth of the three selected value chains. The investment in productive infrastructure for increased storage and processing will enable the enterprises to operate at scale. Some of the enterprises have decided to merge together to standardize their production, secure certification and enhance their market share. This enhanced processing capacity will enable the enterprises to offer increased employment opportunities to the young women and men in the counties to revitalise the rural economy through multiplier effects along the value chains.
40. The project will also use some of the IFAD funds to identify and invest in enhancing the primary processing capacity of cooperatives by helping them locate some of their processing facilities nearer the plantations. This support will also include developing an investment model for CDIC investments in larger cooperatives. Possible models of linking government subsidy, joint venture with or bridge/pre-finance by linked enterprise or other investment models could be further explored by counties during implementation. These primary processing facilities will help the cooperatives to generate greater income for their members and access markets directly or via enterprises. The CPMOs will determine the criteria for availing these facilities to cooperatives based on competitive proposals from cooperatives which will be based on their financial, technical, gender, social and environmental feasibility. Smaller cooperatives with high potential may be assisted in this regard. The investment in cooperatives, subject to its nature of infrastructure, will also be reflected in the business plan development activity of component

2.1.

Sub-Component 2.3 Product Development & Marketing

41. The enterprise business plan (mentioned in 2.1) will include details on product diversification and improved branding and marketing. The enterprises expect to improve quality control, standardise the quality of production, secure certification, install traceability processes, and enhance their brand to reach out to both domestic and export markets. The “Carbon Label” which is being piloted and developed under component 1.4 will be used to enhance the appeal of the products to the end buyer projecting themselves as carbon conscious and environmentally sensitive.
42. It is expected that the enhanced brand image and recognition of the selected counties will have a knock-on effect of generating eco-friendly tourism in some counties. There is growing demand for tourist treks and spa facilities in areas producing medicinal plants grown in Xupu. The Moso bamboo shoot production base in Taojiang county is attracting tourists with tourism facilities while some tourism facilities in the Camellia oleifera bases in Pingjiang are planned such as Camellia oleifera park. This is expected to generate additional employment and incomes, while also increasing public awareness about the sustainable management of these crops and their contribution to enhancing biodiversity.

Component 3: Project management and capacity building

43. The funds allocated for the third component will be used for building the management capacity for implementation of the project including on social safeguards and gender transformative programming. The Provincial Forestry Department and the Forestry Bureaus at the county level will provide the management and field staff, office accommodation and the logistical support. The financial management and procurement arrangements required for efficient project management will be put in place as well as oversight to ensure that investment criteria are being met by county partners. The funds for this component are expected to be covered by IFAD loan and the Provincial and County Governments, including the operating costs and the financial management capacity building needed for the CPMOs’ and any procurement and auditing functions.
44. The project also expects to assess all partners involved in the project to ensure effective and efficient use of investment funds.
45. It is also expected that the Government will invest in R&D for the development of innovative technologies and practices that can enhance yields, climate adaptation and mitigation, productivity, biodiversity and are more efficient and cost-effective. This component will also include arrangements for monitoring and evaluation including on empowerment, knowledge dissemination, opportunities for South-South Triangular Cooperation. SSTC and knowledge/policy contributions will be supported under this component. Partnership will be sought with agencies like the International Bamboo and Rattan Organization (INBAR) for the development of the bamboo value chain. Project M&E system will be established to assess and monitor the overall implementation of the project in various aspects to inform and improve its management. Finally, budget includes provision for implementing SECAP requirements and train staff accordingly including on gender and social inclusion.

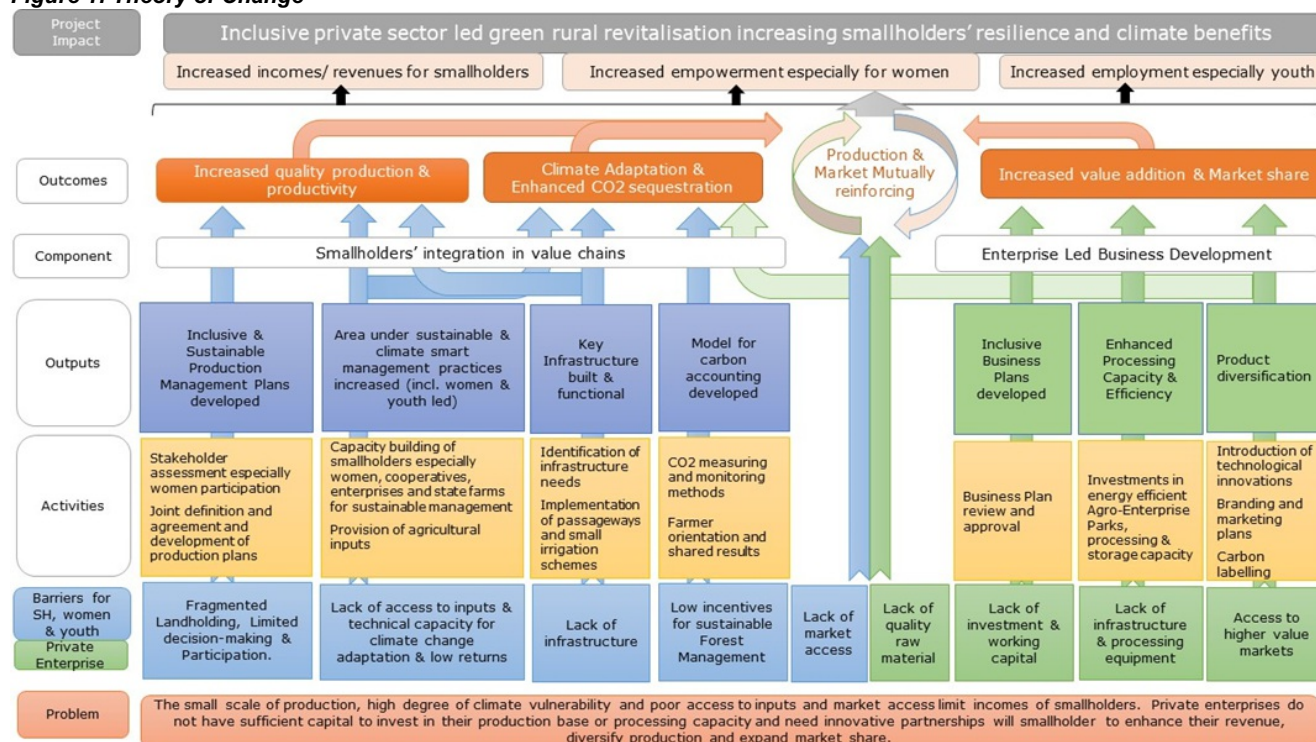
E. Theory of Change

46. The County Governments are committed to consolidating the achievements that the Government of China has made in its poverty alleviation efforts and would now like to move to a self-sustained model of shared prosperity in which the emphasis is on inclusive productivity enhancement, rural enterprise development, income generation, employment creation (with a strong emphasis on women and youth) and the delivery of global environmental benefits (mainly climate mitigation while protecting biodiversity). Building partnerships between smallholders and a dynamic private sector with the capacity to transform and revitalise the rural economy is at the heart of the ToC recognizing both that (i) smallholders’ fragmented landholding, lack of climate-adaptive infrastructure and their low technical, marketing and investment capacities together with low incentives and technical know-how for sustainable forest management, limit the smallholders’ ability to have a stable high-quality production restricts their incomes and bears risk and (ii) rural enterprises do not have sufficient capital to invest in their raw material production base or processing capacity and need innovative partnerships with smallholders to increase and diversify production and expand market share, and enhance their revenue. Enterprises are unable to engage with a large number of smallholders without intermediary institutions which can help them derisk their supply chain, reduce their transactions costs and realize economies of scale.
47. The proposed approach is an enterprise led transformative model that has a two-pronged but interlinked points of entry of support to (i) the smallholders both individually and through their cooperatives for enhancing quality raw material production, productivity and incomes in a sustainable way, so that high quality products are available on the market, while also increasing their resilience to climate risks and (ii) the enterprises through provision of basic infrastructure facilities, enhancement of quality and access to capital to promote value chains and increase low carbon processing/marketing capacity, product premiums and demands. The County Governments will channel their support and resources for the development and growth of the selected value chains through investments in improved production-based management (making plantations more inclusive and climate smart), the establishment of agro-enterprise parks that reduce emissions financed and investments by the CDIC, with co-financing by private sector and provision of support to smallholders. Women have a particular role in these value chains as some are already leading some of the producer’s cooperatives and enterprises. Strengthening these value chains will provide opportunities for leadership roles for women which will in turn lead to increased empowerment and revenues. Youth in the rural areas are also attracted to these value chains given their high value and employment opportunities.
48. The Project concept is premised on the following **Theory of Change** : IF smallholders particularly women and youth smallholders are better integrated into high value commodity chains and agro-processing enterprises in the same value chains are provided inclusive business development opportunities **THEN** together they can drive increased production and quality of

produce, Climate Adaptation and Enhanced CO2 sequestration and Increased value addition and market share (these being linked to increased empowerment, revenues and employment for women and youth) **BECAUSE** 1) cooperatives/smallholders are inclusively organized, strengthened, empowered, and receive adequate technical advisory and additional incentives for sustainable production practices so the area under sustainable and climate resilient management of the selected tree crops and shrubs is increased; 2) technically, environmentally and financially inclusive feasible business plans are developed and will guide investments that will further incentivize private sector engagement with smallholders, through infrastructure to service the selected value chains and reduce cost (i.e. road to reduce transaction costs etc.). Meanwhile, a system to gather benefits from increase carbon sequestration is developed, and the number and capacity of energy efficient processing facilities is expanded. The above items 1) and 2) will ensure that there is growth in the volume of high-quality produce marketed and sold which will generate employment opportunities while reducing emissions and improving carbon sequestration.

49. The gender transformative goal of HGDP is to increase the socio-economic empowerment of rural women including young women while addressing unequal gender social norms. HGDP will pay particular attention to the empowerment of women, through training, advocacy, facilitation and other value chain related interventions, by: (i) expanding their access to and control over resources; (ii) strengthening their agency, decision-making role in community affairs, and representation in local institutions; and (iii) building on their untapped potential for sustainable development, by recognizing their role as stewards of natural resources and biodiversity, and as bearers of rich traditional knowledge systems.

Figure 1: Theory of Change



Women are interested in agriculture activities provided they are offered productive opportunities which can help to increase their productivity and incomes and are structured in a manner which helps them meet their various domestic and farm responsibilities. The selection of value chains like bamboo, Camelia oil and Chinese medicinal plants involve post-harvest tasks preferred by women and also contribute to enhanced opportunities for improving household food and nutrition security because of their high value added and as sources of food. Also, young people are attracted by tasks that involve the operation of mechanical equipment, transport, digital technology, marketing and those aspects of production and processing which offer better compensation such as jobs in factories. Enterprises are also more willing to hire youth especially young women. The safe and decent employment of young men and women will be negotiated with the participating enterprises and the agriculture cooperatives.

Through climate adapted and sustainable management of existing plantations of bamboo, rehabilitating lands for camellia oleifera production and promoting the under-forest economy which includes Chinese medicinal plants, the project will increase and diversify income sources of the smallholders and enhance their resilience to climate change. Investment in climate adapted practice, soil conservation, water infrastructure and water monitoring services in areas of water scarcity will also reduce vulnerability to drought and other climate risks. Investments in organic production, integrated fertility management and organic pest management will reduce pollution risks. By strengthening the production of high-quality products and increasing the value addition & market share of these products all stakeholders, and particularly women and youth, will benefit from a virtuous circle of higher demand for high value products.

There are several key assumptions made in the TOC which include the following:

- The Governments at the Provincial and county level are committed to consolidating the achievements of poverty alleviation, green growth and neutral carbon pathways through a enterprise led transformative model.
- The Governments will channel their support and resources for the development and growth of the selected value chains through the government-owned County Development Investment Company (CDIC) which are committed to making equity

- investments and attract enterprises that have sound environmental and social management system.
- The production and business plan preparation, stakeholder engagement and ESG enforcement will, with the necessary interventions of the project, make the terms of engagement between the smallholders and cooperatives on the one hand and between the cooperatives and the enterprises on the other, mutually beneficial and ensure sustained growth and production of the model.
- The market dynamics will continue to lead and support the expansion in the demand of the three selected value chains and bring commensurate benefits from enhanced production and processing of these high value-added commodities.

F. Alignment, ownership and partnerships

50. **Alignment with national priorities and strategies:** The project is aligned with the Government's Rural Revitalization Strategy, which has guided a number of policies and reforms covering a broad range of issues such as modern farming and agricultural practices, farmers' rights on land, and environmental degradation. Rural revitalization also tops the agenda of the 14th Five-Year Plan (2021-2025). The project aligns well with the No.1 document of Hunan Province which highlights the development of integrated industry systems for specialised local products and enhancement of quality value chains and value addition processing in order to improve farmers' income through diversified opportunities for common prosperity. The project also aligns well with government's National Climate Change Adaptation Plan. In promoting sustainable and climate resilient agro-forestry development, the project will contribute to increased carbon sequestration and highlight the synergy between climate action, economic development, poverty reduction and environmental protection. Finally, the project will implement and promote government social and environmental safeguards systems for public and private sector, contributing to increase share of enterprise with disclosed environment and social governance system as encourage by recent policy.
51. **Alignment with Sustainable Development Goals (SDGs):** The objective of HGDP are aligned with Agenda 2030, and, more specifically with SDG 1 (eradicating poverty), SDG 2 (achieving food security and promoting sustainable agriculture), SDG 5 (achieving greater gender equality and empowering women), SDG 10 (reducing inequality within China), SDG 13 (reducing the impacts of climate change), and SDG 15 (managing sustainably natural resources and halting and reducing land degradation).
52. **Alignment with IFAD Strategies:** The project encompasses IFAD's strategic objectives as outlined in its current strategic framework at the corporate level of increasing poor rural people's productive capacities, enhancing benefits from markets, and strengthening environmental sustainability and climate resilience. The project is also well aligned with IFAD's Country strategic opportunities (COSOP) programme and IFAD's CSPE assessment that the Funds strategic focus should be on inclusive value chain development, sustainable land management and environmental and climate resilience. The current COSOP proposed greater focus on the position of rural poor in value chains, using the agribusiness entities including cooperatives as the main vehicle to enable equitable benefits and sustainable outreach and business partnership, through effective and diversified mechanisms. The project is anchored in the IFAD approach of providing platforms for innovation and knowledge management for promoting the rural development agenda. The project is aligned with and directly contributes to the objectives of the IFAD's Private Sector Engagement Strategy. The project is forward-looking as it initiates a transition from the poverty alleviation model of intervention to the shared prosperity through vitalization of rural industries model as envisaged under the rural revitalization strategy. It also initiates how IFAD would contribute to China's commitments to global public good in the area of environmental sustainability.
53. **Harmonization and Partnership:** HGDP will harmonize its efforts with the on-going plans for agriculture and enterprise development at the county level. The PMO and CPMO will coordinate their investment plans under the project with the plans of other departments at the provincial and county level to further strengthen and support the investments in plantations and the enterprise parks through the equity investments of CDICs. HGDP will also coordinate its plans with the Carbon Sequestration Centre within the PFD and the Carbon Platform at the provincial level in Hunan. In this regard, HGDP will also develop a partnership with KfW which is designing a project for enhancing carbon sequestration from the agro-forestry sector. The project will also identify opportunities for collaboration with recently approved AsDB TA for Hunan: TA 10221-PRC: *Supporting Market-Based Trading of Carbon Emission Rights in Hunan Province*. The International Bamboo and Rattan Organization (INBAR) participated in the design of HGDP and is planning to support in the dissemination of improved technologies and practices in bamboo production and processing both within the country and in pursuing the objectives of South-South Triangular Cooperation (SSTC).

G. Costs, benefits and financing

a. Project costs

54. The total project cost is estimated to be USD 235.2 million over the six-year project period. IFAD will provide a loan of USD 80 million. The balance of USD 155.2 million will be jointly financed by the government, beneficiary households and private sector

enterprises. The summary tables below show (i) project costs by component (and sub-components) and financier; (ii) project costs by expenditure category and financier; and (iii) project costs by component (and sub-components) and by year. Per request of the client team and for easy revision and aggregation during implementation, detailed cost tables, prepare by activity and by county in EXCEL, are presented in Annex 3.

Table 5: Programme/project costs by component (and sub-components) and financier

- Hunan Green Development Project Components by Financiers (US\$ '000)													
	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Smallholder Integration in Value Chains													
1. Developing Inclusive & Sustainable Production Management Plans	-	-	288	100.0	-	-	-	-	288	0.1	29	210	49
2. Implementation of Sustainable & Climate Smart Management Practices	13 406	12.3	42 870	39.2	16 412	15.0	36 725	33.6	109 413	46.5	2 506	101 708	5 199
3. Key Infrastructure Investments for cultivating the selected high value chain crops	4 390	17.5	855	3.4	-	-	19 786	79.0	25 031	10.6	-	24 737	294
4. Enhancing Carbon Sequestration and Monitoring & Accounting	150	27.5	-	-	-	-	397	72.5	547	0.2	-	537	11
Subtotal	17 946	13.3	44 013	32.5	16 412	12.1	56 909	42.1	135 279	57.5	2 536	127 192	5 552
B. Private Enterprise Led Business Development													
1. Inclusive Business Plan Development	0	-	1 808	100.0	-	-	-	-	1 808	0.8	181	1 320	307
2. Establishment of Productive Infrastructure	4 792	5.7	31 779	37.5	-	-	48 235	56.9	84 806	36.1	-	83 467	1 339
3. Product Development & Marketing	301	4.9	-	-	-	-	5 890	95.1	6 192	2.6	-	6 171	21
Subtotal	5 094	5.5	33 587	36.2	-	-	54 125	58.3	92 806	39.5	181	90 958	1 668
C. Management and capacity building													
1. Project management and capacity building	4 715	66.3	2 400	33.7	-	-	-	-	7 115	3.0	240	6 137	738
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

55. Table 6: Project costs by expenditure category and financier

People's Republic of China - Hunan Green Development Project Expenditure Accounts by Financiers (US\$ '000)													
	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs													
A. Operations and Maintenance	193	18.7	-	-	-	-	836	81.3	1 028	0.4	-	1 028	-
B. Goods, Services & Inputs (IFAD)	0	-	29 558	100.0	-	-	-	-	29 558	12.6	2 956	21 577	5 025
C. Counterpart funding (Government)	25 838	100.0	-	-	-	-	-	-	25 838	11.0	-	24 244	1 594
D. Works (IFAD)	-	-	18 388	100.0	-	-	-	-	18 388	7.8	-	18 388	-
E. Equipment and material (IFAD)	0	-	32 053	100.0	-	-	-	-	32 053	13.6	-	30 714	1 339
F. Beneficiary	-	-	-	-	16 412	100.0	-	-	16 412	7.0	-	16 412	-
G. Private sector	-	-	-	-	-	-	105 073	100.0	105 073	44.7	-	105 073	-
Total Investment Costs	26 031	11.4	80 000	35.0	16 412	7.2	105 909	46.4	228 351	97.1	2 956	217 437	7 958
II. Recurrent Costs													
A. Operating costs /a	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total Recurrent Costs	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

Table 7: Programme/project costs by component and year

People's Republic of China - Hunan Green Development Project Project Components by Year -- Totals Including Contingencies (US\$ '000)													
	Totals Including Contingencies							Total					
	2024	2025	2026	2027	2028	2029							
A. Smallholder Integration in Value Chains													
1. Developing Inclusive & Sustainable Production Management Plans			288	-	-	-	-	288					
2. Implementation of Sustainable & Climate Smart Management Practices	10 941	27 353	38 295	21 883	10 941	-	-	109 413					
3. Key Infrastructure Investments for cultivating the selected high value chain crops	2 503	6 271	8 764	4 996	2 497	-	-	25 031					
4. Enhancing Carbon Sequestration and Monitoring & Accounting	55	55	96	96	178	68	-	547					
Subtotal	13 787	33 679	47 154	26 975	13 616	68	-	135 279					
B. Private Enterprise Led Business Development													
1. Inclusive Business Plan Development	1 808	-	-	-	-	-	-	1 808					
2. Establishment of Productive Infrastructure	19 320	17 074	22 837	15 704	7 133	2 740	-	84 806					
3. Product Development & Marketing	342	370	1 370	1 370	1 370	1 370	-	6 192					
Subtotal	21 470	17 444	24 206	17 074	8 503	4 110	-	92 806					
C. Management and capacity building													
1. Project management and capacity building	1 827	948	948	948	948	1 496	-	7 115					
Subtotal	1 827	948	948	948	948	1 496	-	7 115					
Total PROJECT COSTS	37 085	52 071	72 309	44 997	23 066	5 674	-	235 200					

As per the multilateral development banks' methodologies for tracking climate change adaptation and mitigation finance, the total amount of IFAD climate finance for this project is estimated as US\$61.583 million including US\$ 24,485 million as climate adaptation finance and 37,098 million in climate mitigation finance.

b. Project financing/co-financing strategy and plan

56. The County governments through their relevant technical Bureaus would provide input subsidies and physical infrastructure investments in plantations targeted under the project through complementary programmes such as the Rural Revitalization Programme and the subsidy programmes implemented by the State, Provincial and County Governments. County Government will also co-finance the investments in the agro-enterprise parks, private and public sector entities and private enterprises will provide funds for investment in equipment and working capital. Preliminary commitments from the County Governments and equity financing from the private enterprises that would be potential partners in the HGDP have been indicated by each of the County Governments and have been indicated in the summary cost tables and county specific detail investment tables.

c. Disbursement

57. A designated account (DA) in USD will be opened at the Hunan Provincial Department of Finance for receiving funds from IFAD. The treasury accounts of each county (County Bureaus of Finance) will be used as Project Accounts (PA) in local currency for receiving fund transferred from the DA. PAs will be used to finance all project activities and operational costs.

58. Fund flow will follow the revolving fund mechanism which is outlined in the IFAD Handbook of Financial Management and Financial Control (FMFC) and the FMFC Letter. The Provincial Project Management Office (PPMO) will need to submit the Interim Financial Reporting (IFR) on a quarterly basis and separate Withdrawal Applications (Advance and Justification) through the IFAD Client Portal (ICP) with the forecast of cash projection in next two quarters for the request of disbursement from IFAD. The Withdrawal Applications shall be approved by the Hunan Provincial Department of Finance and then submitted to IFAD for review and proceeding with the disbursement processes.

59. The Governments of participating counties will contribute around USD 27,8 million in kind.

d. Summary of benefits and economic analysis

60. **Estimation of Benefits and Beneficiaries:** Based on the plans submitted by the seven counties, it is expected that HGDP will be able to reach around 43,500 smallholder households directly and 128,000 people given the average household size of 2.95 people in the province. The numbers exclude beneficiaries who might receive more than one benefit from the project to avoid double counting. The Project is expected to rehabilitate or develop 199,000 mu or 13,266 hectares of land under the three crops. It is expected that women beneficiaries of the project will comprise 60% of the total beneficiaries and youth will constitute around 30%. Table 7 below gives an estimated number of beneficiaries from the different types of benefit generated by the project. The assumptions made in the calculation of the beneficiaries are detailed in Annex 12.

Table 8: Estimation of Beneficiaries

Component 1	people	Men	Women	Youth
Training in climate adaptive production techniques	35 271	14 109	21 163	10 581
Provision of improved inputs for production (seeds, saplings, fertiliser, etc)	18 850	7 540	11 310	5 655
Access to improved infrastructure (irrigation, passage ways)	19 511	7 805	11 707	3 902
Increased income from renting land	7 456	3 728	3 728	
Increased income from divided income through share in production	7 456	3 728	3 728	
Increased income from sale of produce	4 483	2 124	2 359	2 241
Increased income from on-farm wage labour	15 760	6 304	9 456	6 304
Increased awareness of carbon sequestration, monitoring and accounting methods	100	30	70	50
Component 2				
Increased employment in agro-enterprises	2400	960	1440	1440
Increased sale of produce of smallholders due to enhanced processing capacity	5 790	2 316	3474	2316
Increased sale of produces of other smallholders non-supported in component 1 due to enhanced processing capacity	8 500	3 400	5 100	2 550
Total avoiding double counting	43 771	17 509	26 263	13 131
Rounded to	43 500	17 000	26 000	13 000

61. Financial analysis has been conducted for Component 1 only as post-production activities under Component 2 will be covered by the development of business plan, for which the financial analysis will be integral part of the business plan. For component 1, five technical models for plantation were developed to calculate the benefit cost analysis and estimate the IRR and NPV. These models included the following: (i) improved management of bamboo timber forest; (ii) improved management of bamboo shoot and timber dual-use forest; (iii) planting of *Camellia oleifera*; (iv) improved management of existing *Camellia oleifera* plantations; (v) cultivating of Chinese medicinal plants. Key profitability indicators of various plantation models are shown in the table below:

62. **Table 9. Key profitability indicators by models**

Plantation Model (Per mu)	FIRR	NPV (Yuan, discount rate@8%)	Household annual income (Yuan) at full development with family labour fully costed. (Average landholding of 5 mu)
Improved management of bamboo timber forest	8.5%	109	1,429
Improved management of bamboo shoot and timber dual-use forest	11.9%	1,155	2,100
New planting of <i>Camellia oleifera</i>	8.7%	728	7,310
Improved management of existing <i>Camellia oleifera</i> plantations	12.9%	1,326	2,146
Cultivating of Chinese medicinal plants.	19.9%	9,084	6,948

63. The economic analysis (only for Component 1 as with financial analysis) yields an EIRR of 15% with economic net present value at CNY 718.66 million using a discount rate of 8%. These figures indicate that the project is economically viable. A sensitivity analysis was carried out to test the robustness of the two key factors, namely output price decline and cost increase. The results are summarised in the table below. The economic viability of the project appears to be equally sensitive to benefit reduction (output prices decline) and cost increases.

Table 10: Results of the sensitivity analysis of the economic analysis

	EIRR
Baseline	15%
Output prices reduced by 13%	8%
Investment cost increased by 14%	8%

e. Exit Strategy and Sustainability

64. The sustainability and exit strategy of the project is based on a three-pronged approach.
65. The first aspect of the approach is using the enterprises as the main driver of growth and their expansion based on providing them access to facilities through the agro-enterprise parks which will help them to expand their capacity, increase their value added and diversify their produce. The three value chains selected have significant potential for growth and development. The project is unlocking that potential by enabling the enterprises to access investment and working capital and continued supply of raw materials by integrating smallholders into the selected value chains through a variety of arrangements indicated below. It is expected that the enterprises will be in a position to increase their revenues and expand their production and processing base.
66. The second prong of the strategy relies on strengthening capacities of beneficiaries and put in place arrangements through which smallholder farmers have improved understanding and access to production techniques and facilities that make them more adaptive to climate risks; . Training opportunities will be provided to the smallholders for improved management practices. Smallholder farmers who own and operate the production base are being integrated into the business model through a systematic approach which enables them to participate through cooperatives or directly with the market. Their sustained interest in the partnerships will be ensured through increased incomes and employment. Farmer cooperatives will be strengthened to enable them to negotiate better terms of partnership with the private sector and enhance their outreach and services to smallholders. Smallholders who choose not to produce directly may still optimize their land use by leasing out their land against clearly laid out lease agreements which specify how the land will be used (inclusive of climate adaptive investments), the term, and residual ownership of any leasehold improvements. These arrangements are expected to work well once they are established as they will be mutually beneficial. The project will oversee these arrangements to guide and report project results. The CPMO's will provide close supervision of how the system is working to ensure that it can focus its efforts on any weaknesses in the system and provide support where needed. Similarly, the project will reinforce capacities of community organizations in charge of maintaining and operating local infrastructures and put in place arrangement so that they benefit from continuous support from local government agencies.
67. The third prong of the strategy is related to sustained enabling environment and policy engagement. Indeed, there is strong commitment at the Provincial and County level to continue to provide support to both the smallholders and the private sector through a supportive policy and regulatory environment. The provision of annual inputs and subsidies will continue to be provided by the State, Provincial and County Governments for the selected crops as part of existing Government policy to incentivize and assist farmers. Country Development Investment Companies have a mandate to continue to provide equity investments to support investments for rural growth and development. These are expected to continue to make investments from their resources in the development of the selected value chains. The Forestry bureaus are expected to enhance their capacity for sector development by improved understanding of the type of policy and regulatory environment required for sustainable development of the agro-forestry and forestry sectors. The project's investment in developing a system for monitoring and measuring carbon sequestration is also expected to assist the government in refining its policy regarding CCER and can be scaled up to enable the Government to meet its commitments to achieve carbon neutrality by 2060.
68. A full exit strategy will be developed during the implementation phase building on the one presented in Annex 10.

3. Risks

H. Project risks and mitigation measures

69. The key risks associated with an enterprise driven value chain project are the market dynamics which are dependent on exogenous factors and not within the project control, climate risks that can lead to crop failure and losses, transparency and equity in the terms of engagement between smallholders and the enterprises and ensuring that smallholders are not locked into contracts that do not enable them to share equitably in the returns from an increase in demand or price increases (Annex 9). While the project will only have a limited leverage with respect to the risks associated with market dynamics, it will provide technical assistance to enterprises to be well poised in their business planning through scenario analysis and responding to changes in demand through product and market diversification and adjusting the scale of production. The Project is designed to assist farmers in addressing climate risks through improved practices that can help them to adapt to climate change and build their resilience to climate risks through training, technical assistance, adaptive inputs and infrastructure for irrigation, storage, primary processing and greater access to public sector insurance measures to protect them from losses from unexpected changes in weather. The project will also be piloting agro-forestry insurance, helping to strengthen smallholder producer cooperatives. This entails the potential of HGDP benefiting from ongoing pilots and explorations being undertaken by PFD and relevant domestic insurance/financing partners, through domestic financing, to promote, diversify and standardize insurance practices of agro-forestry relevant to the project support commodities, especially in Camelia tea oil. Such practices include but not limit to insurance products relevant to weather index, natural disasters, revenue etc. and their standardized processing. Producers including smallholders will primarily benefit from these advanced insurance schemes through improved contractual terms and risk sharing and transfer measures.
70. As the project will rely on infrastructure development both for the production and the processing parts, it will be key to ensure that the national laws of China are respected in terms of socio-environmental safeguards at all stages of development: as part of business planning, procurement, building and running of the infrastructures. The Annex 14 on Infrastructure and the SECAP detail the type of infrastructures and the safeguards to be implemented.
71. Due to the involvement of the private sector in the project, an assessment was made of possible risk associated to the environment or the workers in the processing facilities established under the Project. Private processing facilities will be supported to join enterprise parks which have proper facilities and maintain standards to protect the environment from emissions or disposal of waste or demonstrate that they have the standards and facilities in place in their own premises. The private enterprises will also have to adhere to standards of safety including sanitation and hygiene needs for their workers and protect them from any harassment and abuse given that many of them will be women workers. The County Governments will be required to regularly monitor the environmental and social management system and report to the CPMOs.
72. Another risk which was identified was the potential risk of negative fallout on women because of increase in their incomes and the shift that this could bring about in gender dynamics within the household leading to male insecurity. The rates of physical sexual violence reported by women in China is about the same as that reported in other countries in the region. A study found that 39 percent of female respondents who were ever partnered, reported experiencing physical and/or sexual intimate partner violence (IPV) in China. However, more recently it appears from official statistics that this rate has been decreasing sharply. This issue was examined in greater depth and based on research on what leads to gender based violence in China, there was small likelihood of the HGDP leading to increased levels of gender based violence given that it was designed to mitigate some of the factors that were reported to be responsible for GBV such as poverty, low educational level, job pressures and unemployment which were all assumed to be risk factors in perpetuating physical violence. [\[12\]](#) In fact, it was reported that women's enhanced decision-making, empowerment and increased financial control was likely to reduce GBV. According to a survey, in 2021, the proportion of women who suffered physical and mental violence from their spouses in marriage was only 8.6% in China. The mechanisms for protection of women have been strengthened in the country through a combination of policy and strong monitoring mechanisms. Even if the project doesn't foresee that it will lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labor influx, land redistribution, or other actions that alter community dynamics, it will contribute to awareness raising on these issues through its work and training on gender equality and women's empowerment for project implementers and with the target groups.
73. There are no indigenous people in China and there was no risk for ethnic minorities which are well integrated into the mainstream society. The ethnic minorities exist in only two of the seven counties in which the project will be implemented. Since the exact project locations have not yet been identified it is not clear what proportion of the target group may belong to any of the minority communities. Nevertheless, an Indigenous People Planning Framework (IPPF) has been developed with emphasis on FPIC processes in a culturally appropriate manner and would ensure that the Project does not pose any risk to any minority member.
74. Implementation efficiency especially at early stage of project has been an issue of concern in recently implemented IFAD China projects. The initial hiccups may impact the project in effectiveness of project and other sustainability domains. Staff rotation and lack of capacity was the main causes in earlier projects. HGDP will take lessons from previous projects and adopt proper mitigation actions, including, among others: a) intensified start-up support and training to comprehend project design and implementation requirements and specifics; b) involvement of local technical experts called upon by PPMO to provide technical guidance to project implementation; c) explore and take full advantage of CDIC experience and expertise in investment; d) soonest finalization and adaptation of PIM by PPMO to the level of details/specifics that can best guide activity implementation in the counties; e) appointment of staff with designated roles and responsibilities.

75. The overall Financial Management risk of HGDP is Moderate (Annex 9 IPRM).
76. The project will be implemented by the Provincial Forestry Department (PFD) of Hunan Province in China. PFD has experience in implementing foreign funded projects including World Bank and EIB. Financing will pass on to private sector who will pass on some to smallholders, financial management of these private sector may not fully meet project requirement.
77. To ensure these issues are properly addressed and resolved, different remedy measures will be applied and reflected in the project design including: (i) ensure adequate and capable finance staff should be appointed as early as possible at each level of PMOs with relevant professional and working experience to quickly adapt to sound FM requirement and accounting practices; (ii) Procure/develop the web-based accounting system at early stage of implementation, taken MIS in the ongoing IFAD project as reference; (iii) Capacity building for staff should be conducted at early phase of implementation; (iv) FM procedures and requirement will be clearly spelled out in PIM, to be distributed to all levels and included in the first batch of training program. Ensure that a clear guidance, steps and check list for payments, reimbursement and disbursement are included in the PIM and agreed with DOF.

I. Environment and Social category

78. The **Social and Environmental Risk Category** for the Hunan project is rated as **Moderate**, following the results of the Environmental and Social Safeguards Screening Checklist. In a nutshell, risks remain manageable as these areas are highly regulated in China whose related policies has been evaluated as satisfactory by the World Bank. Moreover, the objective of the project is to support and promote a more sustainable management of the key value chains. The 8 SECAP categories have been reviewed and detailed in Annex 5.
- **Biodiversity conservation:** the project will invest in activities that are small scale and not disruptive of the natural environment or biodiversity. The geographic targeting will exclude all ecologically sensitive areas as per China tight regulation of ecological red zones.
 - **Resource efficiency and pollution prevention i) in plantation:** the fertilisers used on these lands are organic fertilizers and the project will only supply seedlings and bio-inputs. Fertigation system will promote efficient and minimized use mineral fertilizer. The irrigation systems will be of small scale and use surface water with negligible impact on existing resources. **ii) in enterprise:** the establishment of enterprise parks will assist in pollution prevention, energy efficiency, solid waste disposal and enforcement and monitoring of quality standards.
 - National **cultural heritage** includes the use of traditional medicine, national treasure owned by the entire Chinese population that has been practicing it for centuries.
 - **Community Health, Safety & Security:** the factory spaces under the project in the enterprise parks and those in private factories will be built/managed to specifications which respect labour and working conditions, community health and safety based on the good quality regulation in China that are designed to protect public and worker safety against the potential risks associated with exposure to toxic chemicals, hazardous wastes, and otherwise dangerous material.
 - **Ethnic minorities** are mainly present in 2 counties and well-integrated into local communities. Ethnic minorities will not be singled out as this may drive a wedge between the community, which does not exist. Nevertheless, an IPPF is attached including free and prior informed consent process.
 - **Labor and Working Conditions** are highly regulated in the project counties and there is limited likelihood of violation or deviation.
 - **No resettlement** is foreseen under the project but the project may lead only to minor economic displacement and temporary change of land tenure (lease type of arrangement).
 - **Direct investments:** The project will screen partner enterprises to ensure they have and disclose environment and social governance system in line with government standards.

J. Climate Risk classification

79. The **climate risk classification** for the project is assessed as **low** (Annex 5). The project will be implemented in 7 counties which are located in the subtropical monsoon humid climate zone with continental characteristics. The climate-related hazards include rainstorm, drought, high temperature, flooding, and cold temperatures. The rainy season lasts from March to July, with a rainfall of 600-1000mm, and rainstorms and floods occur frequently. Droughts also occur frequently from July to September, with rainfall of about 300mm. The high temperature of the south wind and high evaporation further worsen the conditions. The risk sensitivity and vulnerability could be mitigated to some extent with project investments. Water-saving irrigation technologies and water tanks are expected to reduce the loss due to droughts. Government offers agricultural meteorological index insurance to address the risks of climate change and reduce farmers' losses. The project will be piloted such insurance for agroforestry. The project will also contribute to climate mitigation through improved plantation management.

4. Implementation

K. Organizational Framework

a. Project management and coordination

80. **Lead Project Agency.** The project will be executed and coordinated by the Provincial Forestry Department (PFD) in Hunan. This is determined by the provincial government in line with the sector responsibilities/authorities and confirmed by design assessment of the capacities of the PFD and its county subsidiaries. A Provincial Project Management Office (PPMO) will be set up in the PFD. Specifically, the Provincial Forestry Fund Station (PFFS) will undertake the day-to-day coordination and management of the project. The PPMO in the PFFS will be staffed adequately with the key functions necessary for the management of the project, including but not limited to an executive Project Director, a planning, M&E and Knowledge Management Officer, a staff coordinating SECAP work, Gender and Youth/ Social Inclusion, Finance Officer, Accountant, agribusiness investment officer etc. The PPMO will involve technical experts in the province relevant to the three value chains through a technical advisory group to provide technical assurance and guidance to the project, including technical review of the production management plans and business plans. The Department/Bureau of Finance (BOF) at Provincial/County level will be responsible for administering project resources, including the IFAD loan and counterpart funds.
81. **Inter-agency Coordination** arrangements will be established to review both strategic and operational aspects of the HGDP as well as ensure implementation of China environmental and social safeguards policy. An Inter-departmental coordinating mechanism will be established at the provincial level for this purpose composed of departments including forestry, finance, development reform at the least. At the county level, the Vice Governor will lead the county level coordination and supervision through a leading group with member agencies including forestry, finance, agriculture and rural affairs, development reform, water, land, environment protection. This mechanism will serve the role as steering committee of the project, while facilitating the implementation of the HGDP and ensuring that the assistance from other agencies is provided in a timely and effective manner such as the agriculture input subsidies, technical assistance for the plantations, the infrastructure investments. The Women's Federation (WF) and Youth League (YL) in the counties will be assigned responsibilities in supporting women and youth related activities and leverage opportunities for further supporting women and youth in the project area.
82. **County Project Management Offices:** County Project Management Offices (CPMO) will be established at the County Forestry Bureau (CFB) in each county. Responsibilities of the CPMOs will include beneficiary targeting and implementation planning, overseeing business planning, coordinating with CDICs for value chain investment from either government or private sector at the farm level and coordinating with institutions responsible for social and environmental safeguards. In addition, the CPMOs will undertake project management tasks such as financial management, procurement, knowledge management and project monitoring and evaluation etc. CPMOs will be staffed adequately to perform the key functions for the management of the project, including but not limited to a Project Director, a planning and M&E and KM Officer, focal points for SECAP, gender and youth, a financial officer and accountant, etc. Specifically, county Women Federation (WF) will be assigned as a deputy director member of the CPMO to facilitate women's participation. Short-term technical assistance will also be procured through a consultant or service provider when required. Relevant technical bureaus in the counties will also be mobilized to support implementation of the related project activities.
83. **County Development Investment Company (CDIC).** Each county has identified a public sector agency which will receive the IFAD loan funds directly through the BOF and will work in partnership with the CFBs to coordinate their efforts in the production and processing of the selected value chain in each county. This will start with an initial assessment of capacity of each CDIC to implement including against the project's established investment criteria. They will use the loan to support, through subsidies and equity investments, stakeholders ranging from smallholders, to cooperatives to SMEs (either private or State owned) both for the production and the processing side of the value chain. Under the guidance of CFB, CDIC investment will maximize engagement of and benefit to smallholders as the targeted beneficiaries of the project. They will also operate under strict socio-environmental safeguards. The CFB will further refine the investment criteria (Table 3) to ensure participation of smallholders, women and youth in both the production and processing of the selected value chains. The CDICs will be expected to provide regular reports to the CFBs regarding the investments made as part of the project and the extent to which these have contributed to the overall project objectives. CDICs will follow prevailing government rules and regulations guiding their investment activities from planning, approval to implementation, accounting, supervision and accountability etc. CDICs investments are supervised by the county governments through the State Asset Management Commission and the Industrial and Commercial Bureaus, as well as upper level administrations as necessary.
84. **Village Implementation Groups (VIGs)** will be established in the administrative villages targeted by HGDP. VIGs, with the guidance of township government office, will support the project implementation in functions such as beneficiary engagement and targeting, monitoring and grievance redress, facilitating households' partnership with enterprises, O&M of project supported public infrastructure at community level, etc. Each VIG shall be headed by the Chief of the village committee and composed of 7-8, including 4-5 farmer representatives with a minimum women representation of 50% and at least one or two youth representatives.

b. Financial Management, Procurement and Governance

85. **Financial management organization and staffing.** The financial operations of the project within the PPMO and County PMOs will be distinct, and ring fenced from the country public financial management. A Project Implementation Manual which describes the financial management and procurement arrangements is outlined in Annex 8 Section II. The project will use the accounting software (already tested and tailored in other IFAD funded projects in China) for producing IFRs. The service providers proposed for implementing Components 1 and 2 will have capable staff and a financial management (FM) system for managing project funds with qualified Finance staff, safeguarding assets and providing periodical financial reports and other required reports to the PPMO.
86. **Budgeting:** Each County PMO will prepare a detailed Annual Work Plans and Budget (AWPB) and an annual procurement plan in the IFAD format. The project budget will be developed by component and by categories. Depending on available function of the accounting software and the staff capacity, AWPBs might be integrated in the accounting software or maintained in Excel spreadsheet with comparison against the expenditure extracted from the accounting software. The AWPB will be approved by the PPMO and submitted to IFAD for non-objection 45 days before to the start of the relevant fiscal year.
87. **Disbursement and funds flow:** One designated account (DA) in USD or EUR (depending on Government decision regarding the currency of the loan) will be opened at the Hunan Provincial Department of Finance for receiving funds from IFAD. The treasury accounts of each county (County Bureaus of Finance) will be used as Project accounts (PA) in local currency for receiving fund transferred from the DA. PAs will be used to finance all project activities and operational costs. Fund flow will follow the revolving fund mechanism which is outlined in the IFAD Handbook of Financial Management and Financial Control and the FMFC Letter.
88. **Internal control, accounting and financial reporting:** The FM system will be supported by rigorous treasury system of the County Bureaus of Finance (presenting county governments) who will be monitoring and verifying the reporting of expenditures. The project will apply IFAD anti-corruption policy which will be embedded in the PIM to guide project operation. Key internal control procedures, including segregation/independence of functions for accounting, payments, procurement, and the reconciliation of accounts will also be specified in the PIM and Financial Management manual. User access and authorization for the accounting software will also be outlined. The Chinese Accounting Standards (CAS) will be applied for the project annual financial reporting and daily accounting. The CAS are acceptable to IFAD. IFR format and submission deadlines for the annual financial reporting are detailed in the FM manual in the PIM. The financial reporting including reporting on in-kind contributions required by IFAD will be initially prepared by each county CDIC and provided to their county BOFs and to PPMO, who will consolidate that information when preparing consolidated IFRs and annual financial statements. The CDIC will also be submitting their regular internal audit reports (if available) and annual audited financial statements to PPMO and to IFAD when requested.
89. **External auditing:** Project financial reports will be audited by the Provincial National Audit Office (NAO). The Audit report will follow specific format and timeframe as specified in the IFAD Handbook for Financial Reporting and Auditing, i.e. submission to IFAD within 6 months after the reporting period. A management report with comments on project internal controls will be provided as an integral part of the audit report. NAO will follow Auditing Standards acceptable to IFAD.
90. **Procurement:** Inherent risk for procurement was assessed as moderate. Legal, regulatory and policy framework are clear and mainstreamed with international procurement practices. There are complete system frameworks on procurement and corresponding laws and regulations in China. The domestic supply market is sufficient and the conditions for the implementation of international funded projects are favorable. The stakeholder support to strengthen integrity in procurement is relatively weak due to the lack of enough channels for engagement and feedback that are promoted by the government. Remedial actions will be elaborated in the PPA and the residual risk of procurement is rated as low. The PPMO is basically capable of implementing the procurement of IFAD funded projects. The sustainable procurement capacity building for all the procurement participants at each level will be taken into account throughout the entire project lifecycle.
91. Procurement of Goods/Works/Consulting Services financed by IFAD will be carried out in accordance with the project Financing Agreement (FA) and with IFAD's procurement framework which consists of Procurement Guidelines, Procurement Handbook, Project Procurement Arrangement (PPA), Procurement Tools and National Procurement Framework of People's Republic of China. The procurement activities financed by government shall align with the national procurement legislations and regulations including China Bidding Law, China Government Procurement Law and other relevant manuals and guidance. The following specific principles shall be complied with:
- All procurement activities financed by IFAD must be contained within the Procurement Plan (PP), which shall identify the procedures that must be implemented by the borrower/recipient in order to ensure consistency with the IFAD Project Procurement Guidelines. The first 18-month procurement is included in Annex 7;
 - The principle of Ethics, Accountability, Competition, Fairness, Transparency, 3E (Efficiency, Effectiveness and Economy) and Value For Money shall be applied throughout the entire project life to facilitate procurement activities and ensure the maximum benefit of project construction
 - Detailed provisions on procurement (e.g. procurement methods, prior review arrangements, the thresholds, and award-related protests and appeals) will be prescribed in the PPA.

L. Planning, M&E, Learning, KM and Communication

a. Planning, M&E, Learning, Knowledge Management and Communication

92. **Planning.** The project will be implemented on the basis of an Annual Work Plan and Budget (AWPBs) which identifies the activities that will be carried out in each Fiscal Year, the implementing agency, the resources and the time needed to complete them and a procurement plan. The Provincial Project Management Office will consolidate the AWPBs prepared by each county and submit it for IFAD's 'No Objection' prior to its effectiveness. An indicative AWPB for the first year is given in Annex 6.
93. **ORMS, Core Indicators and log-frame:** The Project's logical framework (Annex 1) will serve as the key document for supporting results-based and objectives-oriented implementation. Results will be measured at the level of outputs in the initial years and later the focus will be on the outcomes and an assessment of the impact in terms of the increase in income, revenues, employment generation and empowerment. The outreach will be monitored by gender, age and ethnic to track the participation of women, ethnic minorities and youth. IFAD core indicators and project-specific indicators included in the project's log-frame will be monitored regularly. Log-frame results will be regularly updated and inputted in IFAD's Operational Results Management System (ORMS) based on project reports. CPMOs will be required to track each of these indicators and include them in the MIS system of HGDP.
94. **Monitoring and Evaluation (M&E).** The M&E is a cross-cutting management function spanning the entire project cycle, and it is key for tracking progress and supporting decision-making. Key M&E deliverables required during project implementation would include the following;
- Start up: recruitment of M&E service provider if PMO is not able to assume the functions itself; assignment of M&E focal points at all levels; validation of TOC and Log-frame; M&E plan; set-up of the Management Information System (MIS)^[13]; Core Outcome Indicator (COI) baseline survey and report; orientation for M&E focal points.
 - Implementation: elaboration of AWPB; semi-annual and annual progress and results reports; contribution to annual supervision missions; COI mid-term survey and report; training on M&E.
 - Completion: COI completion survey and report; project completion report; impact assessment when required.
95. For each M&E deliverable, IFAD will provide further technical explanations and guidance to the PMO referring to related manuals and guidelines. Full ownership and accountability of the M&E work needs to be taken by the PMOs to ensure quality deliverables and timely utilization of information. The project will ensure M&E related activities are included and budgeted in the AWPBs. In addition to implementation progress monitoring, the project progress towards scaling up will be adequately monitored and reported during implementation.
96. **Knowledge Management (KM)** will be used as both as an adaptive management tool to help the project to build practical and actionable knowledge and know-how that lead to improved project performance and results, and support innovation, scaling up and country-level policy engagement. The project will ensure KM related activities are included and budgeted in AWPBs. KM responsibilities will be assigned to focal points at PMOs of all levels, and staff should benefit from guidance and training for KM implementation. The project KM activities/approaches could focus on, but not limited to: (i) capturing and documenting experiences, lessons, and successful cases resulting from project activities, especially regarding the project's innovative models and approaches that could be replicated and scaled-up, inform policy-making or shared with other developing countries through South-South and Triangular Cooperation(SSTC); (ii) study tours, exposure and exchange visits, for peer learning and sharing knowledge; (iii) organizing and participating in workshops to share knowledge, innovations and best practices; and (iv) well designed and operational information management systems, including electronic archives that enable easy access to data, reports and other documentation.
97. HGDP is expected to contribute several key knowledge management products. These knowledge products will be targeted towards smallholders interested in building their capacity for climate adaptation by acquiring improved skills and knowledge regarding soil and plant management practices especially during droughts, temperature variations, pest and disease infestation, etc. The material developed will be shared during the sustainable forest/plantation management trainings as well as through the Forestry Bureaus at the county level and also be posted on a website that will be developed by the project and through social media platforms. The technical knowledge regarding improved production techniques of the selected value chains will also be widely shared through a range of electronic platforms and distributed through leaflets by the County Forestry Bureau and also disseminated by the Ministry of Agriculture. HGDP will also develop a practice note regarding its experience with the model which compares different models of enhancing carbon sequestration, its monitoring and tracking systems. This product can be disseminated at the County level in the country to help the Government meet its objectives of carbon neutrality.
98. **South-South Triangular Cooperation.** HGDP has identified several areas in which it can play a lead role in enhancing cooperation with other countries for South-South Cooperation. During the design, HGDP included a representative from the International Bamboo and Rattan Organization (INBAR)^[14] to sharpen the project's offer on South-South cooperation. INBAR has established its reputation in raising production and processing standards, promoting safe, resilient bamboo construction, restoring degraded land, capacity-building, and informing green policy and Sustainable Development Goal objectives. As a SSTC and Knowledge centre, the ICO will leverage its existing working relation with INBAR to support the project and the centre in knowledge production and sharing including through IFAD's Rural Solutions Portal (RSP), policy refinement, capacity building, value chain development, action research, and providing access to global fora on bamboo. Additionally, HGDP and the IFAD SSTC and Knowledge Centre will benefit from the global recognition of China as a knowledge and industrial hub for bamboo development and would utilise this in scaling up the sharing of the country led knowledge generated with other countries. INBAR will support to transfer the successful experience of HGDP especially in promoting innovative technologies for sustainable bamboo plantation management, enhancing bamboo-based smallholder livelihoods and value chain development, and fostering the substitution of plastics through the global initiative co-led with China. INBAR, HGDP and the SSTC and Knowledge Centre will also explore exchange visits and cross-learning opportunities in countries to be identified amongst INBAR's 50 member states in Africa, Asia and Latin America. INBAR has agreed to provide a platform for sharing ongoing research outputs and engaging in a dialogue for mobilizing INBAR member states and international community to accelerate the progress of bamboo as a substitute to plastics. The SSTC and Knowledge centre would also consider the growing popularity of agro-industrial integrated platforms concept in Africa and Asia similar to the agro-enterprise parks under HGDP, and will partner with sister UN

Agency UNIDO to harness the lessons from operating these parks under the HGDP, and in collaboration with APR, ESA and WCA, share them with identified countries through the SSTC mechanism.

99. **Policy Engagement** HGDP is following a multi-faceted approach including provision of public sector input subsidies, facilitation of agro-enterprise park and enhancing private sector production and processing base while strengthening their social and environmental safeguards/policy. The strategy also relies on the capacity of cooperatives and small enterprises to organize smallholders and integrate them into high-value markets. HGDP's experience of working closely with CDICs to develop agro-enterprise parks and, in turn their ability to attract private sector investments and integrate smallholders will provide important lessons for other countries wanting to grow private sector engagement in the agro-forestry sector. The experience can guide the State, Provincial and County level Governments regarding the most effective strategies for rural revitalization. HGDP can guide the Government on which policy element has been the most effective in helping to meet the Government objectives and formulate policy based on the experience. Within such, the project can also contribute to review and implement recently adopted new standards for private sector ESG in context of such agroforestry projects in collaboration with KfW. Another key area in which HGDP can assist in helping to refine policy and regulation is regarding the mechanisms for measuring and tracking carbon sequestration which the project is piloting. In addition, INBAR will assist in facilitating policy and institutional coordination framework for the bamboo sector.
100. Given the focus of HGDP on enhancing employment for women in the private processing sector, there is also scope for policies to reduce gender inequality in the labour market and any gender gaps which exist in wages and the need to have a supportive policy for working women in terms of working hours, safety, provision for child and elderly care and leave during pregnancy and paternity and maternity leave, protection, etc. HGDP could help orient firms on how to enhance their working conditions and terms for hiring women for increasing the retention rate of women employees and offering them more attractive employment conditions. HGDP could help the participating enterprises develop a reputation as firms following gender sensitive policies and can be presented with gender equality awards to highlight their profile and provide further encouragement to others to emulate their experience.
101. Besides, HGDP will most likely be participating in the IFAD partnership with UN Global Compact in procurement, this may eventually offer the government some experiences in promoting ESC standards among Chinese companies and expanding their engagement in global procurement.

b. Innovation and scaling up

102. HGDP will aim to contribute to the realization of the three inter-related COSOP thrusts of innovation, scaling up and knowledge management to inform policy. There is considerable scope in the HGDP for innovation and scaling up. The types of innovative aspects that are expected to be implemented by the Project are introduced in this section together with a discussion of the scaling-up potential of each.

- Consolidating the approach to smallholder sustainability: IFAD is expecting to further strengthen the Government's graduation approach in China which has moved from providing social safety net payments to one where the smallholders and the more vulnerable will be supported through production support, employment creation and access to markets. HGDP will facilitate the scaling-up of models of production in which the cooperatives can help smallholders exercise the option of securing either long-term lease for their land and a share in the dividend income. Evidence suggests that the creation of diversified sources of income and employment has helped to move people out of poverty and has enabled them to secure more sustainable livelihoods. HGDP intends to continue to scale up this approach through the selection of high value-added crops which are most produced by the smallholders such as the three selected value chains.
- Innovative models for private sector participation to inclusive and green value chain development: HGDP will be supporting a range of models in which CDICs will be experimenting with some innovative partnership and financing models as well as effort to strengthen social and environmental safeguards/framework. The first of these is designed to build strong and direct partnerships with smallholders through their cooperatives. CDICs and State Forestry farms will experiment with establishing arrangements through long-term lease of land or sharing of dividends with farmer cooperatives for enhanced production and buy-back for medicinal herbs and plants and Camelia oil tea such as in Hengshan. In several counties, private enterprises will enter into an arrangement with farmers under which it will take over the production risk and will operate and manage the farms and provide all inputs to facilitate adoption of climate adapted and sustainable practices, including seedlings, organic fertilizers, and technical assistance for proper farm management including pruning, weeding, irrigation, etc. Mechanisms will be designed to empower smallholder farmers and their cooperative to negotiate fair agreements and ensure transparent stakeholder engagement and feedback mechanisms.
- Introduction of innovative processing technologies: There are a host of new technologies which are available in the market or are in the research and development phase which HGDP will help to test and disseminate. These include new technologies for extraction of Camelia oil in a manner which enhances its quality and is more cost-effective. There are also innovative technologies for improving Bamboo germplasm and silviculture contemplated. The Project will also help to mitigate plastic pollution through substitution of plastics through increased bamboo use which is one of the most promising species due to its fast growth, its large distribution and versatile applications with over 10,000 documented uses. In this regard, the Project will collaborate with the International Bamboo and Rattan Organization (INBAR) and China's Bamboo as a Substitute for Plastic Initiative.
- Improved climate smart plantation practices and Piloting Carbon Monitoring and certification systems: Project expects to collaborate closely with the Carbon Sequestration Centre within the PFD and the Carbon Platform at the provincial level in Hunan. Together with them, HGDP will pilot a carbon monitoring methodology and assess the potential for carbon trading and securing additional benefits for the smallholder bamboo producers. There is considerable potential for scaling up this initiative if the properties of bamboo as a store of carbon are properly understood and a mechanism developed to provide credits for it. The China Certified Emission Reduction (CCER) has been reopened recently and the first set of carbon methodologies including afforestation has been launched. While none of the three selected value chain crops currently fulfil the requirement of the new CCER afforestation methodology, new CCER methodology on sustainable management are expected and these could open up and provide opportunities for mitigation and generating economic benefits. Meanwhile, the schemes of forest carbon ticket and carbon inclusiveness aiming for carbon neutrality have been developed in some provinces to promote local carbon trading, based on the new policy titled "*Plan for Deepening the Reform of the Collective Forest Tenure System*".¹¹⁵¹ HGDP can help to build technical capacity of government and private sector bamboo owners to estimate their carbon credit potential using advanced technologies. Furthermore, such monitoring will enable entities to review and improve farming practices against their impacts on carbon storing. For example, INBAR has developed a Mobile App that supports effective inventory of different types of bamboo species with modest training of local experts. In addition, the Project will enhance smallholders and government staff capacity in Measuring, Reporting and Verification (MRV) of carbon credits. The Project will also help enterprises and farmers use the "Carbon Label" to develop a valued global product that facilitates the export of its commodities.

M. Project Target Group Engagement and Feedback, and Grievance Redress

a. Project Target Group Engagement and Feedback.

103. A Stakeholder Engagement Plan (SEP) has been developed for HGDP to ensure meaningful engagement of project stakeholders including smallholder farmers, women and youth during project design and implementation, in line with the policies of Hunan province, to ensure that public consultation be conducted with all stakeholders involved in a plan to collect their opinions and suggestions, including advice, needs and directions of public opinion on the proposed project from mass, online, mobile and other emerging media. As part of the SEP, Village Implementation Groups (VIGs) will be established in the administrative villages targeted by HGDP. VIGs, with the guidance of township government office, will support the project implementation in functions such as beneficiary engagement and targeting, monitoring and grievance redress, facilitating households' partnership with enterprises, O&M of project supported public infrastructure at community level. The SEP further outlines the need to create a structured and proactive approach to managing interactions with stakeholders throughout the project's life-cycle. It aims to ensure that the project's objectives align with stakeholder expectations, foster open communication, and promote inclusive decision-making. The program's timing is aligned with the project's various phases, from planning and implementation to monitoring and evaluation. Transparency plays a pivotal role in the HGDP SEP by ensuring that stakeholders have ready access to accurate and timely information regarding the HGDP Project through the adoption of robust public awareness campaign in the project areas; conduct of regular information sharing workshops, establishment of a dedicated project website and WeChat account; and utilizing local community broadcast stations and WeChat account/WeChat groups to will be used to disseminate project information to all villages in local languages, amongst others.
104. Given the focus of the project on women and youth, the Hunan Women's Federation and the Community Youth League will be engaged to as key stakeholders in the project, particularly in the organization of the smallholders and cooperatives. In the initial stage of project intervention at community level, the project will systematically apply Free Prior Informed Consent (FPIC) to ensure that the community is willing to participate in the project and has all the information necessary to take a collective informed decision. This FPIC process involves communicating in the preferred language of the community and organising focal group discussions which provide the opportunity for smallholders, women, ethnic groups, youth, and other groups to receive information and express their views. Staff of PMO, CPMO, WF and CYL will also be asked to undertake regular feedback from the target beneficiaries and recommend any adjustments for effective and transparent participation. Annual Supervision missions will also review the process of target group engagement and obtain periodic beneficiary feedback.
105. All SECAP documents, such as the IPPF, Stakeholder Engagement Plan, FPIC Implementation plan will be disclosed locally at county level before project implementation. In case consultation will need to be repeated for a target group from time to time as the project evolves, consulted people will be updated on issues that were raised in previous consultation meetings to ensure their concerns, including grievances are addressed timely and appropriately.

b. Grievance redress.

106. Building on existing Hunan Provincial policies and practices on information disclosure and grievance redressal, and also building on existing GRMs at community and enterprise GRMs, HGDP will adopt an easily accessible grievance mechanism at the project-level to receive and resolve concerns and complaints of people who may be adversely affected or potentially harmed by the project or harbour any grievance in terms of their participation, any negative fallout or impact, etc. There are existing grievance system in Chinese Government from central to county levels, and project stakeholders can access the government complaint system of project counties, municipalities and province through websites, telephone and WeChat. The grievance system of Department/Bureau of Forestry and the Forestry Bureaus at the county level will be accessible and publicized by the PMOs and CPMOs, and also included in the HGDP website.
107. The project will put in place mechanisms at the provincial and county level to establish a project-level Grievance Redress Mechanism (GRM) including for SEA and violations of worker rights and conditions. HGDP will set up mechanisms for queries or clarifications about the project. Questions will be answered, problems with implementation will be resolved, and complaints and grievances will be addressed efficiently and effectively. The GRM focal point will (i) work proactively with the affected parties to resolve complaints; (ii) ensure that the complaints procedure is responsive and operates effectively; and (iii) maintain records of all complaints and their resolutions. In addition to existing government channels for grievance redress, the PMO and the CPMOs will all designate a person to review such grievances and provide a WeChat number where such complaints can be registered.
108. In addition to the project-level GRM, affected people may also access IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals, communities and other stakeholders to contact IFAD directly and file a complaint if they believe they are or might be adversely affected by HGDP which does not comply with IFAD's Social and Environmental Policies and mandatory aspects of SECAP. The project-level GRM and IFAD's Complaints Procedure shall be fully explained to stakeholders during the project start-up and beneficiaries during the awareness building on project activities. Details of the complaint procedure can be found at <https://www.ifad.org/en/accountability-and-complaints-procedures>.

N. Implementation plans

a. Supervision, Mid-term Review and Completion plans.

Implementation Readiness and Start up plans

109. It is recommended that the Hunan Provincial Forestry Department initiate the following measures for efficient project implementation readiness and start-up.

1. Request all counties to confirm their implementation plans and secure the investment commitments from all CDICs, public and private agro-enterprises and identify the cooperatives and the smallholders that will be involved in the various stages of the selected value chains.
2. Initiate the process that will enable it to meet the IFAD disbursement conditions to expedite disbursement once the Project has been approved.
3. Review the Project Implementation Manual and make appropriate amendments to ensure it is available in a timely manner for the Project Management Office and the County Project Management Offices.
4. Identify areas in which there might be need to use the retroactive financing arrangements to facilitate the smooth launch of the project, retroactive financing may be used based on eligible expenditures that meet the criteria of reasonable cost of goods, works and services required for the project and are procured in conformity with IFAD's Procurement Guidelines.
5. Make arrangements to open one separate Designated Account (DA) at the provincial level in the Provincial Department of Finance for IFAD loan either in USD or EUR (the currency of the DA will be dependent on the Financing Agreement negotiations).
6. IFAD will organize a start-up workshop to brief all provincial and country level staff from the PMO and CPMOs to provide them orientation in IFAD's financial management, procurement and monitoring and evaluation and supervision systems and procedures.

Supervision, Mid-term Review and Completion plans.

110. **Supervision.** IFAD will conduct direct supervision of the project, in close cooperation with the government. IFAD's annual direct supervision will mainly relate to the project's physical and financial progress, implementation management's efficiency and implementing agencies' performance at all levels. Supervision missions will primarily address issues related to (i) Effectiveness and development focus, (ii) Sustainability and scaling up, (iii) Project management, and (iv) Financial management and execution.

111. **A Mid-term review** will be conducted by IFAD. This is tentatively scheduled for 2027. The MTR can provide an important opportunity to assess progress, performance and any emerging impact of the project and make any course corrections and refine and modify key aspects of the project in close participation with key stakeholders.

112. **Implementation support** will be provided by IFAD as follow-up of its direct supervision and progress review and in response to any additional support required by the project. Support will be conducted on a demand-driven basis and in accordance with needs identified.

113. **A Project Completion Report (PCR)** exercise will be carried latest three months after the project completion date to fully capture and assess: (i) the project's performance, including its relevance, effectiveness, efficiency and sustainability, and (ii) outreach and targeting, income and assets, human and social capital, food security, agricultural productivity, institutional and policies, (iii) partners' performance including IFAD's and Government, and (iv) additional development aspects related to gender equity and women's empowerment, impact on youth, access to markets, innovations, scaling up, environment and NRM, adaptation to climate change and climate mitigation.

Footnotes

- [1] CDIC are state owned profit-oriented entities supporting enterprise development for the benefit of local communities through investments and/or direct management.
- [2] International Monetary Fund. May 2021.
- [3] Statistical Bulletin of National Economic and Social Development of Hunan Province for 2022
- [4] Statistical Bulletin of the People's Republic of China on National Economic and Social Development for 2022
- [5] Statistical Bulletin of National Economic and Social Development of Hunan Province for 2022
- [6] China's Rebalancing and Gender Inequality Prepared by Mariya Brussevich, Era Dabla-Norris, and Bin Grace Li¹ Authorized for distribution by Era Dabla-Norris May 2021.
- [7] Cui Yan, Zhang Bin and Zhao Changjie. Study on Influencing Factors of Rural Youth's willingness to Return Rural Home. Chinese youth social science, Vol. 41, Sum No. 222, May 2022.
- [8] Luo Shan. Life Orientation: The Practical Logic and Risk of Returning Youth Entrepreneurship in the County. Contemporary Youth Research, Sum No. 383, No. 2, March 2023.
- [9] Hao Yaming. On Chinese Characteristics of Human Rights Protection of Ethnic Minorities. Guangxi Ethnic Studies, Sum No. 113, No. 3, March 2013.
- [10] Achieving Rural Transformation: Results and Lessons from Impact Assessments. IFAD, 2021.
- [11] 15 Mu= 1 Ha
- [12] Gender-based violence and hegemonic masculinity in China. An Analysis based on quantitative Research. China Population and Development Studies. Xiangxian Wang et al. August 2019.
- [13] The MIS is a database system developed for the project, which will integrate information regarding project planning, financial management and physical progress, allowing real-time reporting.
- [14] Established in 1997, the International Bamboo and Rattan Organization (INBAR) is an intergovernmental development organization that promotes environmentally sustainable development using bamboo and rattan. It is currently made up of 50 Member States. In addition to its Secretariat Headquarters in China, INBAR has five Regional Offices in Cameroon, Ecuador, Ethiopia, Ghana and India.
- [15] Issued by the central government on 25th September 2023.

China

**Hunan Green Development Project
Project Design Report**

Annex 1: Logframe

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Hunan Green Development Project

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	1 Persons receiving services promoted or supported by the project				Project M&E	ANNUAL	PMOs	Sustained investment from government to rural revitalization in the focused sectors/areas of this project
	Males	0	8700	17400				
	Females	0	8700	26100				
	Young	0	1740	13050				
	Not Young							
	Indigenous people	0	870	2175				
	Non-Indigenous people							
	Total number of persons receiving services	0	17400	43500				
	Male	0	50	40				
	Female	0	50	60				
	Young	0	10	30				
	1.a Corresponding number of households reached				Project M&E	ANNUAL	PMOs	
	Women-headed households	0	870	2175				
	Non-women-headed households	0	16530	41325				
	Households	0	17400	43500				
	1.b Estimated corresponding total number of households members				Project M&E	ANNUAL	PMOs	
	Household members	0	60900	128325				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Project Goal Promote rural revitalization and enable smallholders to benefit from rural transformation through a private sector led green growth model which is inclusive and environmentally sustainable.	Supported households reporting increased income from the project supported value chains				COI survey	Baseline, Mid-term and completion	PMOs, M&E service provider	i) Continuity of economic, social and marketing stability in the target project area; ii) Carbon sequestration will be increased through improved climate smart management of the plantations
	Households	0	35	80				
	Women-led Households	0	35	80				
Development Objective Increase smallholder's capacity for increased production and improved quality, climate resilience and access to markets through the development of three selected value chains namely bamboo, camellia oleifera and medicinal plants in seven selected counties in the Hunan Province	2.2.6 Households reporting improved physical access to markets, processing and storage facilities				COI survey	Baseline, Mid-term and completion	PMOs, M&E service provider	i) Productions of smallholder farmers are linked to the processing and storage facilities supported by the project; ii) Smallholder farmers are willing to use climate-smart technologies and join the selected value chains in support of private sector player, cooperatives and village-based entities; iii); Employment opportunities generated from the project investment in private sectors of the selected value chains are attractive to local people, particularly to female and youth. Meanwhile local
	Households reporting improved physical access to processing facilities	0	35	70				
	Size of households	0	4060	16530				
	Households reporting improved physical access to storage facilities	0	35	70				
	Size of households	0	4060	16530				
	Households reporting improved physical access to processing facilities	0	1400	5700				
	Households reporting improved physical access to storage facilities	0	1400	5700				
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI survey	Baseline, Mid-term and completion	PMOs, M&E service provider	
	Total number of household members	0	15487	82600				
	Households	0	35	80				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Households	0	5250	28000				people are qualified or could be trained to meet the employment requirement; iv) Communities and beneficiary participation are fully consulted during project design. The baseline, mid-term and completion surveys could interview the same group of sampled respondents for empowerment assessment.
	2.2.1 Persons with new jobs/employment opportunities				COI survey	Baseline, Mid-term and completion	PMOs, M&E service provider	
	Males	0	480	960				
	Females	0	720	1440				
	Indigenous people	0	60	120				
	Young	0	720	1440				
	Total number of persons with new jobs/employment opportunities	0	1200	2400				
	SF.2.1 Households satisfied with project-supported services							
	Household members	0	25665	96244				
	Households (%)	0	50	75				
	Households (number)	0	8700	32625				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI survey	Baseline, Mid-term and completion	PMOs, M&E service provider	
	Household members	0	25665	96244				
	Households (%)	0	50	75				
	Households (number)	0	8700	32625				
	IE.2.1 Individuals demonstrating an improvement in empowerment							
	Total persons	0	25	64				
	Total persons	0	4350	24360				
	Females	0	25	60				
	Females	0	2175	15660				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Males	0	25	50				
	Males	0	2175	8700				
Outcome 1.Increased production & productivity	1.2.2 Households reporting adoption of new/improved inputs, technologies or practices				COI survey	Baseline,Mid-term and completion	PMOs, M&E service provider	Smallholder farmers will be organized through cooperative, village or private sectors for collective action and for provision of services and support.
	Total number of household members	0	11063	51625				
	Households	0	25	50				
	Households	0	3750	17500				
Output 1.1 Inclusive & Sustainable Production Management Plans developed	Inclusive & Sustainable Production Management Plans				Project M&E	Annually	PMOs, M&E service provider	The willingness of the smallholders, the cooperatives, village communes and private enterprises to participate in the project has been assessed by the County Governments
	plans	0	8	8				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output 1.2 Area under sustainable & climate smart management practices increased (incl. women & youth led)	Supported areas under sustainable & climate adaptive management practices				Project M&E	Annually	PMOs, M&E service provider	1) Cooperative, village or private sectors have the willingness and capacity to organize collective production with adopted sustainable & climate adaptive management practices; 2) The local government and related organizations have the willingness and capacity to organize tailored training activities for linked smallholder farmers.
	Bamboo production area	0	2400	4800				
	Camelia oil tea production area	0	2500	5000				
	Medicinal herbs production area	0	1700	3500				
	1.1.4 Persons trained in production practices and/or technologies				Project M&E	Annually	PMOs, M&E service provider	
	Total number of attendances to training sessions	0	13500	27000				
	Men trained in forestry	0	5400	10800				
	Women trained in forestry	0	8100	16200				
	Young people trained in forestry	0	2700	5400				
	Indigenous people trained in forestry	0	675	1350				
Total persons trained in forestry	0	13500	27000					
Outcome 2.Climate Adaptation & Enhanced CO2 sequestration	Households reporting improved access to climate adaptive infrastructures				COI survey	Baseline, Mid-term and completion	PMOs, M&E service provider	
	Households	0	25	55				
	Households	0	3750	19250				
	Household members	0	11063	56788				
	3.2.1 Tons of Greenhouse gas emissions (tCO2e) avoided and/or sequestered				2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and FAO's EX-ACT	Baseline, Mid-term and completion	PPMO, M&E service provider	
	Hectares of land	0	2500	5000				
tCO2e/20 years	0	250571	501142					

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	tCO2e/ha	0	37.7	37.7				
	tCO2e/ha/year	0	1.9	1.9				
Output 2.1 Key Infrastructure built & functional	2.1.5 Roads constructed, rehabilitated or upgraded				Project M&E	Annually	PMOs, M&E service provider	Supported infrastructures are responsive to actual needs and with good O&M plan.
	Length of roads	0	500	1000				
	3.1.4 Land brought under climate-resilient practices				Project M&E	Annually	PMOs, M&E service provider	
	Hectares of land	0	425	850				
Output 2.2 Model for carbon accounting developed	Bamboo and camellia plantations land monitored by the developed model for carbon monitoring and accounting				Project M&E	Annually	PMOs, M&E service provider	Model for carbon accounting developed
	Land	0	980	980				
Outcome 3. Increased value addition & Market share	2.2.2 Supported rural enterprises reporting an increase in profit				COI survey	Baseline, Mid-term and completion	PMOs, M&E service provider	1) Continuity of production and marketing stability of the three value chains in the target project area; 2) Local rural enterprises are committed to absorb local work labour and human resources
	Number of enterprises	0	8	8				
	Percentage of enterprises	0	60	100				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output 3.1 - Inclusive Business Plans developed & financed	Entities supported through inclusive, technically and financially feasible business plans (including enterprises and cooperatives)				Project M&E	Annually	PMOs, M&E service provider	The terms of engagement between the smallholders and cooperatives on the one hand and between the cooperatives and the private enterprises will be mutually beneficial and will ensure sustained growth and production of the model
	Entities	0	7	14				
	Women-led entities	0	3	7				
	Youth-led entities	0	3	7				
	Households benefiting from productive investment through implementation of business plans				Project M&E	Annually	PMOs, M&E service provider	
	Households	0	2895	5790				
Women-led Households	0	145	290					
Output 3.2- Enhanced Processing Capacity & Efficiency	2.1.6 Market, processing or storage facilities constructed or rehabilitated				Project M&E	Annually	PMOs, M&E service provider	Social, environment and climate risks identified will be properly managed through implementation of necessary management plans along the project implementation.
	Total number of facilities	0	11	23				
	Processing facilities constructed/rehabilitated	0	7	15				
	Storage facilities constructed/rehabilitated	0	4	8				
Output 3.3 - Product diversification	Product exhibition and e-commerce platform established				Project M&E	Annually	PMOs, M&E service provider	Social, environment and climate risks identified will be properly managed through implementation of necessary management plans along the project implementation.
	Exhibition and e-commerce platform	0	3	5				

China

**Hunan Green Development Project
Project Design Report**

Annex 2: Theory of change

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 2 Detailed Theory of Change & Graphic

The Theory of Change (TOC) of the project recognises that despite the profound transformation in the agriculture sector over the past forty years, China's agricultural production and operations still rely extensively on smallholders. The small scale of production, high degree of climate vulnerability and poor access to inputs and market access limit incomes of smallholders. Concurrently, private enterprises do not have sufficient capital to invest in their production base or processing capacity and need innovative partnerships with smallholders to enhance their revenue, diversify production and expand market share. Smallholders' fragmented landholding, lack of climate-adaptive infrastructure and their low technical, marketing & investment capacities together with low incentives and technical know-how for sustainable forest management, limit their ability to have a stable high-quality production which restricts their incomes while not lowering their risk. For women, who make up the majority of agriculture labour force due to male migration to urban areas and are responsible for many of the agriculture and domestic tasks these challenges are further compounded because of lack of opportunities, limited decision-making and access to resources and assets. Young people find it increasingly difficult to find productive employment in rural areas and tend to leave for work in the urban areas.

These constraints can be remedied by building partnerships with a dynamic private sector with the capacity to transform and revitalise the rural economy. The private sector has its own limitations linked to lack of (i) investment & working capital, (ii) infrastructure & processing equipment and difficult access to higher value markets. For this purpose, the private sector also needs additional investment for working capital, infrastructures and diversification which it has difficulties to secure from the commercial financial sector due to the short tenure, high collateral requirements and perception of high risk and potential for long term profitability of the agroforestry sector, its vulnerability to climate risks and the limited appetite to lend to this segment. Private enterprises are unable to engage with a large number of smallholders without intermediary institutions which can help them to reduce their transactions costs and realize economies of scale. The County Governments offer a supportive policy environment for the private sector and are both supporting cooperative development and beginning to establish agro-enterprise parks which will offer them basic infrastructure to establish processing facilities including eco-friendly technologies they could not afford otherwise (waste management, carbon emission reduction etc.). The access to these parks will help them save considerable up-front investment costs and focus their resources on energy saving equipment for processing and packaging.

A two-prong approach is taken towards ensuring integration of smallholders into the value chains:

- 1) strengthening smallholder cooperatives and village collectives and providing them technical training for climate adaptation and support through agriculture inputs and infrastructure for high value-added crops such as bamboo, Camelia tea oil and Chinese medicines and herbs which can enhance their productivity and resilience to climate risks. The cooperatives are expected to provide a strong platform for helping smallholders negotiate better terms of engagement with the private sector and establish a system for market access in long-term arrangements with the private enterprises.
- 2) building partnerships between the related enterprises and the smallholders including strong social and environmental requirements, including gender affirmative action, promoting women through their cooperatives. HGDP believes that these partnerships can assist the private enterprises and smallholders establish long-term mutually beneficial partnerships under which the private sector will offer a range of arrangements such as long-term lease and rental income or

share in dividend income and wage employment as well as technical assistance for enhancing production and productivity on the lands. The arrangements will also offer various risk sharing arrangements in which the risk of farming can be shared or assumed by one party or the other with commensurate terms of engagement. The arrangement also promises full buy back arrangements at a minimum price threshold. It is expected that these arrangements will help to improve management practices, increase incomes and revenues, generate employment directly and indirectly and improve the ecological environment and conserve biodiversity. Monitoring / traceability and accountability mechanisms will further ensure that such expectations are met.

The Project concept is premised on the following Theory of Change : IF smallholders particularly women and youth smallholders are better integrated in high value chain commodities and private enterprises in the same value chains are provided inclusive business development opportunities THEN together they can drive increased production & quality of produce, Climate Adaptation & Enhanced CO2 sequestration as well as Increased value addition & market share (these being linked to increased empowerment, revenues and employment for women and youth) BECAUSE 1) cooperatives/smallholders are inclusively organized, strengthened, empowered, and receive adequate technical advisory and additional incentives for sustainable agroforestry practices so the area under sustainable and climate resilient management of the selected tree crops and shrubs is increased. To ensure such benefit streams for smallholders; 2) technically and financially inclusive feasible business plans are developed and will guide investments that will further incentivize private sector engagement with smallholders, through infrastructure to service the selected value chains and reduce cost (I.e. road to reduce transaction costs etc.). Meanwhile, a system to gather benefits from increase carbon sequestration is developed, the number and capacity of energy efficient processing facilities is expanded. The above items 1) and 2) will ensure that there is growth in the volume of high-quality produce marketed which will generate employment opportunities while reducing emissions and improving carbon sequestration.

The gender strategy of HGDP is based on the evidence that women are interested in agriculture activities provided they are offered productive opportunities which can help to increase their productivity and incomes and are structured in a manner which helps them meet their various domestic and farm responsibilities. The selection of value chains like bamboo, Camelia oil and Chinese medicines and plants involve post-harvest tasks preferred by women and also contribute to enhanced opportunities for improving household food and nutrition security because of their high value added and as sources of food. HGDP believes it can achieve a target of 50% women participation. To encourage women's participation in HGDP, project staff will be given clear terms of reference which identify how gender will be mainstreamed, gender focal points will be identified in the County Forestry Bureau, and a strong M&E unit to monitor and report progress, etc. The project will ensure that the activities are organized and planned in a manner that will cater to the schedules and time constraints that women face due to their domestic responsibilities. The private enterprises will be given clear targets that monitor the employment creation by gender and youth, monitor wage differentials and specify the policies that promote a supportive and safe environment for women in the workplace. HGDP will build on the evidence that the agri-processing sector prefers to recruit women in the industry. Partnership will also be established with the All-China Women's Federation (ACWF) to provide support to women in the agriculture sector and leverage complementary programmes.

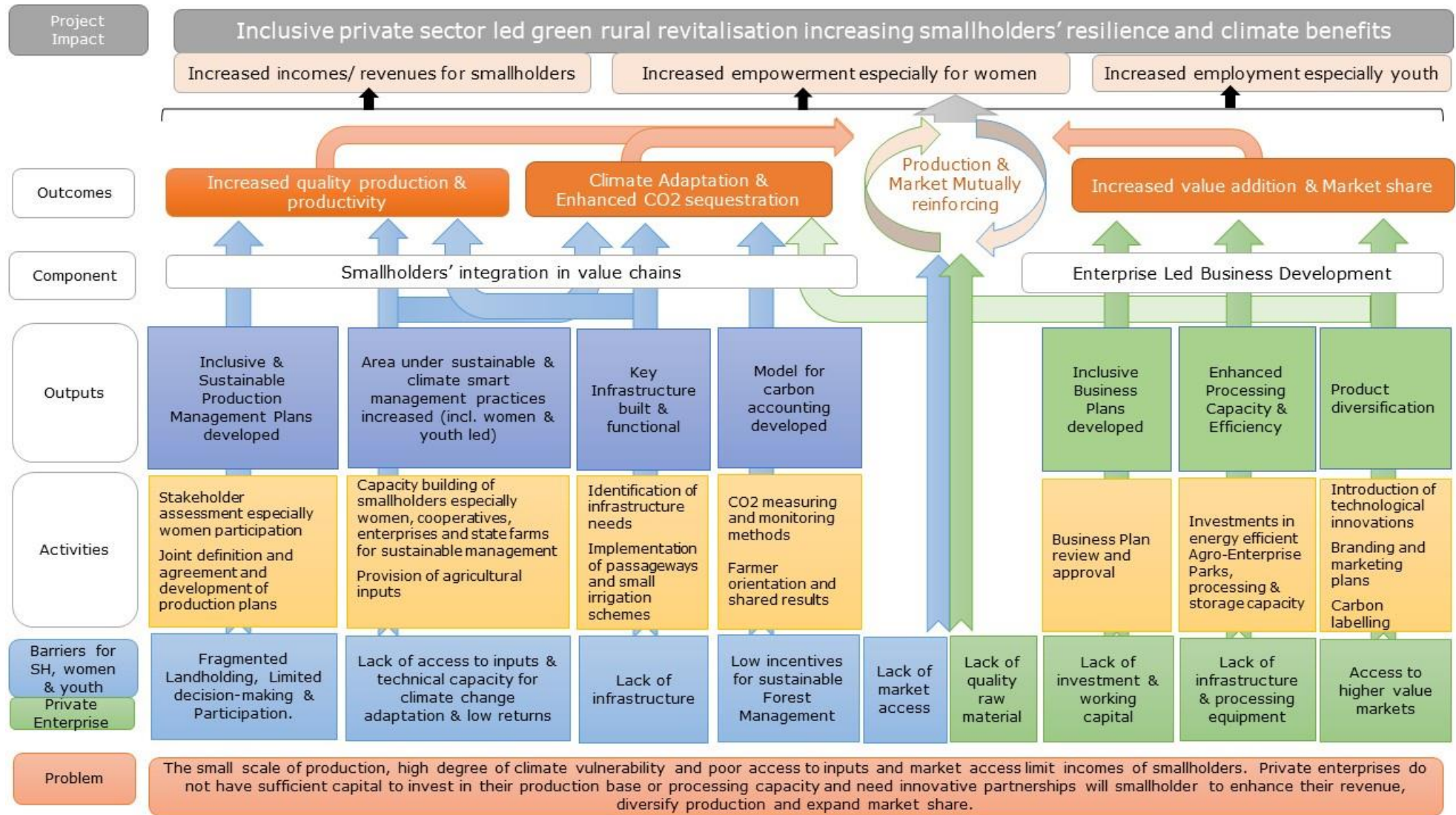
The TOC of HGDP appreciates that youth¹ are generally not interested in agriculture due to its seasonal nature, low wages, and the tedious nature of agricultural labour. Young people are pursuing more diverse career options which is supported by the government

through a range of policies to cater to the diverse needs of young people. However, young people can be attracted by tasks that involve the operation of mechanical equipment, transport, digital technology, marketing and those aspects of production and processing which offer better compensation such as jobs in factories. Private enterprises are also more willing to hire youth especially young women. Based on the expectation that the increased facilities for both production and processing can attract youth, HGDP has fixed a target of 30% for inclusion of youth. The employment of young men and women will be negotiated with the participating private sector enterprises and the agriculture cooperatives. This expectation is supported by the evidence of the large number of young women already employed in the processing of bamboo shoots and Chinese herbs and plants. The use of increased digital technologies in these industries is attracting more young people.

There is a potential for green and climate resilient growth by focusing on agroforestry commodities with high value added such as bamboo, Camellia Oil Tea² and a range of medicinal herbs. Through climate adapted and sustainable management of existing plantations of bamboo, rehabilitating lands for camellia oleifera production and promoting the under-forestry economy which includes Chinese medicinal plants, the project will increase and diversify income sources of the smallholders and enhance their resilience to climate change. Investment in climate adapted practice, soil conservation and water infrastructure will also reduce vulnerability to drought and other climate risks. Investments in organic production will reduce pollution risks. By providing different opportunities of integration in the value chain, the project will offer opportunities for smallholders to reduce risk by renting out land and getting lease or waged payment along the value chain. It will also lead to biodiversity conservation, strengthen the climate resilience of smallholders and contribute to China's commitment to curb emissions through carbon sequestration. By strengthening the production of high-quality products and increasing the value addition & market share of these products all stakeholders, and particularly women and youth, will benefit from a virtuous circle of higher demand for high value products.

²Camellia oleifera, which originated in China, is notable as an important source of edible oil (known as tea oil or camellia oil) obtained from its seeds.

Figure 1: Theory of Change



There are several key assumptions made in the TOC which include the following;

- The Governments at the Provincial and county level are committed to consolidating the achievements of poverty alleviation through a private sector led transformative model that supports this two-pronged approach of support (i) to the smallholders through their cooperatives and (ii) to the private enterprises through facilitation by establishing agro-enterprise parks to defray their initial capital costs, improve food safety and standards and help in consolidation.
- The Governments will channel their support and resources for the development and growth of the selected value chains through the government-owned County Development Investment Company (CDIC) which are committed to making equity investments and attract private enterprises.
- The terms of engagement between the smallholders and cooperatives on the one hand and between the cooperatives and the private enterprises will be mutually beneficial and will ensure sustained growth and production of the model.
- The market dynamics will continue to support the expansion in the demand of the three selected value chains and bring commensurate benefits from enhanced production and processing of these high value-added commodities.
- The commercial financial sector will be able to learn from the experience of HGDP and enhance its risk appetite for lending to the selected value chains and enable further growth and upscaling of the models for equity and debt financing.

China

Hunan Green Development Project

Project Design Report

Annex 3: Project cost and financing: Detailed costs tables

Mission Dates: 21/10/2023-04/11/2023

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Project No. 2000003847

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Annex 3-1 Summary Cost Tables:

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Table 1: Components Project Cost Summary

People's Republic of China
- Hunan Green Development Project
Components Project Cost Summary

	(CNY Ten Thousand)			(US\$ '000)			%	% Total
	Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
A. Smallholder Integration in Value Chains								
1. Developing Inclusive & Sustainable Production Management Plans	189	21	210	259	29	288	10	-
2. Implementation of Sustainable & Climate Smart Management Practices	78 042	1 830	79 872	106 907	2 506	109 413	2	47
3. Key Infrastructure Investments for cultivating the selected high value chain crops	18 273	-	18 273	25 031	-	25 031	-	11
4. Enhancing Carbon Sequestration and Monitoring & Accounting	399	-	399	547	-	547	-	-
Subtotal	96 903	1 851	98 754	132 744	2 535	135 279	2	58
B. Private Enterprise Led Business Development								
1. Inclusive Business Plan Development	1 188	132	1 320	1 627	181	1 808	10	1
2. Establishment of Productive Infrastructure	61 269	-	61 269	83 931	-	83 931	-	36
3. Product Development & Marketing	4 520	-	4 520	6 192	-	6 192	-	3
Subtotal	66 977	132	67 109	91 750	181	91 931	-	39
C. Management and capacity building								
1. Project management and capacity building	5 019	175	5 194	6 875	240	7 115	3	3
Subtotal	5 019	175	5 194	6 875	240	7 115	3	3
Total BASELINE COSTS	168 899	2 158	171 057	231 369	2 956	234 325	1	100
Physical Contingencies	639	-	639	876	-	876	-	-
Price Contingencies	-	-	-	-	-	-	-	-
Total PROJECT COSTS	169 538	2 158	171 696	232 244	2 956	235 200	1	100

Table 2: Components by Financiers

People's Republic of China
- Hunan Green Development Project
Components by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Smallholder Integration in Value Chains													
1. Developing Inclusive & Sustainable Production Management Plans	-	-	288	100.0	-	-	-	-	288	0.1	29	210	49
2. Implementation of Sustainable & Climate Smart Management Practices	13 406	12.3	42 870	39.2	16 412	15.0	36 725	33.6	109 413	46.5	2 506	101 708	5 199
3. Key Infrastructure Investments for cultivating the selected high value chain crops	4 390	17.5	855	3.4	-	-	19 786	79.0	25 031	10.6	-	24 737	294
4. Enhancing Carbon Sequestration and Monitoring & Accounting	150	27.5	-	-	-	-	397	72.5	547	0.2	-	537	11
Subtotal	17 946	13.3	44 013	32.5	16 412	12.1	56 909	42.1	135 279	57.5	2 535	127 192	5 552
B. Private Enterprise Led Business Development													
1. Inclusive Business Plan Development	0	-	1 808	100.0	-	-	-	-	1 808	0.8	181	1 320	307
2. Establishment of Productive Infrastructure	4 792	5.7	31 779	37.5	-	-	48 235	56.9	84 806	36.1	-	83 467	1 339
3. Product Development & Marketing	301	4.9	-	-	-	-	5 890	95.1	6 192	2.6	-	6 171	21
Subtotal	5 094	5.5	33 587	36.2	-	-	54 125	58.3	92 806	39.5	181	90 958	1 668
C. Management and capacity building													
1. Project management and capacity building	4 715	66.3	2 400	33.7	-	-	-	-	7 115	3.0	240	6 137	738
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

Table 3: Expenditure Accounts by Financiers

People's Republic of China
- Hunan Green Development Project
Expenditure Accounts by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs													
A. Operations and Maintenance	193	18.7	-	-	-	-	836	81.3	1 028	0.4	-	1 028	-
B. Goods, Services & Inputs (IFAD)	0	-	29 558	100.0	-	-	-	-	29 558	12.6	2 956	21 577	5 025
C. Counterpart funding (Government)	25 838	100.0	-	-	-	-	-	-	25 838	11.0	-	24 244	1 594
D. Works (IFAD)	-	-	18 388	100.0	-	-	-	-	18 388	7.8	-	18 388	-
E. Equipment and material (IFAD)	0	-	32 053	100.0	-	-	-	-	32 053	13.6	-	30 714	1 339
F. Beneficiary	-	-	-	-	16 412	100.0	-	-	16 412	7.0	-	16 412	-
G. Private sector	-	-	-	-	-	-	105 073	100.0	105 073	44.7	-	105 073	-
Total Investment Costs	26 031	11.4	80 000	35.0	16 412	7.2	105 909	46.4	228 351	97.1	2 956	217 437	7 958
II. Recurrent Costs													
A. Operating costs /a	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total Recurrent Costs	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

^a For postproduction enterprises under C2

Table 4: Project Components by year

People's Republic of China
 - Hunan Green Development Project
Project Components by Year -- Totals Including Contingencies
 (US\$ '000)

	Totals Including Contingencies						
	2024	2025	2026	2027	2028	2029	Total
A. Smallholder Integration in Value Chains							
1. Developing Inclusive & Sustainable Production Management Plans	288	-	-	-	-	-	288
2. Implementation of Sustainable & Climate Smart Management Practices	10 941	27 353	38 295	21 883	10 941	-	109 413
3. Key Infrastructure Investments for cultivating the selected high value chain crops	2 503	6 271	8 764	4 996	2 497	-	25 031
4. Enhancing Carbon Sequestration and Monitoring & Accounting	55	55	96	96	178	68	547
Subtotal	13 787	33 679	47 154	26 975	13 616	68	135 279
B. Private Enterprise Led Business Development							
1. Inclusive Business Plan Development	1 808	-	-	-	-	-	1 808
2. Establishment of Productive Infrastructure	19 320	17 074	22 837	15 704	7 133	2 740	84 806
3. Product Development & Marketing	342	370	1 370	1 370	1 370	1 370	6 192
Subtotal	21 470	17 444	24 206	17 074	8 503	4 110	92 806
C. Management and capacity building							
1. Project management and capacity building	1 827	948	948	948	948	1 496	7 115
Subtotal	1 827	948	948	948	948	1 496	7 115
Total PROJECT COSTS	37 085	52 071	72 309	44 997	23 066	5 674	235 200

Table 5: Financing of Investment/Recurrent Costs and Financial Charges by year

People's Republic of China
- Hunan Green Development Project

Financing of Investment/Recurrent Costs and Financial Charges by Year
(US\$ '000)

	Financing						Total
	2024	2025	2026	2027	2028	2029	
I. Investment Costs							
The Government	3 985	5 796	7 723	4 753	2 678	1 096	26 031
IFAD	15 583	17 799	22 632	14 243	7 972	1 770	80 000
Beneficiaries	1 641	4 103	5 744	3 282	1 641	-	16 412
Private Sector	15 876	23 002	34 840	21 348	9 405	1 438	105 909
Total Investment Costs	37 085	50 701	70 939	43 627	21 696	4 304	228 351
II. Recurrent Costs							
The Government	-	345	345	345	345	345	1 724
IFAD	-	-	-	-	-	-	-
Beneficiaries	-	-	-	-	-	-	-
Private Sector	-	1 025	1 025	1 025	1 025	1 025	5 125
Total Recurrent Costs	-	1 370	1 370	1 370	1 370	1 370	6 849
III. Financial Charges							
The Government	-	-	-	-	-	-	-
IFAD	-	-	-	-	-	-	-
Beneficiaries	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-
Total Financial Charges	-	-	-	-	-	-	-
Total Financing of Costs	37 085	52 071	72 309	44 997	23 066	5 674	235 200

Table 6: Disbursement Accounts by Financiers

People's Republic of China
- Hunan Green Development Project
Disbursement Accounts by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
Goods, Services & Inputs (IFAD)	0	-	29 558	100.0	-	-	-	-	29 558	12.6	2 956	21 577	5 025
Government Financing /a	25 838	100.0	-	-	-	-	-	-	25 838	11.0	-	24 244	1 594
Equipment and material (IFAD)	0	-	32 053	100.0	-	-	-	-	32 053	13.6	-	30 714	1 339
Works(IFAD)	-	-	18 388	100.0	-	-	-	-	18 388	7.8	-	18 388	-
Operating costs	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Operations and Maintenance	193	18.7	-	-	-	-	836	81.3	1 028	0.4	-	1 028	-
Beneficiary	-	-	-	-	16 412	100.0	-	-	16 412	7.0	-	16 412	-
Private sector	-	-	-	-	-	-	105 073	100.0	105 073	44.7	-	105 073	-
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

\a Subject to government fiduciary management . Cost breakdown by disbursement account is not needed.

Annex 3-2 Component Cost Tables:

Component 1: Smallholder Integration in Value Chain

	Investment Activities	Unit	Total Quantity	Unit price (CNY)	Total Budget	Budget of Investment by Year (CNY '000)						Source of Funds			
					(US\$ 1,000)	2 024	2 025	2 026	2 027	2 028	2 029	IFAD	Government	Enterprises	Household
						(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)
1.0	Component 1 Smallholder Integration in Value Chain				135 278	10 064	28 938	27 844	21 018	10 889	-	44 012	17 945	56 910	16 412
1.1	Developing Inclusive & Sustainable Production Management Plans	LS	7	300 000	288	210	-	-	-	-	-	288	-	-	-
1.1.1	Support and Inputs required for SECAP related Assessment and Capacity Building	LS	7	50 000		35						48			
1.1.2	Development of management plans	LS	7	220 000		154						211			
1.1.3	Support and Inputs required for gender/youth empowerment in the three value chains	LS	7	30 000		21						29			
1.2	Implementing Sustainable & Climate Smart Management Practices	mu	199 500		109 413	7 987	21 164	20 707	19 504	10 510	-	42 869	13 405	36 727	16 412
1.2.1	Improved Camelia Oleifera Management		72 000		27 313	1 933	5 275	5 115	4 825	2 790	-	11 942	3 854	7 289	4 228
1.2.1.1	New Plantation Development	mu	27 500	3 491	13 150	1 047	2 443	2 443	2 269	1 396	-	5 736	1 817	3 562	2 035
1.2.1.2	Existing Plantation Improvement	mu	44 500	2 323	14 163	886	2 832	2 672	2 556	1 394	-	6 206	2 037	3 728	2 192
1.2.2	Improved Bamboo Plantations		75 000		27 427	1 885	5 606	5 323	4 805	2 403	-	12 613	4 017	6 552	4 245
1.2.2.1	Bamboo Plantation Management for timber	mu	25 000	2 349	8 045	470	1 644	1 644	1 409	705	-	4 666	1 207	927	1 245
1.2.2.2	Bamboo Plantation Management for Timber & Shoots	mu	50 000	2 830	19 382	1 415	3 962	3 679	3 396	1 698	-	7 947	2 810	5 625	3 000
1.2.3	Improved Plantations of Medicinal Herbs & Ferns		52 500		51 292	3 923	9 628	9 628	9 272	4 992	-	16 990	5 120	21 243	7 939
1.2.3.1	Medicinal herbs & ferns management	mu	52 500	7 132	51 292	3 923	9 628	9 628	9 272	4 992	-	16 990	5 120	21 243	7 939
1.2.4	Training on tree crops management				3 381	246.80	653.96	639.84	602.68	324.76	-	1 325	414	1 642	
1.2.4.1	Training in climate smart production techniques	Person.time	27 391	450	3 381	247	654	640	603	325	-	1 325	414	1 642	

Component 1: Smallholder Integration in Value Chain (continued)

	Investment Activities	Unit	Total Quantity	Unit price (CNY)	Total Budget	Budget of Investment by Year (CNY '000)						Source of Funds			
					(US\$ 1,000)	2 024	2 025	2 026	2 027	2 028	2 029	IFAD	Government	Enterprises	Household
						(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)
1.3	Infrastructure for Plantations				25 030	1 827	7 578	7 011	1 490	366	-	855	4 389	19 786	-
1.3.1	Roads & Pathways for Production				14 396	1 092	4 833	4 326	258	-	-	-	2 801	11 595	-
1.3.1.1	Production Passageways	km	657	20 000	1 719	166	516	458	115	-	-	-	383	1 336	-
1.3.1.3	Ungraveled Bamboo plantation Path	Km	50	60 000	392	57	115	115	-	-	-	-	118	275	-
1.3.1.3	Graveled Path for Bamboo Plantation	Km	365	300 000	12 284	868	4 203	3 753	143	-	-	-	2 300	9 984	-
1.3.2	Irrigation Facilities for Plantations				7 425	462	1 719	1 820	1 070	350	-	855	1 191	5 379	-
1.3.2.1	Fertification systems	mu	12 700	3 000	4 984	258	1 089	1 089	860	344	-	855	997	3 133	-
1.3.2.2	Water Pounds	M3	3 300	600	259	23	69	63	29	6	-	-	24	236	-
1.3.2.3	Pipes	Km	330	20 000	994	67	267	296	96	-	-	-	128	866	-
1.3.2.4	Canals	Km	101	75 000	402	29	122	143	-	-	-	-	3	400	-
1.3.2.5	Pump Stations	Set	20	300 000	785	86	172	229	86	-	-	-	39	746	-
1.3.3	Field Operation Management Facility				2 182	200	718	575	100	-	-	-	205	1 976	-
1.3.3.1	Maintenance Room	KM2	4 650	2 500	1 592	100	488	475	100	-	-	-	205	1 387	-
1.3.3.2	Storage Room	KM2	2 150	2 000	589	100	230	100	-	-	-	-	589	-	-
1.3.6	Operations and Maintenance of Infrastructure				1 028	73	309	290	63	16	-	-	193	836	-
1.3.6.1	Operations and Maintenance					73	309	290	63	16	-	-	193	836	-
1.4	Carbon Sink Monitoring				547	40	196	126	24	13	-	-	150	397	-
1.4.1	Carbon sink monitoring	mu	147 000	5	97	7	19	19	17	9	-	-	49	49	-
1.4.2	Carbon Accounting	mu	147 000	2	39	3	8	7	7	4	-	-	19	19	-
1.4.3	Carbon Footprint	LS	2	1 000 000	411	31	169	100	-	-	-	-	82	329	-

Component 2: Enterprise-Led Inclusive Business Development

	Investment Activities	Unit	Total Quantity	Unit price (CNY)	Total Budget	Budget of Investment by Year (CNY '000)						Source of Funds			
					(US\$ 1,000)	2 024	2 025	2 026	2 027	2 028	2 029	IFAD	Government	Enterprises	Household
						(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)
2.0	Component 2 Enterprise-Led Inclusive Business Development	LS			92 807	15 674	29 124	22 951	-	-	-	33 587	3 370	55 849	-
2.1	Development of Inclusive Business Plans	LS	7		1 808	1 320	-	-	-	-	-	1 808	-	-	-
2.1.1	Support and Inputs required for SECAP related Assessment and Capacity Building	LS	7	342 857		240						329			
2.1.2	Development of Business Plans	LS	7			1 159						1 588			
2.1.3	Facilitation of skills development for women and youth	LS	21	10 000		7		7		7		29			
2.2	Establishment of Productive infrastructures	LS			84 807	14 104	26 924	20 881	-	-	-	31 779	3 068	49 959	-
2.2.1	Enhancing Primary Processing Capabilities				12 068	1 550	3 925	3 335	-	-	-	6 164	-	5 904	-
2.2.1.1	Primary processing enhancement of Camelia Oleifera				9 315	925	3 000	2 875	-	-	-	4 336	-	4 979	-
2.2.1.2	Primary processing enhancement medicinal plants				2 753	625	925	460	-	-	-	1 829	-	925	-
2.2.2	Enhancing processing capabilities of enterprises				17 933	3 190	6 735	3 166	-	-	-	6 329	521	11 083	-
2.2.2.1	Enhancing processing capacity for Camelia Oleifera				13 385	2 700	5 620	1 451	-	-	-	4 959	521	7 905	-
2.2.2.2	Enhanced processing capacity of Bamboo Shoots and Wood				2 219	490	615	515	-	-	-	1 370	-	849	-
2.2.2.3	Enhanced processing capacity for Chinese medicinal plants				2 329	-	500	1 200	-	-	-	-	-	2 329	-
2.2.3	Developing and improving infrastructure for the forestry industrial park				54 805	9 364	16 264	14 380	-	-	-	19 286	2 548	32 972	-
2.2.3.1	Camelia Oleifera Enterprise Park				945	470	-	220	-	-	-	137	219	589	-
2.2.3.2	Bamboo Enterprise Park				36 477	5 907	10 801	9 920	-	-	-	11 457	2 055	22 965	-
2.2.3.3	Chinese Medicine Enterprise Park				17 384	2 987	5 463	4 240	-	-	-	7 692	274	9 418	-

Component 2: Enterprise-Led Inclusive Business Development (continued)

	Investment Activities	Unit	Total Quantity	Unit price (CNY)	Total Budget	Budget of Investment by Year (CNY '000)						Source of Funds			
					(US\$ 1,000)	2 024	2 025	2 026	2 027	2 028	2 029	IFAD	Government	Enterprises	Household
						(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)	(US\$ 1,000)
2.3	Product Development and Marketing	LS			6 192	250	2 200	2 070	-	-	-	-	301	5 890	-
2.3.1	Integrated development of camellia oleifera and related service industries				4 247	-	1 500	1 600	-	-	-	-	301	3 945	-
	Camellia Oleifera Science and Exhibit Hall	KM2	3 000	3 000	1 233	-	900	-	-	-	-	-	-	1 233	-
	Camellia Oleifera sightseeing garden (inclu	KM2	10 000	1 200	1 644	-	600	600	-	-	-	-	164	1 479	-
	Scenic landscape building	LS	1	10 000 000	1 370	-	-	1 000	-	-	-	-	137	1 233	-
2.3.2	Bamboo Science Education and Exhibit Center				1 644	250	500	450	-	-	-	-	-	1 644	-
	Education and Exhibit Center	KM2	4 000	3 000	1 644	250	500	450	-	-	-	-	-	1 644	-
2.3.3	Herbal Medecine Education and Exhibit Center				301	-	200	20	-	-	-	-	-	301	-
	Exhibition Center	KM2	250	800	27	-	-	20	-	-	-	-	-	27	-
	E-commerce Platform	LS	1	2 000 000	274	-	200	-	-	-	-	-	-	274	-

Component 3: Project Management and Capacity Building

Investment Activities	Unit	Total Units	Unit Cost (CNY)	Budget of Investment by Year (US\$ '000)						Total cost (US\$ '000)	Expenditures by Financial Source		
				2024	2025	2026	2027	2028	2029		IFAD (US\$ '000)	GOC (US\$ '000)	
Component 3 - Project Management and Capacity Building													
I. Investment Costs													
3.1	A. Office Equipment	lumpsum											
	Office equipment		8 161 250	177	-	-	-	-	-	-	177	163	14
	Subtotal Office Equipment			177	-	-	-	-	-	-	177	163	14
3.2	B. Staff Capacity Building			-							-	-	-
3.2.1	B.1. National training										-	-	-
	Management workshop & training	lumpsum	5 134 000	18	18	18	18	18	-	-	92	58	34
	FM & procurement training	lumpsum	5 134 000	18	18	18	18	18	-	-	92	58	34
	Gender focus training /a	lumpsum	3 190 000	26	26	26	-	-	-	-	78	58	21
	SECAP related training		5 84 000	12	12	12	12	12	-	-	58	58	-
	Monitoring & evaluation	lumpsum	4 50 000	7	7	7	-	7	-	-	27	-	27
	Thematic and Technical Training by PPM	lumpsum	4 30 000	-	4	4	4	4	-	-	16	-	16
	Subtotal Training			81	85	85	52	59	-	-	363	230	133
3.2.2	B.2. workshops and meetings										115	115	-
	Workshops & meetings	no. of event	6 140 000	19	19	19	19	19	19	19	115	115	-
3.2.3	B.3. Thematic and technical training										123	123	-
	Training within Province	person.times	114 2 000	5	5	5	5	5	4	-	31	31	-
	Training outside the Province	person.times	84 8 000	-	23	23	23	23	-	-	92	92	-
	Subtotal Capacity building			106	133	133	100	107	23	-	601	468	133
	C. TA and short-term staff										-	-	-
	C.1 TA consultants	pers_month	114 15 000	41	41	41	41	41	29	-	234	234	-
	C.2. Short-term staff	pers_month	126 8 000	-	31	31	31	31	15	-	138	138	-
	C.3. SECAP Compliance facilitation /b	pers_month	36 20 000	19	19	19	19	22	-	-	99	99	-

Component 3: Project Management and Capacity Building(continued)

Investment Activities	Unit	Total Units	Unit Cost (CNY)	Budget of Investment by Year (US\$ '000)						Total cost (US\$ '000)	Expenditures by Financial		
				2024	2025	2026	2027	2028	2029		IFAD (US\$ '000)	GOC (US\$ '000)	
D. Knowledge management				-							-	-	-
County KM		6	503 333	69	69	69	69	69	69	69	414	414	-
Technical studies	lumpsum	5	50 000	7	7	7	7	7	7	-	34	34	-
Knowledge documents & sharing	lumpsum	5	50 000	7	7	7	7	7	7	-	34	34	-
Agroforestry Insurance pilot scheme	lumpsum	5	106 000	-	15	15	15	15	15	15	73	-	73
Subtotal Knowledge management				83	97	97	97	97	97	83	555	482	73
E. Monitoring and evaluation				-							-	-	-
county Monitoring & evaluation		6	475 000	65	65	65	65	65	65	65	390	390	-
Baseline survey /c	lumpsum	3	200 000	27	-	27	-	27	-	-	82	82	-
MIS set up	lumpsum	1	700 000	96	-	-	-	-	-	-	96	96	-
Policy activities	lumpsum	5	50 000	-	7	7	7	7	7	7	34	34	-
Subtotal Monitoring and evaluation				188	72	99	72	99	72	603	603	603	-
F. South-South Cooperation				-							-	-	-
F.1 Visits and Events	lumpsum	5	310 000	-	42	42	42	42	42	42	212	212	-
Subtotal SSC				-	42	42	42	42	42	42	212	212	-
				-							-	-	-
Total Investment Costs				614	435	463	403	439	265	2 619	2 400	219	
II. Recurrent Costs				-							-	-	-
staff salaries /d	lumpsum	6	3 130 000	429	429	429	429	429	429	429	2 573	-	2 573
VIG	year	6	1 200 000	164	164	164	164	164	164	164	986	-	986
Office operating costs	year	6	1 140 000	156	156	156	156	156	156	156	937	-	937
				-							-	-	-
Total Recurrent Costs				749	749	749	749	749	749	749	4 496	-	4 496
Total				1 363	1 185	1 212	1 152	1 189	1 014	7 115	2 400	4 715	

a/ Gender training will be made for all relevant implementation partners including BOF, CDIC, Cooperatives, Private Enterprises and VIGs

b/ Management and monitoring of SECAP plans

c/ Surveys would include empowerment indicators

d/ One safeguard specialist and one social inclusion (youth) Coordinator in each PMO included

China

Hunan Green Development Project

Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 4: Financial and Economic Analysis

I. Financial Analysis

Introduction

1. **The purpose of the financial analysis** of the project is to: (i) evaluate the financial viability of the improved production activities under the project interventions; (ii) analyse the impact of these improvements of adopting households, cash flow position and income levels; and (iii) provide a basis for the economic analysis of the project.
2. **Project Life:** The project will be implemented over a period of 6 years starting from 2024, while the duration of the analysis is 30 years.

Assumptions of Financial Analysis

3. The financial analysis of the Project is based on prices and costs collected by the Design mission in October-November 20123. The main assumptions that were used in the analyses are as follows.
 - a. Financial Analysis has only been conducted for Component 1, which has a mature design of various plantation models to rehabilitate or develop 199,000 mu (one hectare equals 15 mu) or 13,266 hectares of land under the three crops;
 - b. A thirty-year production cycle is assumed including a 6-year project investment period.
 - c. For all activities, a financial rural daily wage rate of CNY 220 was assumed. The same rate was used to value household family labour under the assumption that labour market is unrestricted and there is availability of labour opportunities in the project area.
 - d. Average size of farm per household covered by the project is 5 mu, and all area units are referred to in mu.
 - e. Benefits have been estimated on a conservative basis for both crop yields and output prices, factoring in the possible negative impacts of unfavourable weather and market conditions. Family consumption of the products produced under the project were accounted for at market price.
 - f. The benefits of on-farm infrastructure works (roads and irrigation) were not accounted for separately as it was assumed that these are included in increased farm production and productivity. Neither their costs were included in the financial analysis as they will be provided to farmer for free.
 - g. Under without situation, farmers tend to leave “ land to be developed or to be improved” untended without revenue.

Summary financial tables by Plantation models with key profitability indicators

4. There are well established management practices which can help to enhance the productivity of all of the three selected crops (bamboo, camellia oil tree and medicinal plants). Five technical models for growing these crops are planned to include: (i) improved management of bamboo timber forest; (ii) improved management of bamboo shoots and timber dual-use forest (some shoots harvested as food stuff); (iii) planting of Camellia oleifera; (iv) improved management of existing Camellia oleifera plantations; (v) cultivating of Chinese medicinal plants.

5. The input cost and output benefit of the five models are summarized below:

Table 1: Input Cost by Plantation models

	Input cost per mu per year (15mu=1 ha.)	Yuan
油茶新造 camelia tree (new planting)	苗木 (建设期) seedilngs (investment cost)	528.00
	肥料 (建设期) manure(investment cost)	654.00
	劳务 (建设期) labour (investment cost)	2309.00
	培训 training	111.00
	肥料 (经营期) Manure (operating cost)	480.00
	劳务 (经营期) labor (operating cost)	858.00
	收获 (盛产期) harvesting cost	840.00
油茶中幼林抚育 camelia tree (improvement)	苗木 (建设期) seedilngs (investment cost)	44.00
	肥料 (建设期) manure(investment cost)	329.50
	劳务 (建设期) labor(investment cost)	1949.50
	培训 training	74.50
	肥料 (经营期) Manure (operating cost)	480.00
	劳务 (经营期) labor (operating cost)	858.00
	收获 (稳产期) harvesting cost	840.00
毛竹材用林经营 bamboo (timber)	苗木 (建设期) seedilngs (investment cost)	88.00
	肥料 (建设期) manure(investment cost)	114.00
	劳务 (建设期) labour (investment cost)	2147.00
	培训 training	75.00
	肥料 (经营期) Manure (operating cost)	90.00
	劳务 (经营期) labor (operating cost)	374.00
	收获材 (经营期) harvesting cost	357.00
毛竹笋材两用林经营 Bamboo dual use (timber & shoots)	苗木 (建设期) seedilngs (investment cost)	88.00
	肥料 (建设期) manure(investment cost)	126.00
	劳务 (建设期) labour (investment cost)	2616.00
	培训 training	90.00
	肥料 (经营期) Manure (operating cost)	102.00
	劳务 (经营期) labor (operating cost)	836.00
	收获材 (经营期) harvesting cost (timber) 收获笋 (经营期) harvesting cost (bamboo shoots)	303.45 240.00
黄精等林下栽培 Medicinal herbs (polygonatum sibiricum)	苗木 (建设期) seedilngs (investment cost)	3300.00
	肥料 (建设期) manure(investment cost)	1177.50
	劳务 (建设期) labour (investment cost)	2654.50
	培训 training	227.50
	苗木 (经营期) seedings(operating cost)	3300.00
	肥料 (经营期) Manure (operating cost)	1177.50
	劳务 (经营期) labor (operating cost)	1320.00
收获 (采收期) harvesting cost	1200.00	

Table 2: Output Benefit by Plantation models

Output benefit per mu per year (15mu=1 ha.)			
	Yuan	Remarks	
油茶新造鲜果 new planting camelia fruit (fresh)	3640.0	盛产期 at full development	
油茶中幼龄抚育鲜果 camelia fruit (improvement)	2600.0	稳产后 (full improvement)	
毛竹材用林竹材 bamboo (timber only)	892.5	每年 annually	
毛竹笋材两用林竹笋 (bamboo shoots under dual use)	800.0	每年annually	
毛竹笋材两用林竹材 (bamboo timber under dual use)	758.6	每年annually	
黄精根茎 medicinal herb (tube and root)	23000.0	(harvesting @Y4, replanting @ Y5)	

6. These models have been subject to a financial analysis and formed the building blocks for the economic analysis. Each model provides yields and inputs per unit of area, financial budgets according to “without” and “with project” as well as increments in terms of value, quantities, and production. Results of the financial analysis are summarised in the table below and available in details in a separate excel file (Appendix 1 to Annex 4, available as part of the project file).

Table 3: Summary financial table by Plantation models with key profitability indicators

Plantation Model (Per mu)	FIRR	NPV (Yuan, discount rate@8%)	Household annual income (Yuan) at full development with family labour fully costed. (Average landholding of 5 mu)
Improved management of bamboo timber forest	8.5%	109	1,429
Improved management of bamboo shoot and timber dual-use forest	11.9%	1,155	2,100
New planting of Camellia oleifera	8.7%	728	7,310
Improved management of existing Camellia oleifera plantations	12.9%	1,326	2,146
Cultivating of Chinese medicinal plants	19.9%	9,084	6,948

Financial analysis of activities under component 2

7. By design, the post- production activities will be financed by the project through the formulation of the business plans, which will conduct financial and economic analysis for the specific activities. As such, without detailed business plan, the component-wide ex ante financial and economic analysis is neither practical nor relevant. Nevertheless, for financial and economic analysis in the business plan, a well-tested model (template), which has been used in both World Bank and IFAD financed project in China for post-production activities, is attached for reference (see Appendix 2 to Annex 4). The model would (i) demonstrate the methodologies and data requirement and for the analysis; and (ii) serve as a tool to selecting the qualified entities and investment activities. And it has been rendered into Chinese for the easy access to the local stakeholders. It is desirable that the financial and economic analysis for this component be conducted at MTR, at which the program will accumulate sufficient evidence of business plan implementation and have reasonable projections for the analysis.

Estimation of Beneficiaries

8. Based on the plans submitted by the seven counties, it is expected that HGDP will be able to reach around 43,500 smallholder households directly and 128,000 people given the average household size of 2.95 people in the province. The numbers exclude beneficiaries who might receive more than one benefit from the project to avoid double counting. The Project is expected to rehabilitate or develop 199,000 mu or 13,266 hectares of land under the three crops. It is expected that women beneficiaries of the project will comprise 60% of the total beneficiaries and youth will constitute around 30%. Table 7 below gives an estimated number of beneficiaries from the different types of benefit generated by the project. The assumptions made in the calculation of the beneficiaries are detailed in Annex 11.

Table 4: Estimated Beneficiaries.

Component 1	people	Men	Women	Youth
Training in climate adaptive production techniques	35 271	14 109	21 163	10 581
Provision of improved inputs for production (seeds, saplings, fertiliser, etc)	18 850	7 540	11 310	5 655
Access to improved infrastructure (irrigation, passage ways)	19 511	7 805	11 707	3 902
Increased income from renting land	7 456	3 728	3 728	
Increased income from divided income through share in production	7 456	3 728	3 728	
Increased income from sale of produce	4 483	2 124	2 359	2 241
Increased income from on-farm wage labour	15 760	6 304	9 456	6 304
Increased awareness of carbon sequestration, monitoring and accounting methods	100	30	70	50
Component 2				
Increased employment in agro-enterprises	2400	960	1440	1440
Increased sale of produce of smallholders due to enhanced processing capacity	5 790	2 316	3474	2316
Increased sale of produces of other smallholders non-supported in component 1 due to enhanced processing capacity	8 500	3 400	5 100	2 550
Total avoiding double counting	43 771	17 509	26 263	13 131
Rounded to	43 500	17 000	26 000	13 000

II. ECONOMIC ANALYSIS

Purpose and assumptions

9. **The Purpose of Economic Analysis** is to evaluate the expected contribution of the project interventions to the economic development using cost-benefit analysis (CBA). The economic analysis will determine whether the benefits sufficiently justify the interventions the project is planning to invest on.

10. **Scope of the Analysis:** As in the case of the financial analysis, the economic analysis only covers Component 1 (refer to Para 6 of financial analysis section above).

11. **Production Benefits:** The farm production benefits are derived from the production models as calculated in the financial analysis, aggregating all the models by planned annual development areas.

12. **The project economic costs:** The incremental cost flows include all incremental on-farm investment and incremental production costs as estimated in the crop model analysis. The costs were converted to economic cost using the standard conversion factor of 1 for production models.

13. **Environment benefits (Carbon sequestration):** It is confirmed that tree crops generate sizable carbon sequestration. For the purpose of this analysis and based on the studies by the mission carbon specialist, one mu of the bamboo plantation and one mu of camelia oil tree plantation will reduce annually carbon emission by 0.6 ton and 0.2 ton respectively during their economic life of 30 years; and the carbon shadow price is estimated at US\$ 50 in line with the recent World Bank project analysis. With the total areas of bamboo plantation of 75,000 mu and camelia oil tree plantation of 72,000 mu (see table 5 below), the project would generate carbon reduction benefit of US\$ 3.33 million annually.

14. **More detailed assumption for the economic analysis.** The following factors and assumptions were used in the economic analysis.
- A thirty-year production cycle is assumed including a 6-year project investment period;
 - The analysis was carried out for Component 2 only, given the design and implementation of activities Component 2 will be covered by the business plans (see Para 6);
 - inputs and outputs are freely traded within the area in response to market signals. Therefore, the conversion factor for these goods is set at 1 to reflect the fact that financial prices are equivalent to economic prices.
 - The costs on-farm infrastructure works (roads and irrigation), and government training and extension service costs (contained in the government support costs for tree crops production) are included in the analysis as they directly contribute to increased farm production and productivity;
 - The infrastructure costs are net of duties and taxes;
 - Family labour is valued at an opportunity cost equivalent to market wage rate of CYN 220/day;
 - Opportunity cost of land is represented by the value of next best alternative land use. Under without situation, farmers tend to leave “ land to be developed or to be improved” untended without revenue, the opportunity cost of land therefore is treated as zero; and
 - Opportunity cost of capital (OCC) was assumed at 8% and the analysis is carried out in domestic currency values.

Results of the Economic Analysis

15. The aggregated economic cash flow has been based on physical achievement of the tree crops development as tabled below:

Table 5. Tree Crops Areas by Year

建设进度表 tree crop areas by year (mu)

	Total	2025年	2026年	2027年	2028年	2029年
油茶新造 camelia (new)	27500	3000	7000	7000	6500	4000
油茶中幼林抚育 camelia (improvement)	44500	4500	11500	11500	11000	6000
毛竹材用林经营 bamboo (timber only)	25000	3000	6000	6000	7000	3000
毛竹笋材两用林经营 bamboo (dual use)	50000	6500	12500	12500	12000	6500
黄精林下栽培 Medicinal herbs	52500	6500	13000	13000	13000	7000

16. The economic viability of the has been measured using the economic internal rate of Return (EIRR), and Economic Net Present value (ENPV) at the OCC of 8%
17. The economic analysis yields an EIRR of 15% with economic net present value is 718.66 million Yuan (OCC at 8%), indicating the project is economically viable.
18. **Sensitivity analysis:** A sensitivity analysis was carried out to test the robustness of the two key factors, namely output price decline and cost increase. In particular, the switching values (SV) have been captured for those critical variables as shown below. The results are summarised below (with detailed calculations in Appendix 1 to Annex 4).

Table 6: Results of the sensitivity analysis of the economic analysis

	EIRR
Baseline	15%
Output prices reduced by 13% (SV)	8%
Investment cost increased by 14%(SV)	8%

19. The economic viability of the project is relatively robust, almost equally sensitive to benefit reduction (output prices decline) and investment cost increases, considering the conservative estimation of the project benefit and the well-established plantation development cost for the baseline scenario.

Appendix 1: Prices and models

Table 1-a: Input cost per mu per year (15mu=1 ha.)

		CNY	CNY
INPUTS			
Crops			
油茶新造 YC01	苗木 (建设期) seedlings (investment cost)	528.00	528.00
	肥料 (建设期) manure(investment cost)	654.00	654.00
	劳务 (建设期) labour (investment cost)	2309.00	2309.00
	培训 training	111.00	111.00
camelia tree (new planting)	肥料 (经营期) Manure (operating cost)	480.00	480.00
	劳务 (经营期) labor (operating cost)	858.00	858.00
	收获 (盛产期) harvesting cost	840.00	840.00
油茶中幼林抚育 YC02	苗木 (建设期) seedlings (investment cost)	44.00	44.00
	肥料 (建设期) manure(investment cost)	329.50	329.50
	劳务 (建设期) labor(investment cost)	1949.50	1949.50
camelia tree (improvement)	培训 training	74.50	74.50
	肥料 (经营期) Manure (operating cost)	480.00	480.00
	劳务 (经营期) labor (operating cost)	858.00	858.00
	收获 (稳产期) harvesting cost	840.00	840.00
毛竹材用林经营 MZ01	苗木 (建设期) seedlings (investment cost)	88.00	88.00
	肥料 (建设期) manure(investment cost)	114.00	114.00
	劳务 (建设期) labour (investment cost)	2147.00	2147.00
	培训 training	75.00	75.00
bamboo (timber)	肥料 (经营期) Manure (operating cost)	90.00	90.00
	劳务 (经营期) labor (operating cost)	374.00	374.00
	收获材 (经营期) harvesting cost	357.00	357.00
	收获材 (经营期) harvesting cost	357.00	357.00
毛竹笋材两用林经营 MZ02	苗木 (建设期) seedlings (investment cost)	88.00	88.00
	肥料 (建设期) manure(investment cost)	126.00	126.00
	劳务 (建设期) labour (investment cost)	2616.00	2616.00
	培训 training	90.00	90.00
Bamboo (timber & shoots)	肥料 (经营期) Manure (operating cost)	102.00	102.00
	劳务 (经营期) labor (operating cost)	836.00	836.00
	收获材 (经营期) harvesting cost (timber)	303.45	303.45
	收获笋 (经营期) harvesting cost (bamboo shoots)	240.00	240.00
	收获笋 (经营期) harvesting cost (bamboo shoots)	240.00	240.00
黄精等林下栽培 TS01	苗木 (建设期) seedlings (investment cost)	3300.00	3300.00
	肥料 (建设期) manure(investment cost)	1177.50	1177.50
	劳务 (建设期) labour (investment cost)	2654.50	2654.50
	培训 training	227.50	227.50
Medicinal herbs (polygonatum sibiricum)	苗木 (经营期) seedings(operating cost)	3300.00	3300.00
	肥料 (经营期) Manure (operating cost)	1177.50	1177.50
	劳务 (经营期) labor (operating cost)	1320.00	1320.00
	收获 (采收期) harvesting cost	1200.00	1200.00

Table 1-b: Output benefit per mu per year (15mu=1 ha.)

		CNY	
OUTPUTS			Remarks
Crops			
油茶新造鲜果 new planting camelia fruit (fresh)	3640.0	盛产期 at full development	
油茶中幼龄抚育鲜果 camelia fruit (improvement)	2600.0	稳产后 (full improvement)	
毛竹材用林竹材 bamboo (timber)	892.5	每年 annually	
毛竹笋材两用林竹笋 (bamboo shoots)	800.0	每年 annually	
毛竹笋材两用林竹材 (bamboo timber, dual use)	758.6	每年 annually	
黄精根茎 medicinal herb (tube and root)	23000.0	第4年采、第5年种 (harvesting @Y4, replanting @ Y5)	

Table 4: Bamboo for timber only

		毛竹材用林经营(1 mu) bamboo (timber only, one mu)																																	
		Without project	With project																																
	Unit	Yr 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Financial budget																																			
Inputs																																			
毛竹材用林经营	苗木 (建设期) seedlings (investment cost)	CNY	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MZ01	肥料 (建设期) manure(investment cost)	CNY		114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bamboo (timber only)	劳务 (建设期) labour (investment cost)	CNY	0	2147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	培训 training	CNY	0	75.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	肥料 (经营期) Manure (operating cost)	CNY	0	0	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
	劳务 (经营期) labor (operating cost)	CNY	0	0	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374	374
	收获材 (经营期) harvesting cost	CNY	0	303.5	321.3	339.2	357	374.9	393	411	428	446	464	482	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	
			Output																																
现金流入 cash inflow			758.6	803.3	847.9	892.5	937.1	982	1026	1071	1116	1160	1205	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	
净现金流量 Net cash flow	CNY	0	-1969	18	45	72	98	125	152	179	205	232	259	286	286	286	286	286	286	286	286	286	286	286	286	286	286	286	286	286	286	286	286		
FIRR		8.47%																																	
NPV		¥ 109.29																																	

Table 5: Bamboo for dual use (timber and shoots)

		毛竹笋材两用林(1 mu) bamboo for dual use (timber and shoots)																																	
		Without project	With project																																
	Unit	Yr 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Financial budget																																			
Inputs																																			
毛竹笋材两用林经营	苗木 (建设期) seedlings (investment cost)	CNY	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MZ02	肥料 (建设期) manure(investment cost)	CNY		126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bamboo (dual use)	劳务 (建设期) labour (investment cost)	CNY	0	2616	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	培训 training	CNY	0	90.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	肥料 (经营期) Manure (operating cost)	CNY	0	0	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102	102
	劳务 (经营期) labor (operating cost)	CNY	0	0	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836
	收获材 (经营期) harvesting cost (timber)	CNY	0	257.9	273.1	288.3	303.5	318.6	334	349	364	379	394	410	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425	425
	收获笋 (经营期) harvesting cost (bamboo shoots)	CNY		204	216	228	240	252	264	276	288	300	312	324	336	336	336	336	336	336	336	336	336	336	336	336	336	336	336	336	336	336	336	336	336
			Output																																
现金流入 (cash inflow)			680	720	760	800	840	880	920	960	1000	1040	1080	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	1120	
			644.8	682.8	720.7	758.6	796.6	834	872	910	948	986	1024	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	1062	
净现金流量 (net cash flow)	CNY	0	-2057	-24	26	77	128	179	229	280	331	382	432	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	
FIRR		11.91%																																	
NPV		¥ 1 155.32																																	

Table 6: Medicinal herbs (1 mu)

		黄精等林下经济(1 mu) Medicinal herbs																														
		Without project	With project																													
Unit		Yr 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
		Financial budget																														
		Inputs																														
黄精等林下栽培	苗木 (建设期) seedlings (investment cos	CNY	0	3300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TS01	肥料 (建设期) manure(investment cost)	CNY	0	1177.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Medicinal herbs	劳务 (建设期) labour (investment cost)	CNY	0	2654.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	培训 training	CNY	0	227.50																												
	苗木 (经营期) seedlings(operating cost)	CNY	0	0			3300			3300			3300				3300				3300				3300				3300			
	肥料 (经营期) Manure (operating cost)	CNY	0	0	1178	1178	1178	1177.5	1178	1178	1177.5	1177.5	1178	1178	1177.5	1177.5	1178	1178	1177.5	1177.5	1178	1178	1177.5	1177.5	1178	1178	1177.5	1177.5	1178	1178	1177.5	1177.5
	劳务 (经营期) labor (operating cost)	CNY	0	0	1320	1320	1320	2654.5	1320	1320	1320	2654.5	1320	1320	1320	2654.5	1320	1320	1320	2654.5	1320	1320	2654.5	1320	1320	2654.5	1320	1320	2654.5	1320	1320	
	收获 (采收期) harvesting cost	CNY	0	0			227.50			227.50			227.50			227.50				227.50				227.50				227.50			227.50	
	收获 (采收期) harvesting cost	CNY	0	0			1200			1200			1200			1200				1200				1200				1200			1200	
现金流入cash inflow						23000			23000			23000				23000				23000				23000				23000				
净现金流net cash flow		CNY	0	-7360	-2498	-2498	19303	-7360	-2498	-2498	19303	-7360	-2498	-2498	19303	-7360	-2498	-2498	19303	-7360	-2498	-2498	19303	-7360	-2498	-2498	19303	-7360	-2498	-2498	19303	
FIRR				19.85%																												
NPV				¥ 9 804.92																												

Table 7: Tree crop areas by year (mu)

建设进度表 tree crop areas by year (mu)

建设内容	模型号	面积 (亩)	2025年	2026年	2027年	2028年	2029年	Total
油茶新造 camelia (new)	YC01	27500	3000	7000	7000	6500	4000	
油茶中幼林抚育 camelia (improvement)	YC02	44500	4500	11500	11500	11000	6000	72000.0
毛竹材用林经营 bamboo (timber only)	MZ01	25000	3000	6000	6000	7000	3000	75000.0
毛竹笋材两用林经营 bamboo (dual use)	MZ02	50000	6500	12500	12500	12000	6500	
黄精林下栽培 Medicinal herbs	TS01	52500	6500	13000	13000	13000	7000	

Appendix 2: Post-Production Model

Activity Model of Component 2 Cashflows 净现金流量表(样表)			
Post Production Activity (公司名称):			
Variable Operating Costs at full Capacity		Sales Revenues at full Production Capacity	
表1 可变运营成本表 (达产率100%时)		表2 销售收入表(达产率100%时)	
Raw Material Costs (原材料)		Sales (销售收入)	
Input (1) (Paddy)		Product (1)	
Price(Y/t) (价格, 元/吨)		Price(Y/t) (价格, 元/吨)	
Quantity(t) (数量, 吨)		Quantity(t) (数量, 吨)	
Sub-total小计	0	Sub-total小计	0
Input (2)		Product (2)	
Price(Y/t) (价格, 元/吨)		Price(Y/t) (价格, 元/吨)	
Quantity(t) (数量, 吨)		Quantity(t) (数量, 吨)	
Sub-total小计	0	Sub-total小计	0
Input (3)		Product (3)	
Price(Y/t) (价格, 元/吨)		Price(Y/t) (价格, 元/吨)	
Quantity(t) (数量, 吨)		Quantity(t) (数量, 吨)	0
Sub-total小计	0	Sub-total小计	0
Input (4)		Product (4)	
Price(Y/t) (价格, 元/吨)		Price(Y/t) (价格, 元/吨)	
Quantity(t) (数量, 吨)		Quantity(t) (数量, 吨)	0
Sub-total小计	0	Sub-total小计	0
Input (5)		Product (5) (产品5)	
Price(Y/t) (价格, 元/吨)		Price(Y/t) (价格, 元/吨)	
Quantity(t) (数量, 吨)		Quantity(t) (数量, 吨)	0
Sub-total小计	0	Sub-total小计	0
Input (6) (Pea)		Product (6) (产品6)	
Price(Y/t) (价格, 元/吨)		Price(Y/t) (价格, 元/吨)	
Quantity(t) (数量, 吨)		Quantity(t) (数量, 吨)	0
Sub-total小计	0	Sub-total小计	0
Total Raw Materials (Yuan) 原材料费用合计 (元)	0	Other incomes if any	
Labour Costs 劳动力		其它加工收入	
Person/day			
Quantity		Total (Yuan) 合计	0
Sub-total小计	0		
Utilities Costs *公共事业费			
Price(Y/t) (价格, 元/吨)			
Quantity(t) (数量, 吨)			
Sub-total小计	0		
Packaging materials Costs 包装材料费	0		
Grand total (variable costs) 可变成本合计	0		
* Including electricity, water and fuel. 包括电力、水和燃料。			

Table 3. Cashflows in 2003 Constant Prices (RMB '000)																				
表3-3 净现金流量表（以2003年不变价格计算，人民币：千元）																				
Factory（公司名称）：Pangxiang市种子公司																				
Year（年份）																				
Items项目	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Utilization of Capacity（达产率）		20%	30%	50%	100%	100%	100%	100%	100%	100%	90%	80%	50%	40%	40%	40%	40%	40%	40%	0%
Cash Inflows（现金流入）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sales Revenue(1)（销售收入）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Values(2)（残值）																				0
Cash Outflows（现金流出）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Investment Costs(3)（投资成本）***																				
Incremental Working Capital(4)（流动资金递增）																				
Variable Operating Cost(5)（可变运营成本）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fixed Operating Costs(6)（固定运营成本）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marketing and Admin. Expenses(7)（营销及管理费用）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cashflow Before Tax(in 2024 constant price)（税前现金流量）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VAT(8)（增值税）		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Cashflow after taxes(in current prices)税后净现金流量(以现值计算)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Without Project net income(9)无项目净收入																				
Net Incremental Cashflow after taxes(in 2024 constant prices) (税后净现金流量，以2024年不变价格计算)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FIRR(财务报酬率)		#NUM!																		
NPV(financial)财务净现值		0																		
FERR (before tax)经济报酬率		#NUM!																		
NPV(economic, before tax)经济净现值		0																		

注：

(1) Derived from sales at the full production capacity multiplied by the capacity utilization rate.
100%达产率的销售收入乘以实际达产率。

(2) Calculated as 5% of fixed assets value. 残值为固定资产的5%。

(3) Not including working capital. 不包括流动资金。

(4) Projected the factory management, depending on the capacity utilization and management of current assets and liabilities.
由工厂管理层依据达产率及流动资产和负债的管理情况预测得出。

(5) Not including depreciation, interest payment and marketing/admin. expenses. See Table 3-1.
不包括折旧、利息及营销和管理费用（见表3-1）。

(6) Building and equipment maintenance at 3% of the investment costs. 年建筑及设备维修费用为其投资成本的3%。

(7) Estimated at 5% of sales. 约为销售收入的5%。

(8) VAT @17%

(10) For expansions and renovation only. 对扩建和改造项目而言。

*** Processing line only.

China

Hunan Green Development Project

Project Design Report

Annex 5: Social Environment and Climate Assessment (SECAP) Review Note

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

The SECAP Review note should build on the preliminary note mentioned above, draw on the results of the screening exercise and be informed by the issues raised during the design mission, the stakeholders interviews, publicly available tools and dataset, and environmental, social or climate-related studies that inform on the characteristics of the project location. The SECAP review note includes the revised ESMP and should be attached to the Project Design Report, integrated in Draft Project Implementation Manual (PIM) and COSTAB and shall be submitted to Design Review Meeting (DRM) or IRC (for NSOs).

1. Introduction

1. The purpose of this document is to provide elements of context and guidance for the Hunan Green Development Project (HGDP) Concept Note to better integrate social, environmental and climate dimensions. The SECAP Review Note describes the main socio-economic, climate and environmental trends in the Project's target areas and analyses the potential risks related to its implementation in Hunan, China. In terms of methodology, data was collected through an extensive literature review, use of online tools, and consultations with stakeholders. The Social and Environmental Risk Category for the Hunan project is rated as Moderate and the Climate Risk classification for this project is low, following the results of the Safeguards Screening Checklist. The project will invest in activities carried out by smallholders and private enterprises. The social, environmental and climate impacts dimensions on the selected three high value commodities has been assessed during the project concept mission.
2. At this stage, the following 9 counties are currently being targeted by the project: Taojiang, Hengshan, Shuangpai, Yanling, Anren, Pingjiang, Heshan, Yuanling and Xupu.
3. This SECAP Review Note is prepared based on IFAD's SECAP 2021.
4. The Project focuses on two interlinked technical components:
 - Component 1: Smallholder Integration in Value Chains
 - Component 2: Private Enterprise Led Business Development

2. Situational analysis and potential project impacts

5. The following sub sections cover both socio-economic assessment and environmental & climate assessment

2.1 Socio-economic assessment

a. Overall poverty situation

6. Hunan is located in the transition zone from Yunnan-Guizhou Plateau to the hills of south Yangtzi River, and from Nanling Mountains to Jiangnan Plain. With 2.21% of the national territory and about 3% of the national cultivated land, about 5% of Chinese citizen lives in Hunan province with a total population of 66.04 million in 2022, of which, 39.7% living in rural Hunan. Agriculture is a major sector in Hunan representing 16.8% of total GDP in Hunan in 2022. In rural Hunan, per capita net income of farmers was about CNY 19,5461, about 97.1% of the national average for rural people (CNY 20,1332) in 2022; and 1.421 million or 5.4% of rural people whose per capita net income lower than CNY 4,300 received the minimum living guarantee subsidy³. There are 13 municipalities/prefectures and 122 counties/districts in Hunan province, of which, 20 were former nationally-designated poverty counties with 7.67 million poor population or 13.5% of poverty incidence in 2012. Through the implementation of national targeted poverty alleviation programme from 2013 to 2020, the poor population got rid of the absolute poverty, but still are vulnerable to sustain and expand the income opportunities, some of them even more vulnerable being closely monitored by national anti-poverty system as the population with potential risk of slipping back to poverty.
7. Following the national rural revitalization strategy, the *Hunan Provincial Regulation on Promoting Rural Revitalization* was formulated by Hunan Provincial Congress on November 23, 2022. Besides the design of all aspects of rural revitalization of rural Hunan, the regulation focused specifically on consolidating achievements in poverty alleviation, including long-term supporting mechanism to low income population and less developed areas, and dynamic monitoring and support mechanism to populations with potential risk of slipping back to poverty.

b. Gender

8. According to the Hunan Statistic Bureau, women comprised 48.8% of the total population in Hunan in 2022, while it was 48.9% at the national level. In the process of urbanization, the structure of agricultural labor force in central and western provinces in China has changed, and the opportunities and wages for men to go out of their hometown to work are significantly higher than those of women, while women are better at housework and taking care of the elderly and children by gender division of labor, resulting in more women remaining in the agricultural field.
9. *The Fourth Survey on the Social Status of Chinese Women (2020)* showed that rural women played more important role in economic and social development than 10 years ago. Among rural women, 28.9% are employed by non-agriculture sector, 37.8% had experience of migrant work, and 52.6% of returning women engaged in non-agricultural labor. The average years of schooling of rural women in western China reached 7.44 years, while that of whom in eastern China was 0.61 year more. 87.5% of rural women participated the election of villagers' committee, and about 1/3 of rural women with age between 18 - 34 would like to run for villagers' committee membership in the future.
10. In 2021, The State Council issued the *Programme for Chinese Women's Development (2021-2030)*, and Hunan Provincial Working Committee of Women and Children issued *Hunan Women's Development Programme (2021-2030)* seeking to advance equality between women and men in eight priority areas, namely health, education, economy, participation in decision-making and management, family building, social security, environment and law. It also pointed out the challenges of women's development including, (i) gaps in women's development between urban and rural areas, regions and groups, and more efforts should be made to improve rural women's livelihood, especially in less developed areas; (ii) women still face practical difficulties in ensuring their equal rights in employment, personal property, marriage and family; (iii) the level of women's participation in the management of economic, cultural and social affairs needs to be comprehensively improved; (iv) various forms of discrimination against women exist to varying degrees, the concept of gender equality needs to be further popularized, and the social environment for women's development needs to be further optimized. However, the statistic monitoring of the national Programme showed that the first year of the implementation was successful with improvement in women's health level, women's level of education, women's economic and social status and the scope of social security continued to expand, and the legal protection system was further improved

c. Youth

11. Since 1980s when China economic reform started, rural labor has been being migrating to urban center on a large scale majorly due to the income gap between rural and urban. Data from State Statistic Bureau showed that 187.05 million rural labor migrated to urban in the second quarter of 2023 across the country, with the monthly average income of CNY 4,646 per capita⁹. Rural youth move to cities in pursuit of good jobs and higher incomes to gain higher socio-economic status. The problem of "marginalization" faced by rural youth working in cities has existed for a long time, it is difficult for most of them to integrate into the city, coupled with limited employment options, mostly engaged in time-consuming and labor-intensive work, which makes young migrants falling into unsustainable employment status. Specifically, rural migrant women in China, who in 2020 were approximately 30% of the total number of rural migrants, are typically in more disadvantaged positions compared with male migrants. Apart from difficulties in obtaining welfare benefits, rural migrant women are influenced by patriarchal culture profoundly embedded in Confucian ideology, thereby encountering gender discrimination in many spheres, including the job market, workplaces, living spaces, and within their families. As a result, they are often trapped in a more vulnerable situation. In the context of rural revitalization, local government departments have introduced policies to actively attract young people to rural areas to be employed or start businesses, and the returning youth expect to realize the stable life through local entrepreneurship or employment. Developing the entrepreneurship and employment opportunities attractive to returning youth in the development of local rural industries is a critical issue^{10,11,12}.
12. The Medium and Long Term Youth Development Plan (2016-2025) issued by the CPC Central Committee and the State Council aimed to promote better growth and faster development of youth. To this aim, the government puts emphasis on employment and entrepreneurship of youth. A series of development measures for employment and entrepreneurship of youth are proposed, including (i) improvement of the policy system for promoting youth employment and entrepreneurship, (ii) strengthening youth employment services, (iii) strengthening youth employment services and promoting youth to engage in entrepreneurship practice, (iv) strengthening the protection of youth employment rights and interests. Youth Employment Internship Program is implemented to promote youth employment training and management, and provide subsidies and support for youth participating in employment internships.

d. Indigenous peoples

13. There are 55 ethnic minorities in China, the rights protection of Chinese ethnic minorities has its distinctive characteristics. Comprehensive safeguards, focusing on subsistence rights and development rights, the ethnic regional autonomy system as institutional foundation, the implementation pattern based on the combination of equal protection and special treatment are four main features of Chinese ethnic minorities' rights protection. Therefore, they are integrated in the mainstream of the society, and the government applies preferential policies and support to ethnic minorities in social, cultural and economic development as compared to the majority of Han^[1]. According to the seventh census in 2020, the population of 55 ethnic minorities in Hunan Province was 6.69 million, accounting for 10.06% of the total population in the province, and the distribution of ethnic minorities is a pattern of "large co-habitation, small agglomeration", largely concentrated in Western and southern Hunan. In the province, the main ethnic minorities include the Tujia, Miao, Dong, Yao, Bai, Hui and Zhuang, who have established ethnic autonomous areas or ethnic townships.

e. Marginalised groups

14. According to the Hunan Disabled Persons Federation, there are 4.08 million people with disabilities in Hunan Province in 2019, accounting for 6.44 % of the total population. By the end of 2022, 1.60 million disabled residents in the province had participated in urban and rural social pension insurance; 0.642 million people were covered by the policy of subsidizing individual contributions to the insurance. 0.675 million disabled people received pensions. Hunan Province actively promotes the employment of people with disabilities and protects their rights and interests. The number of employed disabled people was 0.429 million in 2022, of which, 207,395 people, or 48.8% were engaged in agriculture.

f. Nutrition

15. In 2017, the State Council issued "National Nutrition Programme (2017-2030)", which points out that the major factors affecting national health are, the coexistence of insufficient and excessive nutrition, the frequent occurrence of nutrition-related diseases, and the lack of popularization of nutritious and healthy lifestyles. The objectives of the programme are, (i) the rate of anemia in children under the age of 5 and in pregnant women is kept below 10%; (ii) the growth retardation rate for children under 5 years old is decreased below 5%, and over 60% of infants aged 0-6 months are exclusively breastfed; (iii) narrow the height difference between urban and rural students, and the rising obesity rate among students is effectively brought under control; (iv) improve the nutritional screening rate of inpatients and the proportion of nutritional treatment of inpatients with malnutrition; (v) the awareness rate of nutrition and health knowledge of residents is increased by 20% on the existing basis; (vi) the per capita daily salt intake is reduced by 20%, and the growth rate of overweight and obesity is down significantly. Afterwards, Hunan Provincial Government issued "Hunan Implementation Plan of National Nutrition plan 2030". In 2019, some of the objectives were emphasized in "Hunan Provincial Government's Opinion on the Implementation of Hunan Health Action". When "Hunan Women's Development Programme (2021-2025)" and "Hunan Children's Development Programme (2021-2025)" Announced in 2021, above-mentioned objectives related to women and children were again emphasized, and practical measures were formulated with knowledge and information dissemination, targeted guidance, monitoring and evaluation, moreover, targeted management and service were specifically designed for children and pregnant woman. However, HGDP focuses on value chain development of selected commodities, which is not categorized as nutrition sensitivity.

2.2 Environment and climate context, trends and implications

16. The following sub section covers environmental and climate assessment.

a. Environmental assessment

17. Hunan Province is called "Xiang" in short, and its capital is Changsha. It is located in the transition zone from the Yunnan-Guizhou Plateau to Jiangnan hills and from the Nanling Mountain Mountains to Jiangnan Plain. The terrain is surrounded by mountains on three sides and consists of plains, basins, hills, mountains, rivers, and lakes. It crosses the Yangtze River and the Pearl River water systems and belongs to the subtropical monsoon climate.
18. **Dense river network** in Hunan Province. There are 5341 rivers with a total length of more than 5km and a total length of 90000km, including 17 rivers with a drainage area of more than 5000 Square kilometre. The water systems in the province are mainly Xiangjiang River, Zijiang River, Yuanjiang River, Lishui River and their tributaries, flowing from south to north along the terrain into Dongting Lake and the Yangtze River, forming a relatively complete Dongting Lake water system. Xiangjiang River is the largest river in Hunan and one of the seven major tributaries of the Yangtze River. Dongting Lake is the largest lake in Hunan Province, spanning Hunan and Hubei provinces. The total amount of water resources ranks sixth in the country, with a per capita share of 2500 cubic meters, slightly higher than the national level, indicating a certain advantage in water resources. However, due to the uneven distribution of time and space, the distribution and quality of water remains the main problems.
19. **Forestry** is an important element of the management of "mountains, rivers, forests, fields, lakes, grass and sand" systems, and is the core force for the construction of ecological civilization. As of the end of 2021, the province has completed 11.6974 million mu of afforestation, which is 109.32% of the planned amount. The Forest cover reached 59.97%, an increase of 0.01 percentage points over the previous year. The forest volume reached 641 million cubic meters, an increase of 23 million cubic meters compared to the previous year. The comprehensive vegetation coverage of the grassland reached 87.04%, which is the same as the previous year. The wetland protection rate has been re-rated at 70.54%. The total output value of the forestry industry reached 540.5 billion yuan, an increase of 5.9% compared to the previous year. There have been no major forest fires in the province.
20. **Biological resources** are rich in Hunan Province, which is one of the precious biological Gene pool in China and even in the world. There are 13 national first-class protected animals, such as South China tiger, clouded leopard, and milu deer; There are 1089 genera and more than 5500 species of Vascular bundle plants distributed in the province, accounting for 47.9% of tropical genera, including 64 species of national key protected wild plants, such as *Taxus chinensis mairei*, *Abies ziyuanensis*, and *Gleditsia tomentosa*. With complex floristic elements, diverse geographical elements and ancient origins, it is known by the plant world as an ancient plant kingdom that has not changed much since the Cretaceous, and it is the hometown of ancient relic Gymnosperm. Hunan Province has established 502 various types of natural reserves (Figure 1), protecting over 90% of rare and endangered wildlife and plant species on site. We have established 12 institutions such as botanical gardens, wildlife parks, and wildlife rescue and breeding centers, and have ex-situ protected a large number of wild plants and rare animals.
21. **Bamboo plantations**. Research has shown that the expansion and growth of bamboo can have a negative impact on the encroachment of farmland and habitats of other species, if not well managed. Measures can be taken to strengthen the management of bamboo forest boundaries. Digging bamboo shoots and cutting bamboo woods are commonly used methods for managing bamboo forests, effectively preventing the disorderly expansion of bamboo and increase the yield of bamboo shoots and the main grain of bamboo and wood. During the field mission, we also noticed that planting 75 to 150 support trees in each hectare of bamboo forest, selecting high-quality perennial tree species such as nanmu (*Phoebe zhennan* S. K. Lee & F. N. Wei) and *taxus chinensis* var. *mairei* (*Taxus wallichiana* var. *mairei* (Lemee & H. Léveillé) L. K. Fu & Nan Li). Supporting wood can effectively prevent bamboo bending, lodging, and other phenomena caused by rain and snow weather. Supporting trees increase the species diversity of bamboo forests and can avoid some pests and diseases in bamboo forests. Moreover, the withered branches and fallen leaves of broad-leaved support trees effectively supplement soil organic matter.
22. **Organic fertilizers and a limited amount of pesticides (mostly for oil tea)** are used in the planting value chain of bamboo, oil tea and Chinese medicinal plants in Hunan. For bamboo, Technical Regulations for the "One Bamboo and Three Shoots" Business Model of Moso Bamboo (Local Standards of Anhui Province, DB34/T 4105-2022) released by 2022, will be used for the management of such plantations for single or dual (wood and shoots) purpose including the prevention and control of potential pests and diseases. The Hunan Provincial Forestry Bureau has issued guidance regulations on the cultivation and management of *Camellia oleifera* trees, including seed selection, planting, water and fertilizer management, and field management^[4]. Chinese medical plants should be planted under the forest, and management measures such as fertilization must comply with relevant soil and water conservation requirements and forestry management requirements. The Hunan Forestry Bureau hold training activities to help farmers master techniques for bamboo forest, *camellia oleifera*, and understory crop management, including on the use of organic fertilizer and integrated pest management reducing the environmental risk losses without the use of chemicals.
23. **The traditional forestry processing enterprises** are small in scale and scattered. This model has low utilization efficiency of raw materials (such as bamboo utilization rate of only 15%), resulting in a large amount of waste, including electricity and water waste. This model has low productivity and can not adopt modern technology. Therefore, the project will invest to improve environmental sustainability of such processing enterprises.

b. Climate trends and impacts

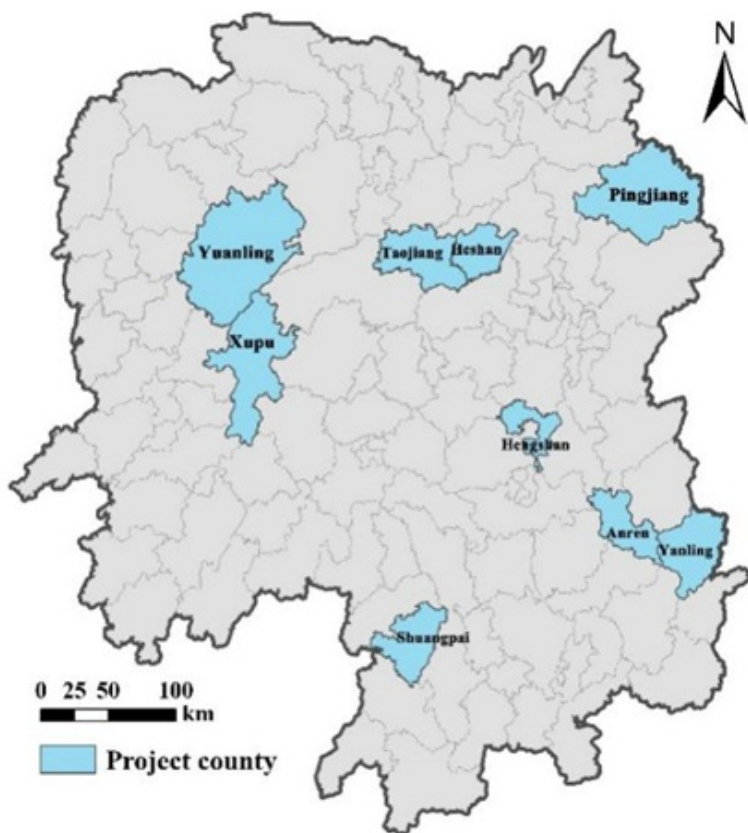
24. Project area (Figure 1& Table 1) in Hunan Province has a continental subtropical monsoon humid climate with three characteristics: firstly, it is rich in light, heat, and water resources, and the high values of the three are basically synchronized. Secondly, the climate changes significantly within the year. The winter is cold and the summer is very hot, while the spring temperature is variable and the autumn temperature drops sharply. The spring and summer are rainy while the autumn and winter are dry. The interannual changes in climate are also significant. Thirdly, the most obvious vertical climate change occurs

in mountainous areas surrounded by mountains on three sides, especially in the western and southern Hunan mountainous areas.

25. Table 1 The project counties and the prefecture

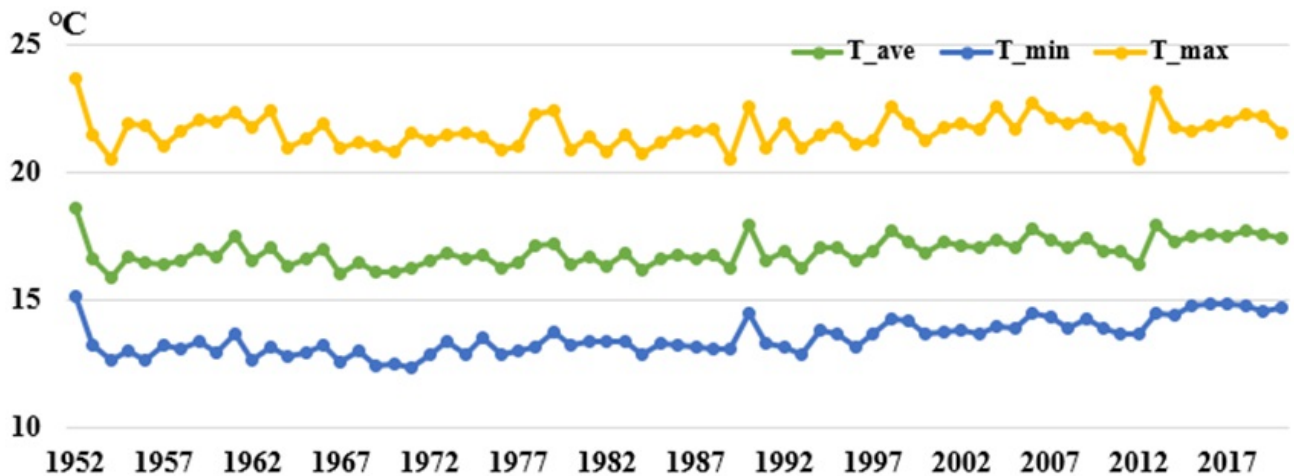
Prefecture	Yiyang □□□		Hengyang□ □□	Huaihua □□□		Chenzhou□ □□	Yueyang□□ □	Zhuzhou□ □□	Yongzhou□□ □
Counties	Heshan□ □□	Taojiang□ □□	Hengshan□ □□	Yuanling□ □□	Xupu□□□	Anren □□□	Pingjiang□ □□	Yanling□□ □	Shuangpai□ □□

26. Figure 1 The project regions (9 counties selected in Hunan province)



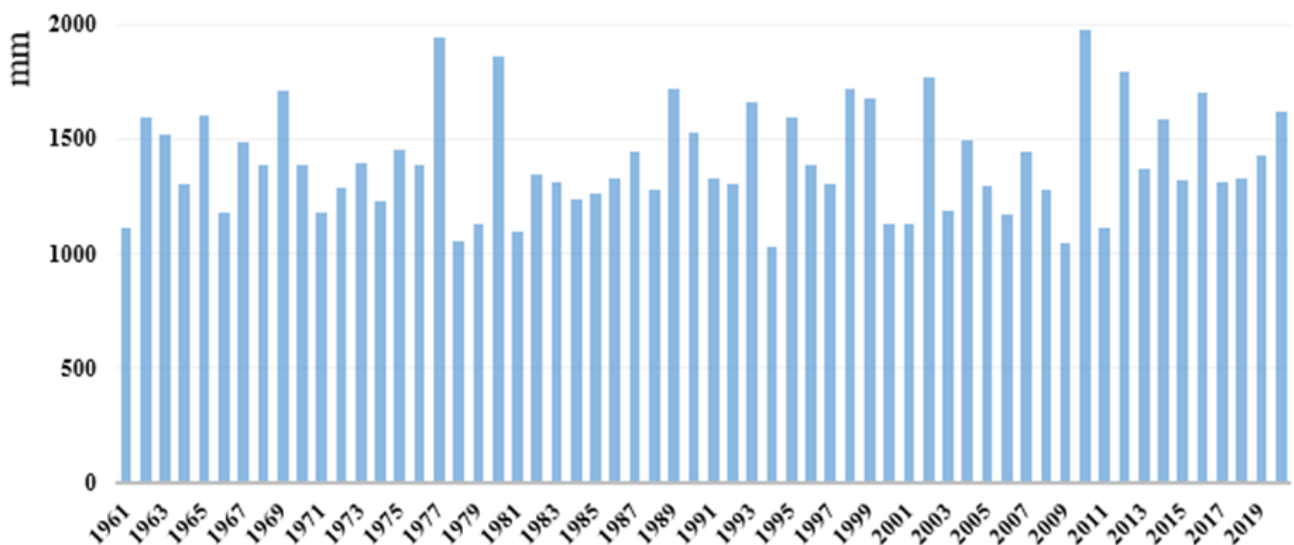
27. Based on the data of National Meteorological Information Centre (<http://data.cma.cn/en>), there is a national meteorological station located in Yuanling county. The historical temperature (1952-2020) and precipitation (1961-2020) were analysed, as shown in Figure2 and Figure 3, respectively. There are slightly upward trends for the mean temperature, low temperature, and high temperature in Yuanling county. The average of mean temperature in the past 60 years is 16.89°C; the average of low temperature is 13.53°C; the average of high temperature is 21.63°C. In the past ten years the warming trend is becoming more obvious; the average of mean temperature in the past 10 years is 17.38°C; the average of low temperature is 14.48°C; the average of high temperature is 21.85°C.

28. Figure 2 The mean temperature, low temperature, and high temperature in Yuanling county from1952-2020



29. Due to the continental subtropical monsoon humid climate, the rainfall in Hunan province is sufficient (Figure 3). In the past decades, the annual precipitation in Yuanling county has always been above 1000mm. There is apparent fluctuation trend for annual rainfall. The lowest annual precipitation was 1031.1mm, which occurred in 1994, while the highest annual precipitation was 1976.0mm, which occurred in 2010. There is an obvious upward trend that the annual rainfall is increasing. The average of annual precipitation from 1961 to 2020 is 1406.60mm.

30. Figure 3 The annual precipitation in Yuanling county from 1961-2020



31. According to data from the Climate Center of Hunan Province (<https://baijiahao.baidu.com/s?id=1754258119607533822&wfr=spider&for=pc>), the average temperature in Hunan Province in 2022 was 18.6 °C, which is 0.9 °C higher than the average from 1991 to 2020 (the same below), making it the second highest value recorded since 1910, only second to the 18.7 °C in 2021. The average temperature of each county and city ranges from 16.5 °C (in Guidong) to 20.1 °C (in Qiyang). The number of high-temperature days throughout the year is 58.2 days, 6.1 days more than the highest record (52.1 days) in 2021. Under the background of global warming, winter snowfall in Hunan shows a significant decrease trend, but there was a total of five snowstorm processes in the winter of 2021/2022.
32. From January 23rd to February 23rd in 2022, there was a month-long period of low temperature, cloudy, rainy, and snowy weather, during which the temperature remained low. The average temperature in the province was 3.8 °C, which was 3.4 °C lower than usual; The number of rainy (snowy) days reached 24.1, with a precipitation of 179.9 millimetres, which is 1.3 times higher than usual and has reached a new high in the same period since 1961.
33. From the end of March to the first ten days of July in 2022, there were 14 regional rainstorms in the province. Among them, rainstorm and heavy rainstorm occurred for five consecutive days from June 1 to 5, with large cumulative rainfall, strong extremes, high overlap of falling areas and raining heavily at night, and the comprehensive intensity level reached "super strong".

c. Climate change mitigation

34. According to the data from the Department of Ecology and Environment of Hunan Province, in 2020, the total carbon dioxide emissions in the province were about 310 million tons, ranking 17th in the nationally (ranked from small to large) and 2nd in the six central provinces. In 2019, the carbon dioxide emissions per unit of GDP in the province decreased by a cumulative 19.8% compared to 2015, completing the national task of 18% ahead of schedule.
35. Between 2015 and 2019, the total carbon emissions in Hunan fluctuated between 386- 393 million tons of CO₂e. Among them, energy consumption carbon emissions account for 76% of the total carbon emissions, industrial process carbon emissions account for about 22%, and agricultural land use carbon emissions (excluding agricultural energy consumption) account for about 2%, of which aquaculture is slightly higher than Plantation, and CH₄ emissions are slightly higher than N₂O emissions^[1] (Yang, 2022).
36. The overall agricultural carbon emissions of Hunan province increased first and then decreased from 2007 to 2017, and the carbon emission intensity showed a downward trend^[2] (Li et al., 2022). There were significant differences in the changes in the total agricultural carbon emissions of various counties (cities, districts) in Hunan province. The total agricultural carbon emissions of 74.59% of the county units showed a negative growth, and the carbon emission intensity of 94.26% of the county units showed a downward trend.
37. Forests create great opportunities for carbon sequestration. By the end of 2020, the forest land area of Hunan Province was 12.986 million hectares, with the forest cover 59.96%, and the forest stock is 618 million cubic meters. According to the evaluation of the Forestry Bureau, based on the 2019 resource data and forestry carbon sequestration pilot data, the province's tree forest area is over 9 million hectares, with an annual carbon sequestration output of 15 tons per hectare. The bamboo forest covers an area of over 1 million hectares, with an annual carbon sequestration of 12 tons per hectare, totalling approximately 150 million tons.
38. Bamboo forest has the characteristics of explosive, renewable growth and annual cutting, which contains huge carbon sequestration potential. In 2016, the "methodology of bamboo forest management carbon sequestration project" and the country's first bamboo forest management carbon sequestration CCER (national certified voluntary emission reduction) project were developed and completed. The country's first county-level bamboo forest carbon sequestration and storage trading center was established and opened in 2021;

2.3 Target group profiles

39. **Smallholder farmer households** in China have very smallholdings and 90% of smallholders farm are on less than 1 ha of land. Many of them have adopted a model of part-time management of agricultural production which allows them to alternate between farming in busy seasons with working in cities in slack seasons. Given the peculiar land ownership and use rights pattern in China, smallholders including ethnic minorities rent-out or rent-in land based on their livelihood strategies, and they are not necessarily well involved in the agribusiness in the project area. After the declared eradication of extreme poverty in February 2021, the government has redefined the focus support group in its state's well-being register system as vulnerable smallholder farmer households, which constitute of five categories: (i) households of subsistence allowance, (ii) households of marginal subsistence allowance, (iii) extremely difficulty households, (iv) former registered poor households under continued monitoring, and (v) low-income households. The first three categories lack active labour and they receive welfare allowances from the government. In 2022, the total population in the seven project counties was 4.86 million, and 45.2% are rural residents. Most of the counties have largely been able to alleviate poverty with only 1.7% belonging to the vulnerable population which is being monitored due to the potential risk of slipping back into poverty. Roughly half of the population in the counties are classified as active agricultural labour. On average, the landholding of arable land in the counties varies between 0.72 mu¹⁷ to 1.5 mu per person or an average of 0.93 per person or 2.47 mu per household, and the forest landholding in the counties varies between 0.73 mu to 14mu per person or an average of approximately 20 mu per household. While farming is a key source of income, households also rely on off-farm income. However, farmers' technical access is limited as well as marketing access. Only 33,090 farmers obtained technical training in 2022. 55,885 households share cooperative membership, in which, each cooperative covers 23 households in average; and only one-tenth of households are connecting production with enterprises. The average net income per capita in rural areas of seven project counties is CNY18,270, which is 93.5% and 90.8% of provincial and national levels.
40. **Rural women** are the primary labor force in the project counties due to the long-term massive rural male labor migration to urban areas. Overall, rural women have accessed to more opportunities to participate in agricultural development and community affairs, and gaining improved social and economic status. However, with the burden of both agriculture and housework, rural women are mostly restrained to gain income from on-farm production and labor work nearby. This limits their opportunity to obtain knowledge, skills and information, and there is still a distance for them to fully participate in decision-making on community development. Despite these challenges, rural women are eager for development opportunities locally, and their umbrella organization - Women's Federation (WF) is a grassroots agency dedicated to promoting women's rights and interests.

Rural women take 48.5% of the population in seven project counties with a vulnerable position. With limited income generation opportunities in rural areas, about 60% of women labors have to stay in rural playing the role of taking care family instead of engaging in urban migrant job. Despite this, only 10.9% of village are led by women; women-led cooperative and women-led enterprises represent only 6.8% and 16.4% in the project counties. With only 5.8% household head positions, the cooperative membership and contract with enterprise is usually signed under the name of male household head, even if women shoulder the majority of the production; and women only shared a quarter of technical training opportunities in 2022. According to a 2021 survey, the proportion of women who suffered physical and mental violence from their spouses in marriage was 8.6%, which decreased 5.2 percent points from 2010, as the government is taking form action against gender based violence.

41. **Rural youth** are the most active force for rural revitalization, and youth accounts for 32.7% in seven project counties. However, due to a lack of opportunities and investment capital to make a satisfying income in rural areas, they often migrate to urban areas for better income, and youth share close to half of migrant labors in the project counties. Limited employment options often lead to unsustainable situation either they seek urban or rural employments. To address this issue, it is worth exploring entrepreneurship and employment opportunities in agribusiness to attract and sustain youth in rural and agricultural sectors.
42. **Ethnic minorities** are integrated into the mainstreams of the society in China, and the government provides preferential policies and support to them in social, cultural, and economic development compared to the majority of Han population¹⁸. In the seven project counties, the ethnic minorities take 7.2% among total population, among them, 74.9% live in Yuanling County and another 19.8% are in Xupu County. Tujia, Yao and Miao are major ethnic minorities in Yuanling and Xupu counties. Ethnic minorities in the project area are in general well integrated in the existing socio-economic context, have livelihood strategies similar to those of the other rural populations, are not excluded from existing economic opportunities, are not discriminated, and have not distinct needs from the rest of the population¹⁹. According to the discussion with Miao villagers, cooperative head, and staff of county government departments, the development needs of ethnic minorities in the project area are to benefit from rural transformation through a private sector led green growth model as the other rural population.
43. Table 5 Target group typology, priority needs and potential response

Typology	Poverty level and causes	Coping strategies	Priority needs	Potential response
Rural poor and vulnerable farmers (Households/population monitored by national anti-poverty system, and former poor households/population) (Approx. 10-15%)	<ul style="list-style-type: none"> Highest vulnerability, comparatively low income, insufficient labor, low access to production and employment opportunity, and high vulnerability to shocks 	<ul style="list-style-type: none"> Subsistence and small-scale cash crops farming Casual labour 	<ul style="list-style-type: none"> Inclusive participation into development opportunities and benefit sharing or rural growth 	<ul style="list-style-type: none"> Inclusion in high value commodities production Inclusion in capacity building and differentiated skill training Ensuring equitable membership in cooperatives and participation in the processing
Diversified and relatively resilient smallholder farmers (Approx. 60-65%)	<ul style="list-style-type: none"> Moderate income, access to tailored services and employment opportunities, access to social capital Vulnerable to shocks 	<ul style="list-style-type: none"> Labor migration in urban Income from diversified farming Some access to information and network of opportunities and resources 	<ul style="list-style-type: none"> Improved access to information, skill, services, opportunities and resources 	<ul style="list-style-type: none"> Focus technical training on high value commodities production and processing Rural labour skill transformation Active participation in high value commodities value chain

<p>Better-off farmers (Approx. 20-30%)</p>	<ul style="list-style-type: none"> • High in income, education, access to public services, social capital • Low vulnerability to shocks • Generally having experiences in or exposure to migration and aware of opportunities 	<ul style="list-style-type: none"> • Market-oriented and profitable on and off-farm activities • Increased and improved human and physical capitals for competitiveness and productivity • Well connected to social and economic networks • Strong representation and influence in decision making 	<ul style="list-style-type: none"> • Better integration into value chains • Diversified marketing and market access • Continued influence in local decision making 	<ul style="list-style-type: none"> • Coaching for inclusive development • Knowledge on coaching and leading the vulnerable segments
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3. Institutional analysis

1. Legal framework and government institutions

1. Climate

44. **Climate institution.** The Ministry of Ecology and Environment is responsible for designing and monitoring national climate policies. Department of Climate Change Response is responsible for climate policy implementation. The Hunan Meteorological Bureau is responsible for providing early warning of meteorological disasters and providing agricultural meteorological services in this project
45. **Climate policy:** In 2020, President Xi Jinping proposed that China would reach the peak of carbon dioxide emissions by 2030 and make carbon neutrality come true by 2060 at Climate Ambition Summit [\[11\]](#). In 2022, Ministry of Ecology and Environment issued National Climate Change Adaptation Strategy 2035 (Second Strategy) which includes four type of adaptation measures: 1) strengthening climate change monitoring, early warning and risk management, 2) improving the ability of adaptation of natural ecosystems, 3) intensifying the resilience of economic and social systems to adapt to climate change, 4) establishing a regional pattern of adaptation to climate change. For the agriculture sector, significant actions are proposed, such as strengthening monitoring, early warning, and disaster prevention and reduction measures, improving the adaptability of the planting industry, guiding the rational development of livestock, poultry, and aquaculture industries, strengthening guarantee system. In line with such, the Medium - and Long-Term Plan on Climate Change issued by the Hunan Provincial government in 2014 proposes to establish a comprehensive mitigation system and enhance the ability to adapt. Improving rural infrastructure systems, especially water, roads and electricity, is a priority for improving the resilience of rural areas and agricultural systems. The plan emphasizes specific programs such as water harvesting, water-saving irrigation, watershed management, conservation agriculture and adaptive varieties.⁹

1. Biodiversity and environment

46. **Environmental and social safeguards** China legal framework for environmental protection and pollution control consists of more than 80 laws, 120 departmental bylaws, more than 1,000 technical guidelines and standards, and numerous local regulations. It is run under an institutional structure led by EEBs and assisted by multi-sectoral authorities. Major environmental and natural resource management laws include, the *Environmental Protection Law* (1989, amended 2015), *Environmental Impact Assessment (EIA) Law* (2003, amended 2018), *Water Law* (2002, amended 2016), *Water Pollution Prevention and Control Law* (2008, amended 2017), *Air Pollution Prevention and Control Law* (2000, amended 2018), *Solid Waste Pollution Prevention and Control Law* (2005, amended 2016), *Soil Erosion Control Law* (1991, amended 2010), *Marine Environment Protection Law* (2000, amended 2017), *Law of Protection of Wild Fauna* (2004, amended 2018), *Flood Prevention Law* (1998, amended 2016), *Fishery Law* (1987, amended 2013) and *Forest Law* (1998, amended 2009), *Land Administration Law* (1999, amended 2018), *Highway Law* (1998, amended 2017), *Energy Conservation Law* (2008, amended 2018), and *Urban and Rural Planning Law* (2008, amended 2019).
47. **The Environmental Protection Law** is the fundamental law in the PRC's environmental protection, and pollution prevention and control system. Its 2014 amendment is called the strictest environmental law in the PRC's history, and aims to protect and

improve the environment, prevent and control pollution, protect public health, and promote sustainable development, where an EIA should be conducted for projects with environmental impacts. In addition, it stipulates that the state practices an environmental protection target responsibility system, an evaluation system, an ecological protection compensation system, "three simultaneities" system,^[1] ecological redline protection system, total emission control system for key pollutants, pollutant discharge permit system, etc., and becomes a main tool for the Chinese environmental safeguard system. Such requirements were considered satisfactory in World Bank latest review of environmental management system: The World Bank considered that the institutional arrangement was rational, with sufficient staffing, sound implementation mechanism, public consultation and information disclosure, etc. The world bank assessed that the system is capable to prevent activities from seriously affecting natural habitats and promote sustainable ecological conservation.

48. Notably the following measures are worth noting in connection with project activities:

- **Ecological protection redlines** set in areas of ecological significance, environmental sensitivity, or vulnerability (human activities prohibited in core areas and dDevelopment and production construction activities are strictly prohibited in general control areas),
- **Environmental Impact Assessment**, with principle of "Three Simultaneousness" (The pollution prevention and control facilities of a construction project must be designed simultaneously, constructed simultaneously, and put into operation simultaneously with the main components of the project), with different categorization of risks associated to different types of requirements (see forthcoming annex being prepared by consultant)
- **Pollutant discharge permitting**³ and **Solid Waste Pollution Prevention and Control Law** (amended in 2020) by which entities that generate, collect, store, transport, utilize, treat, or dispose of solid wastes should timely disclose information on pollution control. Entities that generate straw bamboom processing waster or other agricultural wastes should promote recycling or other measures to prevent environmental pollution.
- **Ecological Environment Protection System is regulated by different law**, Water and Soil Conservation Law (2010 Amendment) ensures that project planning for work over 0.5 ha or earthwork or stonework over 1,000 m³ requires a water and soil conservation form or report to prevent soil erosion, Wild Plants Protection Regulations (2017 Amendment) to mitigate impact on local wild plants which shall be assessed in EIA and which prohibit illegal collection of wild plants.: If a construction project may have adverse impacts on growing environment of national or local protection wild plants, the PIU must ensure the impacts be assessed appropriately in the EIA. Any entities or individuals are prohibited to illegally collect wild plants or damage their growing environment.

49. **Biodiversity protection.** In order to protect the diversity of ecosystems, the *Hunan Provincial Wetland Protection Regulations* have been issued. The *Hunan Provincial Regulations on the Protection of Wildlife and Plant Resources* are implemented to protect species diversity. In order to protect genetic diversity, the implementation of the *Hunan Botanical Garden Regulations* have emerged. Shortly after COP15, Hunan Province issued a policy document on biodiversity conservation called "Implementation Opinions on Further Strengthening Biodiversity Conservation", setting action goals. By 2025, the proportion of natural protected areas in the province's land area will remain stable at around 11%, the forest coverage rate will remain stable at over 59%, and the national key protected wild animal and plant species protection rate will reach over 85%. By 2035, a unified and orderly spatial pattern for biodiversity conservation in the province will be formed, and the natural ecosystem situation in the province will fundamentally improve. Typical ecosystems, national key protected wild animal and plant species, endangered wild animals and plants, and their habitats will be fully protected.

50. **Figure 1 The protected area and ecological redlines in the project counties**

51. The enforcement of environmental laws and regulations is conducted by the ecology and environmental protection authorities within each level of the government. The regulatory enforcement and supervision authorities are the Ministry of Ecology and Environment (MEE) at the national level, environment, and ecology departments (EEDs) at the provincial level, and ecology and environment bureaus (EEBs) at the municipality level. The authorities are supported by environmental monitoring stations and environmental protection research institutes at different levels of the government

1. **Specific laws guiding infrastructure**

52. The **Rural Revitalization Promotion Law (2021) guides the overall scope and purpose of the project** Rural revitalization should include ecological protection in terms of conserving resources (e.g., water saving, energy saving), controlling NPS pollution (e.g., reduction of fertilizer and pesticide), improving rural living environment (e.g., sanitary toilets, rural domestic solid waste sorting and management, rural domestic wastewater treatment), improving safety of cropping inputs (e.g., prohibition of highly toxic and high residue pesticides), and protecting rural environment (e.g., recycling of crop straw, and utilization of livestock and poultry manure), etc

53. **Road constructions is guided by various standards:** National standard □ Technical code for village road engineering □ GBT_51224-2017 □ National standard □ Well-facilitated farm land construction—General rule □ GB/T 30600-2022 □ Ministry of transportation standard □ Design Specifications for Low Volume Rural Highway Engin □ JTG □ T3311—2021 □. Such different standards include several environmental requirements which are included in the ESMP/F:

1. The selection of road routes should reduce the impact on the ecological environment, save land resources, avoid bad geological areas, avoid high filling and deep digging, prevent soil erosion, and protect the environment.

2. Adapt to local conditions and terrain.
3. Demolition of farm houses and occupation of arable land should be minimized as much as possible.
4. Encourage the use of green materials and processes, build ecological canal systems, buffer zones, etc., to reduce adverse impacts on the environment.
5. If the original road can be used, it should be maintained and utilized as far as possible, and the repaired road should meet the corresponding design standards.
6. New roads should be arranged along irrigation, drainage channels and field edges to reduce crossing buildings.
7. On the main, branch canal, the top of one side can be widened as a road.
8. For production roads in the farm, the pavement should use sand, mud, plain soil pavement and other permeable pavement. In heavy rainfall areas, concrete pavement can be used.

54. **The Laws and specifications have requirements and regulations on the construction of forest industry infrastructure.** The Forest Law^[iii] □ Regulations on the Protection of Forest Resources^[iv] issued by the National Forestry and Grassland Administration, combined with Law of the People's Republic of China on Land Administration^[v], Implementation Regulations of the Land Management Law of the People's Republic of China^[vi], are jointly regulating forest industry infrastructure. During the construction of forest roads, measures should be taken to protect forest resources such as trees, water sources, wild animals and plants, and prevent natural disasters such as soil erosion and landslides. In order to enhance the ability of natural resource services to ensure the use of land for rural revitalization, the Ministry of Natural Resources has formulated the "Rural Revitalization Land Policy Guidelines (2023)" ^[1].

55. **The under-forest economy** is a new thing that has emerged in the field of agricultural production, and interplanting of Chinese medicine plants is an important component of under-forest economy. In 2013, pilot projects were launched in Guangdong, Jiangxi, Heilongjiang, Sichuan and other provinces to subsidize the under-forest Chinese medicine plantation, and the central government invested CNY 380 million to subsidize the under-forest Chinese medicine plantation. "The Guiding Opinions of the National Forestry and Grassland Administration on Promoting the High-quality Development of the Forest and Grass Industry" issued in 2019 proposed to "consolidate and enhance the development level of the economic industry under the forest", and to provide policy support for the under-forest Chinese medicine industry from fostering plantation and formulating technical regulations. In 2020, the National Development and Reform Commission and 10 other ministries/commissions issued "the Opinions on the Scientific Use of Forest Resources to Promote the High-quality Development of Woody Grain and Oil and Under-forest Economy", proposing to actively develop under-forest farming and related industries such as medicine plants, and put forward supporting policies from the use of forest land, industrial integration, taxation and finance. Under the promotion of relevant national policies, many provinces have successively issued support policies for the development of forest source Chinese medicinal materials industry. Sichuan, Heilongjiang, Yunnan, Guizhou, Shaanxi, Jiangxi and other provinces have formulated policies and preferential measures to accelerate the development of under-forest Chinese medicine plantation⁸. The under-forest Chinese medicine plantation in Hunan is vast, under-forest interplanting medicinal materials such as rhizoma polygonati, cortex phellodendri, polygonatum odoratum and dioscorea zingiberensis are widely planted in mountain areas in Hunan as well as in other provinces.

1. Social regulations and land tenure

56. **Labor:** The Department of Human Resources and Social Security of Hunan Province has formulated regulations and policies to safeguard the labor security rights and interests of workers^[viii]. **Social safeguards** are conducted to protect workers' life, safety and health. Enterprises provide safety training and education to new employees, so that they understand the company's safety production rules and regulations and operating procedures, and acquire necessary safety knowledge and skills. Enterprises establish a safety production archive management system to record various activities and achievements of safety production work, providing reference and lessons for future safety production work. Enterprises follow the labor rights protection law, giving equal employment rights to female workers and prohibiting gender discrimination.
57. **Displacement and compensation:** People that will need to provide the land will have to be compensated by law. The compensation standards for land expropriation include compensation for the loss of production and business caused by the expropriation of houses. Under the principle of the national unified guarantee of the basic living standards and property rights and interests of the expropriated farmers, each province and city formulated specific compensation standards for road construction according to the different levels of local economic development.
58. **Article III of Forest Law of the People's Republic of China indicate that forest resources belong to the state, except which prescribed by law belong to the collective.** Local governments above the County level are responsible for registering, recording and issuing certificates to confirm the ownership or use rights of the state-owned forests and collectively forests, trees and woodlands, private trees and woodland. Legitimate rights and interests of owners and users of forests, trees, woodland protected by law, it shall not be violated by any unit or individual. Forest and forest land ownership registration management approach provision that forest tenure rights is the owner of the right of ownership or use of forests, trees and woodlands. Forest ownership certification issued by the forestry department under the State Council or Government of provinces, autonomous regions and municipalities and government of districts directly admin by the city and the autonomous region. In accordance with the provisions of the Forest Law and its implementing regulations, the registration authority shall inform relevant local people government about which should be issued forest ownership certification. Forest land ownership dispute resolution approach provisions that before forest tenure dispute resolution, no permission any unit or individual harvest woods in disputed forest land and no permission engaged infrastructure or other productive activities in the disputed forest land.
59. In July 16, 2008, **the State Forestry Administration issued Regulations on contracting collective forest land.** According to the regulations, all the collective land which had been planted trees or vegetation-covered should be contracted to farmers for management, contract period of forest land use rights is 70 years, the contractor can apply for an extension of the contract period. The contracted land can be subcontracted, as mortgage for debit and credit, and used as investment capital for co-

developer share holder. Such property rights arrangements, endue more forest operation rights to the contractor, mobilize the enthusiasm of farmers to use woodland the resources.

60. **Gender-based violence.** China has a clear legal framework linked to the Protection of Rights and Interests of Women. The implementation of this framework has been yielding important results. According a 2021 survey, the proportion of women who suffered physical and mental violence from their spouses in marriage was 8.6%, a decrease of 5.2 percent points from 2010^[viii]. The Law on the Protection of Rights and Interests of Women, amended in October 2022, which covers women's political rights, rights in relation to the person and personality rights, in relation to culture and education, work and social security, property, marriage and the family, also provides for corrective measures and legal responsibility, including penal provisions. In addition, the Anti-Domestic Violence Law, from 2015^[ix], prohibits all forms of domestic violence; placing primary responsibility for preventing and ending domestic violence and protecting family members, in particular women, on the Government; and defining the specific responsibilities of government agencies, judicial organs and social organizations.
61. In May 2019, Hunan Provincial People's Congress issued the "Measures of Hunan Province to Implement the Anti-Domestic Violence Law of the People's Republic of China", allocating responsibility to relevant institutes according to law, including government departments of public security, civil affairs, judicial administration, education, agriculture and rural areas, human resources and social security, health, etc., and the people's courts. The implementation of Anti-Domestic Violence Law had great results including the establishment of a multi-departmental cooperation and consultation mechanism established in the government from central to county levels; various grass-roots linkage models such as "Public security + civil affairs + Women's Federation" and "Court + public security + community". Even if the project doesn't foresee that the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labor influx, land redistribution, or other actions that alter community dynamics, it will contribute to awareness on these issue through its work and training on women empowerment.

1. Environmental and social governance of enterprise

62. **Policy on ESG :** In June 2018, the China Securities Regulatory Commission (CSRC) issued the *Code of Corporate Governance Guidelines for Listed Companies*, formally establishing a framework for Environmental and Social Governance disclosure. The CSRC revised its requirements for annual and semi-annual reports in 2021, requiring listed companies to disclose ESG information. On December 21, 2021, the Ministry of Ecology and Environment released the [Measures for Enterprises to Disclose Environmental Information by Law](#) to regulate enterprises' disclosure of environmental information by law. They came **into force on February 8, 2022**, requiring five types of enterprises to disclose environmental information. The five categories of enterprises are: key pollutant-discharging enterprises; enterprises that are subject to mandatory review for clear production; listed companies and their subsidiaries at all levels; enterprises that issue enterprise bonds, corporate bonds, and debt financing instruments for non-financial enterprises; and other enterprises that should disclose environmental information under laws and regulations.
63. **ESG standards and rating** was introduced relatively late in China. However, an increasing number of companies are covered by domestic and international rating agencies which have emerged in China since 2015. Voluntary disclosure guidelines were published by the China Enterprise Reform and Development Society (CERDS) in June 2022. The recent guidance is comprised of three tiers of indicators with corresponding metrics to each tier. Most of the indicators align with ESG issues highlighted in international disclosure standards such as climate change, pollution and labour rights.
64. **Disclosure requirements and trends are expected to increase**, including regarding carbon to meet the [three major carbon milestones](#) for 2025, 2030, and 2060 for China to peak carbon and become carbon neutral. Other drivers includes **green finance which is the primary manifestation and driver of ESG investment in China**^[x]. The People's Bank of China and six other ministries issued the *Guidelines for Establishing the Green Financial System* in 2016, which set out the basis for green finance and later on, environmental reporting compliance standards. A subsequent series of policies have been released to guide and standardize green finance, which has continuously increased the scale of the green credit and bond market. There are seven main ESG investment strategies: ESG integration, negative screening, norms-based screening, positive screening, shareholder engagement, sustainability investment and impact investment. Among these, screening strategies are the main type of ESG investment strategy used by institutional investors in China^[xi].

1. Local Rural Institutions and stakeholder engagement mechanisms

65. **Women's Federation** is a dominant organization all over China as well in Hunan and in the project area. The Hunan Women's Federation (HWF) is the dominant women's organization in the Province and playing important role in gender mainstreaming and empowerment in project area. HWF is catering for all ethnic groups with the aim to create a bridge between women and government while making important decisions for safeguarding women's rights, and promoting gender equality. HWF has offices and representatives at the provincial, prefecture and county levels, and has very strong linkages down to the grassroots levels with representatives in townships and administrative villages. Since 2016, under the reform arrangement of All China Women's Federation (ACWF), HWF has expanded its organization structure with 40 elected members at county level, 28 at township level and 18 at village level. Consequently, HWF has stronger linkages with grass root women, and women's coverage in the project area is ensured.
66. **Communist Youth League (CYL)** is the most extensive youth organization through the country, and it has positioned itself as the organization systematically serving for youth development focusing on youth ideology and morality, youth education, youth health, youth marriage, youth career-orientation and employment, youth culture, youth social inclusion and participation, adolescent rights protection, adolescent delinquency prevention, and youth social security. Hunan Communist Youth League (GCYL) has very strong linkage to the grass root level. Besides CYL at provincial, prefecture, county and township levels, CYL also has its branch at village level.

67. **The government has** existing general practices of beneficiary engagement, disclosure and vertical complaint systems and practices at all levels. For instance, under the guidance of the people's government at the township level, the villagers' committee may organize the construction of village roads and local infrastructures in accordance with the principle of voluntary and democratic decision-making by villagers and the system of one case, one discussion. Designated channels and hotlines are publicly disclosed for receiving complaints and reports. There are early warning and defensive measures for emergencies. If necessary, arbitration and appeal can be conducted.
68. **In addition, specific Public consultation are required as part of social-environmental safeguards.** The *Law on EIA* (article 21) and the *Guideline on Public Participation in EIA* (2018) stipulate the information disclosure and public participation requirements during environment impact assessment. Except for construction projects designated as confidential, the construction unit for projects or programs requiring an EIS (i.e., highest risk category) is required to hold expert meetings and public hearings; or through other means to solicit comments and suggestions from relevant units, experts, and the public before submitting the EIS for approval. The *Technical Guideline on EIA: General Program* (HJT 2.1- 2016) moreover require ongoing stakeholder consultation throughout the EIA process (including screening, scoping and assessment process), and determines that stakeholders representing enterprises, social groups, nongovernment organizations, residents, experts, and members of the public that may be affected directly or indirectly by the project shall be consulted. The Guideline defines suitable consultation methods including questionnaire surveys, interviews, forums, panel meetings, public hearings, and/or other measures. Public consultation is not required for projects requiring an EIT or an EIRF.
69. **Information disclosure requirements.** The *Guideline on Public Participation in EIA* (2018) requires the construction unit or the contracted EIA institute and the relevant EEB disclose EIA information in a manner accessible to the public. EITs are disclosed on the relevant EEB website for a period of 10 working days. EIRFs are disclosed on the EEB websites immediately after its registration and will be displayed continuously. However, there are no requirements for disclosure of monitoring reports during construction.

4. Environmental and social category

70. The Social and Environmental Risk Category for the Hunan project is rated as Moderate, following the results of the Environmental and Social Safeguards Screening Checklist which acknowledge both limited risks of many interventions but also existence of strong government social and environmental regulations that have been evaluated as satisfactory by the World Bank and which reduce the risk of occurrence of problems and the scale of their impacts (see policy section). Major thematic issues and levels of risks are explained below:
71. **Environmental standards**
72. **Biodiversity**
73. The project will not invest in activities disruptive of the natural environment or biodiversity and notably will not intervene in any ecological red zones which are strongly protected in China. Under component 1, there will be no new bamboo plantations only rehabilitation and sustainable management of the existing ones which will lead to reduction in carbon emissions and biodiversity enhancement. As part of *Camellia Oleifera* improved management, some new plantation will be supported on used or degraded land thereby also positively contributing to the environment. The medicinal plants will be planted in the shade of trees, in commercial forest, and do not entail any erosion of the soil or other harmful consequences. The cultivation of bamboo forests and oil tea pays attention to soil conservation. Forestry planting also helps to improve water yield and ecological carbon sequestration. The passageways which are built on the plantations serve the dual purposes of transporting the bamboos down the hills and act as fire break.
74. **Resource efficiency and pollution prevention**
75. **Intervention in forest (standard 2.3):** The project is intervening on improving / restoring / regenerating existing plantation forests having an economic goal (not in natural forests). Only bamboo is harvested and harvesting practices are made to ensure sustainable bamboo forest cover. Furthermore, there is a debate on Bamboo plantation being forest as they are members of the grass family. Investments in infrastructure in such plantations are limited (maximum road length 6 km and mostly small production road) and will follow up dedicated government regulations.
76. Furthermore, the project seeks to improve **the sustainability of existing practices so that resources and pollution are better managed.**
- **Fertilizer and pesticide use (standard 2.6- 2.7):** As discussed with the local practitioners during the 2 missions, the fertilisers used on the project lands are organic fertilizers (mainly manure) and the project will only supply seedlings and bio-inputs and promote strict environmental organic standards included in production plans and agreements with corporate companies. For fertigation for *Camelia Tea Oil*, it does require liquid fertilizer, but it will improve both the water and the fertilizer use efficiency, avoiding leakages in the environment and maximizing benefit to the plants. Pesticides are not used in such plantations and integrated pest management practices will be promoted instead. The World Bank assessed that China as well as Hunan and Hubei have appropriate regulatory framework, institutional organization, staffing, and funding on chemical fertilizer management, green pest control and pesticide management and can support chemical fertilizer reduction and NPS pollution control.
 - **Release of pollutants, raw material consumption:** Enterprise park can promote economic development, improve resource

utilization efficiency, and thus improve environmental quality. Indeed, the establishment of enterprise parks is helping to move factories out of crowded urban areas, or rural areas where environmental pollution management is difficult due to their small size, and locate them in a well-regulated space which will assist in pollution prevention, solid waste disposal and enforcement and monitoring of quality standards including food safety requirements for edible products such as bamboo shoot production and Camellia tea. Furthermore, this approach enables industries to share resources enabling them to introduce advanced production processes and equipment, promoting the adoption of environmental protection technologies and clean energy by enterprises, thereby reducing pollutant emissions and improving environmental quality. Such aspects will be reviewed as part of the business plans review and along environmental and social impact assessments required by government of China

- **Water use:** Small scale additional irrigation system is planned to protect from droughts and therefore enhance water management and adaptation. It consists of small storage tanks and gravity drip irrigation systems to protect bamboo from droughts. The area of irrigation by reservoir and pipeline is 199,500 mu (13,300 ha), and 12,700 mu (850 ha) of integrated water and fertilizer area will be developed. Considering small patch of orchard for camellia tree, maximum size of fertigation will be 30 ha. Since the project area is mountainous and hilly, a single irrigation system is generally less than 500 acres / 200 ha. There are three kinds of irrigation water sources, one is a small spring on the mountain, the second is a river near the project area, and the third is a small reservoir near the project area. Due to the small irrigation area, the pump flow is only 20-100 m³ / h, so the impact on reservoir and river flow is negligible. Furthermore, for bamboo, irrigation will be used once or twice a year with water efficient system, so little volume will be taken (so 20-30 mm/year). There won't be canals within plantations but only to bring water from reservoirs to the plantation. Such irrigation system will increase water and energy efficiency (i.e. solar powered irrigation).
- **Forest road construction and potential degradation of ecosystems services / community risks:** road constructing may lead to soil erosion and vegetation destructions that can reduce ecosystem services and increase climate risks. However, there will be a mixture of upgrading of existing roads and construction of new roads which will be mostly too small to require an environmental assessment. As per government process, erosion control and drainage measures will be part of the process and contracting requirements. If roads larger in in sensitive areas, impact assessment will be conducted. China has strict regulations on these that can be found in the infrastructure Annex.

77. Social standards

78. **Cultural heritage:** The project will promote cultural heritage such as the use of traditional medicine, national treasure owned by the entire Chinese population that has been practicing it for centuries. Furthermore, the under-forest economy is now well regulated and covers 5.959 million ha. Thus, Camellia oil tea and under-forest Chinese medicine plantation are not cultural heritage in HGDP project area, and the project does not involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes.
79. **Indigenous People:** The project area has limited number of ethnic minority people (8.39%), among them, 74.2% inhabit in Yuanling County. The government applies preferential policies and support to ethnic minorities in social, cultural and economic development. The ethnic minority are well integrated with the ethnic majority of Han. There is no risk anticipated of the project to the ethnic minority people in the project areas. However, the project may be sited within commuting distance of indigenous communities, and offer employment to indigenous people. Therefore, an IPPF has been formulated as well as an FPIC in a culturally appropriate manner.
80. **Labour and Working Conditions:** These are highly regulated in the project counties and there is limited likelihood of violation or deviation. The field mission could see that Potential operational hazards and avoidance measures were marked in the factories visited during the mission.



81. Figure 4 Personnel safety management

82. **Community health and safety:** Government environmental management systems are designed to protect public and worker safety against the potential risks associated with exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials

1. **Building construction safety:** Any construction envisioning in the project need to have construction permits which require an environmental impact assessment and selection of carefully selected areas with limited exposure to climate/natural risks. The

construction will be designed and constructed by competent professionals, and certified or approved by competent authorities, having clear construction safety guidelines. This should also be clearly stated in the procurement of such constructions.

2. **Traffic:** Work track, dirt roads and gravel roads, planned in bamboo forest are used only for workers to deliver bamboo shoots and bamboo woods (Table 3). Unpaved Forest Road are 3.5 meter wide dirt roads. Paved with Gravel Forest Road are 3.5 meter wide gravel roads. The work track will not be used for pedestrian and traffic but only for farm workers so it is expected that maximum 10 people may use one track a day. The enterprise park will generate reasonable increase in traffic to bring production and workers to agropole but this will not create disruption considering the current traffic in the enterprise park areas already identified. This will be ascertained in line with relevant policies and institutional arrangements in place.
 3. **Labor influx:** additional labour will be required to develop the infrastructure, intensify agro-forestry work and engage in enterprise park processing activities; however, considering rural density of population in China, the project should be able to source labour locally to ensure additional labor can commute daily and won't affect the existing community setting.
83. **Resettlement and land tenure:** No resettlement is foreseen under the project but the project may lead to minor economic displacement and temporary change of land tenure arrangement. The allocation of land for roads is limited considering their limited width (1.5 to 3.5 meter max, so maximum 2% of an average smallholder plot) and possible compensation for road and enterprise constructions will follow government regulations; smallholder farmers may decide to sign long term land lease with the enterprise but this will not change ownership and will be done through a free and prior informed consent and dedicated government procedure (see institution section and recommendations).
84. **Financial intermediaries and direct investments:** The project will mainly invest in public infrastructure belonging either to the cooperative / village entity (road and irrigation). The ownership of the industrial park will belong to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure according to government social and environmental safeguards. Furthermore, China has recently updated their environment and social governance system for companies, providing standards for them to report and disclose environment and social elements and get them certified externally. This will be leveraged by the project to ensure all companies have required environmental and social management system (ESMS).

5. Climate risk category

85. The climate risk classification for the project is assessed as low.

- The project will be implemented in 7 counties which are located in subtropical monsoon humid climate zone with continental characteristics, the climate-related hazards include rainstorm, drought, high temperature, flooding, and cold. The rainy season lasts from March to July, with the rainfall of 600-1000mm, and rainstorm and flood occur frequently. The drought occurs from July to September, with rainfall of about 300mm, the high temperature of the south wind and high evaporation make it worse.
- However, the project is not situated in the most exposed and fragile area as it is in hilly areas rather than mountains (so no steep slope and elevation below 500 m as per China definition). The occurrence of weather-related hazards affecting crops, forestry and biodiversity has not been frequent.
- The population is not too sensitive as it is not mainly depending on agricultural income, poverty is low with strong social protection mechanisms and enabling environment. Finally, adaptive capacities are strong coming from government, community and farmers levels, including pre-disaster warning, post disaster support and agricultural insurance (supported by the project) that are widely carried out in the project area.

6. Recommendations for project design and implementation

86. To further strengthen social, environmental and climate management of the project, the following recommendations are made and detailed in the Environmental, Social and Climate Management Plan (ESCMP). They will combine two pathways for implementation:
- **Following existing government social and environmental regulations** that have been evaluated as satisfactory by the World Bank in terms of environmental impact assessment, ecological protection, pollution management, water and soil conservation, labour rights etc. Therefore, PMU will work closely with responsible institutions for follow-up supervision system, to oversee projects' performance in avoiding, reducing, or mitigating negative impacts on the environment.
 - **Integration of safeguards in overall project cycle:** reference to safeguards shall also be integrated in the Project implementation manual, project monitoring and evaluation system, project annual work plan and budget, in production and business planning activities, procurement plans (see procurement SECAP matrix) and within planned contractual arrangement between corporate and smallholders.

7. Further studies needed

87. As indicated and detailed in the in ECSMF, as per government guidelines, each sub-project will require a feasibility study and will be screened against China safeguards categories. Depending on the screening (grade A, B, C), the unit submitting the project shall conduct different types of environmental and social impact assessment. For instance, for infrastructure, a Project Environmental Impact Report Form will be requested. The Form specifies in detail the environmental risks and mitigation measures for the terrestrial ecosystem, surface and groundwater environment, acoustic environment, atmospheric environment, solid waste, and other aspects during the construction process of the factory building.
88. As Indicated in IPPMF, in case it was confirmed that project interventions take place in areas with ethnic minority and may impact their land use / access / knowledge, FPIC will be sought and will be documented in a report including a study reviewing socio-Cultural and land use Assessments and identifying Decision-Making Institutions and Representatives in targeted community and organize dedicated consultation.
89. Implementation of such studies is to be borne by government / project unit as per government guidelines.
90. Finally, as indicated in ESCMF, the framework and plan are draft version. A study is currently undertaken to benchmark more precisely government safeguards with IFAD safeguards to identify gap and update ESCMP and potential additional cost accordingly

8. Monitoring and evaluation

91. **Key elements of the monitoring and evaluation system** will be aligned to the logframe and will include specific responsibilities for monitoring targeted performance on environment and climate (including GhG carbon sequestration emissions, adoptions of sustainable practices, training of groups on sustainable natural resource management etc.) and for beneficiary tracking, especially women, youth and vulnerable groups. To that end, all people-centred indicators will be disaggregated by sex and age. Outcome Indicators, including IE2.1, SF 2.1 and SF 2.2 for empowerment, CI 2.2.1 for youth, and Environmental Sustainability and Climate Change indicators (CI 3.2.2), will be tracked at baseline, mid-term, and end-line as part of the COI surveys.
92. In addition, safeguards monitoring will include specific thematic monitoring, where the risk rating demand such mandatory requirements, in alignment with government safeguards monitoring and over the key risks identified:
- **Climate:** Indicators related to climate change, weather patterns and tracking / reporting any natural disasters
 - **Energy consumption and emissions:** as the project include an outcome indicator on GHG emissions, it will need to track energy consumption and GHG emissions throughout activities
 - **Biodiversity:** tracking localization of all project activities and land use change with geospatial coordinate to ensure activities are far from ecological zones as planned by government
 - **Road:** Collect geographic information system (GIS) data showing planned and completed transects of new and rehabilitated roads / infrastructure ; Monitoring and evaluating traffic and road safety risks to affected local communities and other road users throughout the project life cycle
 - **Labor influx :** monitor sourcing of labor and eventual risks and potential impacts on the health and safety of communities arising from the influx of project workers, including through grievance mechanisms analysis
 - **Water:** Monitoring and analysing water productivity and water use efficiency throughout the irrigation system and for implementing improved and adaptive water management and use efficiency.
 - **Enterprise monitoring:** there shall be regular inspection to control that enterprise go by their environmental and social governance frameworks and that all social and environmental provisions are followed.
93. **Such data** will be integrated in the general monitoring and evaluation system proposed by the project:
- **Grassroots level (VIG) data**, depending on the nature of indicators. In general, the state of benefits and participation at the levels of households and individual beneficiaries will be undertaken through the grassroots recording and reporting by VIGs and producer cooperatives.
 - **Grievance mechanisms** will be an important source of stakeholder feedback and identification of issues / risks to be addressed, including on safeguards aspects
 - **Rural business entity capacity development** and related improved performance will be recorded and reported by implementing partners, and through **an annual survey** of all programme-supported agribusiness entities. The CPMOs will organise the collection of data in accordance with the agreed indicators and report annually through the provincial PMO to IFAD. For this purpose, an operational data collection system of monitoring indicators will be established from the grassroots level (VIG and cooperatives) up to the PPMO. Such data collection will also include indicators to monitor implementation of safeguard plans (i.e. compliance with labor law, environmental protection etc.) and of the enterprise environmental and social management plans.
 - **Partners in charge of developing infrastructure and other activities will be required to disclose geo-spatial location** of all infrastructure / activities to ensure supervision of appropriate location of such activities and facilitate monitoring
 - **Semi-annual Project Progress Report.** On semi-annual basis, CPMO will submit progress report to PPMO that will need to include a section on implementation of safeguards
 - The project will conduct three rounds of **outcome surveys** (base-line, mid-term and end-line) which will both household survey and enterprise survey. Such outcome surveys could integrate some of such safeguard indicators.
94. **Considering the scope of infrastructure investments, it is recommended that the project invest in Geospatial and climate informed planning and monitoring management** across investments to enable decision-makers to make more informed, evidence-based decisions that consider spatial relationships and environmental factors and better monitor impact of project when applicable.
95. **Finally, the project could coordinate and leverage government environmental monitoring** system to manage overall ecological risks related to pollution, environmental degradation, enforcement of environmental regulations in enterprise (see ECSMF).

9. References

- Identify when specific subprojects require dedicated ESCMP - EIA according to China / IFAD regulations
- Describe how mitigation will be planned and implemented
- Identify when mitigation should take place, and who reviews and approves the plans
- Identify for the specific ESCMP, two-to-three safeguard performance indicators
- Determine who is implementing the safeguard provisions of the specific subproject
- Determine timing and cost of these procedures for the subproject
- Update draft ECSMP accordingly

117. The following table provides a generic framework assessing the different possible risks related to project activities. They will be adapted to each sub-project and its level of risks.

118. **Gap/ongoing work:** consultant will be reviewing and seeking to simplify the below matrix and clarify responsibility and budgetary element based on gap analysis., focussing notably on measures which are not included in current China regulation and which will require additional attention (so part of gap)

Impacts	Recommended Mitigation/Enhancement measures	Responsible Institution Implementation Phase (together with the PMO & SECAP Focal Point)	Indicative budget & financing source	Means & Frequency of Verification
Biodiversity inclusive planning	<ul style="list-style-type: none"> • The project will only intervene in areas that are already under some kind of agro-forestry system and will not support any conversion of natural forest. • Zoning will be done during project site selection to ensure that the project does not intervene in protected areas or biodiversity hotspots (including ecological redlines and water source areas). • The medicinal plants will be planted in the shade of trees, in commercial forest, and do not entail any erosion of the soil or other harmful consequences. • Furthermore, the project will promote activities that help to conserve soil and water resources. By adopting good agricultural practices, the project will also be conducive to the sustainable use of natural resources. 	Agriculture and Rural Bureau Ecological and Environmental Protection Bureau		Annually and ongoing as project is implemented Monitoring reports Status of mitigation measures verified at field
Genetic diversity and wild species in forest	<ul style="list-style-type: none"> • As per Wild Plants Protection Regulations (2017 Amendment), impact on local wild plants shall be assessed in EIA and illegal collection of wild plants prohibited.: Any entities or individuals are prohibited to illegally collect wild plants or damage their growing environment. 	Ecological and Environmental Protection Bureau		Annually and ongoing as project is implemented Integrated in EIA if triggered

<p>Biodiversity risks in Bamboo plantation</p>	<ul style="list-style-type: none"> · Out of the 3 value chains, only bamboo is harvested for woody material and the harvesting practices promoted are to ensure sustainable bamboo forest management. · Digging bamboo shoots and thinning bamboo forests are commonly used methods for managing bamboo forests, which can effectively prevent the disorderly expansion of bamboo and increase the yield of bamboo shoots and the main grain of bamboo and wood. · Bringing supporting trees: planting 75 to 150 support trees in each hectare of bamboo forest, selecting high-quality perennial tree species such as nanmu (<i>Phoebe zhennan</i> S. K. Lee & F. N. Wei) and <i>taxus chinensis</i> var. <i>mairei</i> (<i>Taxus wallichiana</i> var. <i>mairei</i> (Lemee & H. Léveillé) L. K. Fu & Nan Li). can effectively prevent bamboo bending, lodging, and other phenomena caused by rain and snow weather. Supporting trees increase the species diversity of bamboo forests. 	<p>Agriculture and Rural Bureau Ecological and Environmental Protection Bureau</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports</p> <p>Status of mitigation</p> <p>measures verified at field</p>
<p>Pollution and input risks in Agro-forestry / plantations</p>	<ul style="list-style-type: none"> · The area currently mainly uses organic fertility management that will also be promoted by the project together with improved use of mineral fertilizer in fertigation system notably (digital advisory for micro dosing). · Increasing the proper management of the plantation through adapted management practices (trimming, spacing, etc...) will allow for improved productivity and use of natural resources. · Improve the management of land by using the under tree cover for medicinal plants, making the most of the forest resources and using positive plants relationships for soil reconstruction. · If / when minimal use of chemical fertilizer is required, project to include in the tender document a list of approved/certified chemicals and incorporate them in the tender. The list of approved/certified would be based on existing national regulation. In addition, project will promote safe fertilizer use by ensuring that the correct investments and capacity-building activities for the selection, distribution, storage, limited / micro-dosed application and disposal of fertilizers are included in all projects. · The project will seek to expand the “monitoring and control” system to identify and pre-empt pest & disease infestation. It will be mainly managed through uprooting of sick / infected bamboo shoots and use of bio pesticides · For Bamboo, diversified supporting trees can avoid some pests and diseases in bamboo forests. Meanwhile, the withered branches and fallen leaves of broad-leaved support trees effectively supplement soil organic matter. 	<p>Agriculture and Rural Bureau Ecological and Environmental Protection Bureau</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports</p> <p>Status of mitigation</p> <p>measures verified at field</p>

<p>Pathways/Roads location & environmental management</p>	<ul style="list-style-type: none"> · The planning of forest roads should consider economic rationality and ecological sensitivity. Based on the distribution, density, and growth status of bamboo forests, the route and width of forest roads should be reasonably planned to minimize construction and operating costs and prioritize unused land, rehabilitation of old roads, and avoid any ecological hotspots; Sensitive localization shall go through an environmental impact assessment. · The pathways/roads planned are as follows: <ul style="list-style-type: none"> ü the 1.5-meter-wide forest road is not used for machinery, but only for people to walk. ü the 3.5-meter-wide transportation operation road is used for organic fertilizer material transportation and product output, with an average of 31m per hectare, and an average of 10 vehicles passing through per day per year. · Following government rules and good practices to minimize environmental impacts and address any erosion risks: Conform to the mountain trend, reduce excavation and fill; (ii) Avoid ecologically sensitive areas, such as steep slopes above 25°, to avoid soil erosion and vegetation destruction; in addition, integrate erosion control and drainage measures (iii) Choose the road form and structure that is conducive to ecological protection, and use local stone and adobe materials as far as possible for pavement; (iv) Avoid triggering landslides, and avoid the destruction of ecological environment and biodiversity. · Forest road density; geo-referenced monitoring and evaluation (M&E) system for location of roads and potential traffic / safety risk appearing. 	<p>Bureau of Forestry Department of Natural Resources Construction Bureau and Transport Bureau</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports</p> <p>Status of mitigation measures verified at field</p>
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<p>Reduce consumption of water, energy, raw material and pollution in enterprise parks</p>	<ul style="list-style-type: none"> · One of the purposes of the enterprise park is to reduce consumption of water, energy, raw material and pollution in comparison with individual spread out enterprises not having the means to invest in technology to optimize the use of water, energy, raw material. For example, in the enterprise park, the heating system will be mutualized using waste as heat source. · The location of the enterprise park can only be selected on industrial land, taking into account land costs and meeting the long-term development needs of the industrial park. · The selection of enterprise is subject to disclosure of environmental and social governance measures · Green, low-carbon, and high energy efficient drying, grinding, transportation, and heating equipment will be purchased and installed in the enterprise park. · Contractor's HSMP is to include safe disposal of construction waste and worker camp waste, mitigation of risks to and impacts on the community resulting from the contractor's work, safety of deliveries and transportation, and disposal of hazardous materials and waste. · Procurement of processing equipment, construction material and construction firms will include technical specifications that respect all government regulations on consumption of raw material and favor projects with the least consumption of raw material (including energy water etc.) and those promoting renewable energy and recycling of material; · Integrate additional social and environmental measures in business planning and financing agreement of the enterprise parks and corporate processing equipment (in addition to existing strict regulations of government): for instance to pilot and test improved utilization rate of raw materials / waste with bio-plastic, as well as the production of high-performance bamboo based fiber composites. Invest in improved energy efficiency and piloting / trying use of solar energy or leverage use of waste etc. 	<p>Bureau of Forestry Department of Natural Resources</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports</p> <p>Status of mitigation measures verified at field</p>
<p>Reduce pollution and health risks in warehouse construction</p>	<ul style="list-style-type: none"> · Ensure proper use of Warehouse to mitigate pollution and health risks: The selection of the location of the warehouse for storing fertilizers should meet the requirements of GB/T 42958-2023 "Instructions for the Use of Fertilizer Products". The warehouse should be far away from water sources and residential areas, should be built in a place with high terrain and no water, should be equipped with fire equipment and first aid medicine boxes, should have good ventilation conditions and install lighting system. 	<p>Construction Bureau</p>		

<p>Reduce consumption of water, material and energy in Irrigation and mitigate pollution risk/leakage</p>	<ul style="list-style-type: none"> · careful planning of water infrastructure against government laws and safeguards to reduce water and energy consumption for instance through renewable energy and drip irrigation systems. · In preparation, the impacts of climate change on water supply, water demand, frequency and intensity of floods and droughts will be assessed and integrated into system planning. · Appropriate adaptation and mitigation options will be integrated into system design and operation, including the use of adaptive technology models and engineering, and the application of energy-efficient technologies and equipment to support effective water resources management. · For instance, Fertigation shall ensure sharp reduction in use of water and fertilizer in camelia oil tree. · Source of water shall be surface water (water harvested and stored from mountain streams and springs; in some cases, it will be pumped water from the rivers) or small reservoir; Feasibility study / environmental study to review and consider water availability and ensure impact on reservoir and river flow is negligible. · There will be no pumping in the peak of the dry season where irrigation water will come from the stored water in ponds and reservoirs. There will be no pumping of ground water financed by the project. · The project could try and demonstrate use of bamboo pipes instead of plastic pipes for low cost irrigation in bamboo plantations. · The O&M associations/group, like WUAs in areas of water scarcity, will be trained in adaptive water management for water use efficiency under different climate condition. · In most cases pipe or drip irrigation will be used and close loop circuit should be supported to have leakage of inputs. 	<p>Construction Bureau</p>		
<p>Droughts</p>	<ul style="list-style-type: none"> · Undertake drought risk assessment and zoning. · Review genetic diversity & possible options for better adaptation. · Promote the constructions of supporting facilities in irrigation areas · Promote water-saving and water harvesting practices in project areas including through water ponds. · Weather related insurance for agroforestry will be piloted through the project. · Develop drought monitoring and warning network as well as use of relevant climate advisory services: in areas with water scarcity: installment of a network of digital water meters in strategic places in the irrigation system and in the design of an instant water flow data registration and analysis system. The data on water flows will be combined with collected data influencing crop water needs, crops and varieties cultivated in the various fields, their yields and type of irrigation equipment used. This will allow for monitoring and analysing water productivity and water use efficiency throughout the irrigation system and for implementing improved and adaptive water management and use efficiency. 	<p>Hunan Meteorological Bureau; Hunan Water Resources Department; Department of Agriculture and Rural Affairs of Hunan</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports;</p> <p>Status of mitigation and adaptation actions verified at field</p>

<p>Rainstorm and flooding</p>	<ul style="list-style-type: none"> · Identify risk areas in Business Plan (BP) planning and avoid construction of agricultural infrastructure in climate risk hotspots. · Acquire meteorological services in rainstorm monitoring and warning · Adopt flood management considerations for BPs in project areas vulnerable to flood and rainstorm. · As part of the training modules, build capacity of farmers in sustainable land management to reduce flooding loss. · Incorporate climate change factors and nature-based solutions into infrastructure improvements to increase resilience to natural disasters and the impacts of climate change: for instance, with canal setting, need to enlarge the section of canal. 1.3-1.35 factor can be used or even larger one, depending on climate change and size of flow rate; When construction of roads, anticipate potential erosion / flooding risks and mitigate risks by protecting slopes, ensuring passage way / diverging canal for water to direct water flow better/avert risks, and restoring ecology nearby the roads with local species / trees; Use vegetation cover to reduce water erosion / improve water storage. · IMGs, supported by County PMO, will conduct disaster risk management following government strategies. 	<p>Hunan Water Resources Department;</p> <p>Hunan Meteorological Bureau;</p> <p>Department of Agriculture and Rural Affairs of Hunan</p>		<p>Annually and ongoing as project is implemented</p>
<p>Disaster & general climate risks</p>	<ul style="list-style-type: none"> · The project will take advantage of proven interventions and experiences in mitigating the vulnerability of the target groups to ecosystem and climate impacts in the country programme and incorporate the good practices in the final design. · Project will also invest in climate resilient practices. Participating stakeholders will ensure availability of climate advisory / alert systems, adoption of disaster preparedness plan and promote use of adapted insurance for the communities and beneficiaries. · Promote use of Forestry insurance shall include policy support addressing natural disasters, harmful biological disasters, accidents, epidemics, diseases etc.in Project area. 	<p>Bureau of Emergency Responses, Bureau of Meteorology</p>		<p>Annually and ongoing as project is implemented</p>

<p>Reduce risk of erosion and loss ecosystem services in infrastructure, notably roads</p>	<ul style="list-style-type: none"> · The cultivation of bamboo forests and oil tea pays attention to soil conservation, and paving gravel path on the slopes can serve as a barrier to maintain soil and nutrients. · By law, for any production or construction project that may lead to soil erosion, a water and soil conservation (WSC) plan shall be prepared proportionate to the impacts of production or construction projects and the protection work needs to be done together with the main project and checked later. Hunan developed and issued provincial measures on enforcing the “Water and Soil Conservation Law” and highlight the necessity of preparing WSC plans. · There will be a mixture of upgrading of existing roads and construction of new roads. Most of the roads are too small to require an environmental assessment. The responsibility for rural roads has been transferred to the CARA, who will oversee that proper erosion control and drainage measures are built into the bidding process, contracts, and the engineering design before they give the final permission for the road construction. · Township governments working with the County PMO will manage the contracting process. In addition to the constructing company, a supervision company will be contracted to oversee the works and its acceptance. A warranty is included in the construction contract, which makes the constructing company responsible for fixing any failures in the works, including the failure to apply proper soil erosion control and drainage measures, within the 1st year after the end of the project. · Most of the roads will go through current forest land and collectively owned barren land. In a few cases forestland will be impacted, which will require the assessment of impacts and approval from the forest Bureau. Forest land with any protection category should be avoided. · Before the investment in any road infrastructure an operation and maintenance (O&M) plan for each section of the roads must be prepared, including roles and responsibilities, budget and sources of funding to ensure management of the roads and continuity of erosion mitigation infrastructure 	<p>Construction Bureau and Transport Bureau</p>		
<p>Exclusion of most vulnerable women, youth and persons with disabilities</p>	<ul style="list-style-type: none"> · Targeting, gender and social inclusion strategy is developed and fully applied · Quota applied to women and youth in project activities and leadership positions · Apply measures to address women’s burden and save women’s time and labour. · Strengthen women leadership and oversight: The women federation will oversee gender aspects, participate in village implementation group and create awareness / capacity on gender related issues. 	<p>Department of Agriculture and Rural Affairs of HGDP Implementing partners</p>		<p>Annually and ongoing as project is implemented</p> <p>Number of women, youth a in project activities</p>

<p>Indigenous People and ethnic minority & cultural heritage</p>	<ul style="list-style-type: none"> · This is not foreseen to happen in the project but when a project proposes to utilize cultural heritage / heritage of IP, including knowledge, innovations or practices of local communities to benefit the project or for commercial purposes, communities should be informed of: (i) their rights under national law; (ii) the scope and nature of the proposed use; and (iii) the potential consequences. · FPIC of the local communities should be sought, and arrangements should be made for fair and equitable sharing of benefits. · The project Stakeholder engagement strategy includes ethnic minority. · The procurement of medicinal plant material and equipment / consultancy to support medicinal plants value chain will respect government latest regulations on the topic and select relevant local species recognized at national level with clear commercialization regulations and consultation mechanisms 	<p>Bureau of Forestry, Township/coun t y governments</p>		<p>Annually and ongoing as project is implemented</p> <p>Annual and baseline survey, project M&E reports</p>
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<p>Work safety and labor conditions</p>	<ul style="list-style-type: none"> · Business Plan and investment agreements will include articles and commitment of compliance with national laws and regulations in safeguarding worker safety and health. · Training on Occupational safety and health measures are applied to establish and maintain a safe and healthy working environment, including the prevention and protection of workers from chemical, physical, biological and psychosocial hazards (including violence and harassment). · Project to include contract clauses for OSH measures to protect project's workers from injury, illness or impacts encountered in the workplace or while working to be included contract provision. high-quality Health and Safety Management Plan (HSMP) may be introduced as applicable in consultation with PPMU for specific value chain actors based on assessed risk factors and exposure. · Identify potential hazards to workers, particularly those that may be life-threatening. For instance, Bamboo, Camellia oleifera, and herbal medicine are all planted and harvested in mountainous areas so will require safety training for workers and ensure they are equipped with protective measures such as clothing, hats, etc; · Protective measures include hazard labelling in languages understandable to the project workers, training and equipment to prevent occupational exposure to hazardous substances and materials; · Identify, prevent and respond appropriately to gender-based violence and harassment in the workplace; · Wages and salaries are negotiated by both parties and implemented according to industry standards. · The workers involved in the project will sign contracts ensuring regular and timely payment of wages; adequate periods of rest; holiday, sick, maternity, paternity, and family leave; written notice of termination and severance payments, as required under national laws and project Labour Management Procedures . Deductions from wages will only be made as allowed by national law or the project's Labour Management Procedures, · At the beginning of the project, standard contract templates for labor aligned with government policies will be developed · The project's beneficiary feedback and grievance redress system will be put in place in complementarity with the government's vertical complaint system. Hunan Women's Federation (HWF) will be engaged to help to protect the legitimate rights and interests of women workers. · There are early warning and defensive measures for emergencies. If necessary, arbitration and appeal can be conducted. 	<p>Country Forestry Bureau, enterprises, industry associations</p>		<p>M&E report, supervision report</p> <p>Prior review of template for BPs and agreement, supervision missions</p>
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<p>possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?</p>	<ul style="list-style-type: none"> · Ensure relevant safety measures and emergency preparedness against natural or human hazards is included in the procurement documents. · Infrastructure shall be climate resilient · Bid and contract requires contractor to erect adequate warning signage's and also take up 3rd party insurance and construction insurance. Independent assessment of structural integrity would be undertaken by government during construction. · Contractor's HSMP is to include safe disposal of construction waste and worker camp waste, mitigation of risks to and impacts on the community resulting from the contractor's work, safety of deliveries and transportation, and disposal of hazardous materials and waste; · Contractor's HSMP is to incorporate emergency preparedness against natural or human hazards. · GPS coordinates of infrastructure sites shall collected by the contractor following a systematic and standardized methodology, 	<p>Construction Bureau</p>		
<p>Influx of project workers</p>	<ul style="list-style-type: none"> · Corporate company bidding to join the project and enterprise park will need to include assessment of labor needs and plans to source labor; · it is foreseen that the labor will be locally sourced for the project but in case labor may come from outside the communities, the proposal shall include appropriate mitigation and management measures to address risks and potential impacts on the health and safety of communities arising from the influx of project workers. · Accordingly, Contract Conditions will include: · Gender-based violence, sexual harassment and sexual exploitation and abuse will lead to an employee's termination of contract under the contractor's code of conduct. · Influx of workers from outside project area limited to the minimum necessary and proposal shall include appropriate mitigation and management measures have been taken to address risks and potential impacts on the health and safety of communities arising from the influx of project workers. · Fair and equal wages along and living conditions 	<p>Construction Bureau</p>		

<p>Community health</p>	<ul style="list-style-type: none"> · In the construction of public infrastructure, the design, construction, and operation of structural elements comply with national legal requirements and the IFAD's "Environmental, Health and Safety Guidelines", while also considering the safety risks to third parties and affected communities. Both bamboo shoot food processing factory and bamboo wood processing factory need to have construction land permits which require environmental impact assessment and selection of carefully selected areas with limited exposure to climate/natural risks; Furthermore, project elements will be designed and constructed by competent professionals, and certified or approved by competent authorities. · Ensure relevant safety measures and emergency preparedness against natural or human hazards · Bid and contract requires contractor to display adequate warning signage's and also take up 3rd party insurance and construction insurance. Independent assessment of structural integrity would be undertaken by government during construction. · The residents in the project area provided material support in accordance with the local government's emergency plan, which included funding and material assistance for various activities. · The project will adopt a Do No Harms approach and will commit to addressing unintended consequences and potential harms. The project will be committed to protection of all vulnerable people and will include articulated channels for referral to services where available. As part of its gender and social inclusion (GSI) strategy, it will reflect the understanding that bias, resistance and backlash and has nuanced approaches to address them and will also reflect the principle of transformation starting with oneself by investing in GSI capacity building of project implementers and community members. · Law of the People's Republic of China on the Prevention and Control of Environmental Pollution Caused by Solid Waste will guide the waste management plans of processing factory 	<p>Township/court y governments Women Federation, County Forestry Bureau</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports;</p> <p>Status of mitigation and adaptation actions verified at field</p>
<p>Road traffic risks / road safety</p>	<ul style="list-style-type: none"> · It is not foreseen that the road infrastructures in the project will lead to significant increase in road traffic, nevertheless borrowers/recipients/partners are required to · ensure applicable traffic rules and road safety measures in the rural road network will need to be adhered to and road signs installed as needed according to the national regulations. · incorporate technically and financially feasible road safety measures into the project design documentation to prevent and mitigate potential road safety risks. · submit geographic information system (GIS) data to IFAD showing planned and completed transects of new and rehabilitated roads. · When appropriate, borrowers/recipients/partners must undertake a road safety assessment for each phase of the project and monitor incidents. 	<p>Bureau of Forestry Bureau</p>		

<p>Fair benefit sharing – lease negotiation etc.</p>	<ul style="list-style-type: none"> · Empower / train smallholders to negotiate fair conditions and improve benefits from engaging in partnership with enterprises / value chains · Enterprises and small farmers negotiate the terms of rent, lease term, renewal and termination to ensure the balance and protection of the interests between the lessor and the lessee. · This fair benefit sharing approach helps to establish long-term stable leasing relationships and promote cooperation and development between both parties. · Subprojects (Infrastructure funded by Investment grant) to incorporate provision based ESMP in reference to national and/or provincial guidelines. Work commencement conditional to satisfactory implementation of RAP by Project/Local Government, as certified by the supervision engineer. 	<p>Bureau of Forestry Department of Natural Resources</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports</p> <p>Status of mitigation measures verified at field</p>
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<p>Minimize displacement and land tenure risks along side infrastructure development</p>	<ul style="list-style-type: none"> · Minimize economic displacement during infrastructure construction, applying government measures favoring construction in barren land / existing constructions. · Irrigation: The water harvesting and irrigation infrastructures financed by the project are small scale and low risks with ponds or small reservoir from 50-100m³. Only limited land areas will be used for reservoirs and pumping stations. Most of this land is currently village collectively owned barren land. Transparent, informed and documented discussion with all farmers benefitting from the planned irrigation system to reach voluntary signed consent with land user rights holders for placing water ponds or pools on their land. Farmers may decide compensating affected farmers by transferring user rights to land from non-affected farmers. · As described in the government policy, if road construction requires crossing or occupying residents' homes or cultivated land, which should not be the case in the project, there should be clear resettlement plans and compensation schemes to ensure that the lives of affected residents are not greatly affected. Transparent, informed and documented discussion with all farmers benefitting from the road and affected by its routing to reach voluntary signed consent with land user rights holders of farmland proposed for conversion to the road. Farmers may decide compensating affected farmers by transferring user rights to land from non-affected farmers. Monetary compensation may also be used. · Strengthening property rights registration and land management, applying government regulations and considering the following additional safeguards^[31]. · Clarifying land rights and establish safeguards to protect the legitimate tenure rights of spouses, family members and others who are not shown as holders of tenure rights in recording systems including in contract agreements with the Corporates. · In case of land dispute, do not engage in infrastructure or production investments in concerned land unless dispute settled formally through fair, open, and transparent means. · Contracting parties should provide comprehensive information to ensure that all relevant persons are engaged and informed in the negotiations, and should seek that the agreements are documented and understood by all who are affected. The negotiation process should be non-discriminatory and gender sensitive. · In case of economic displacement to construct infrastructure, ensure appropriate compensation as per province standards following the principle of the national unified guarantee of the basic living standards and property rights and interests of the expropriated farmers. 	<p>Bureau of Forestry</p>		<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports</p> <p>Status of mitigation measures verified at field</p>
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<p>Risks related to collaboration & direct investments with private enterprise (insufficient ESMS or capacities to implement it)</p> <p>Footnotes</p>	<ul style="list-style-type: none"> · Ensure due diligence assessment of beneficiary enterprise; ensure that companies have required environmental and social management system (ESMS) in line with China recently updated framework for disclosure of environment and social governance system for companies, providing standards for them to report and disclose environment and social elements and get them certified externally. In addition, capacity to implement ESMS will be screened and provision for capacity development made in case of capacity gaps · Project ES To provide support and oversight to and potential hire additional consultants to support implementation, monitoring and reporting. · Maintain government and people participation in operation and management of investments: The project will mainly invest in public infrastructure belonging to the cooperative / village entity (road and irrigation)- that will be operated and maintained at that level through ad-hoc committees according to government social and environmental safeguards. The ownership of the industrial park will belong to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure according to government social and environmental safeguards. · Enterprise shall submit annual report on their activities as well as implementation of ESMS and be subjected to routine visits by project and entities responsible for that at government level · FIs and direct investees are required to prepare an ESMS comprising: (i) environmental and social systems, procedures and capacities for assessing, managing and monitoring risks and impacts of direct investment and FI subprojects; and (ii) a portfolio risk-management framework that ensures a return on investment and sustainability. This should be proportionate to the risks and impacts of each project, and the risk profile of the FI's overall portfolio. 	<p>Bureau of Forestry CDIC</p>		<p>Business Plans review and regular implementation supervision</p>
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Environmental and Social Safeguards Classification: Moderate

Environmental and Social Safeguards				
Biodiversity conservation	Yes/No	Likelihood	Consequence	Risk Rating
1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	Yes	Possible	Moderate Project will significantly affect modified habitat, but will not impinge on natural habitat or critical natural habitat.	Moderate
1.2 Could the project involve or potentially lead to activities involving habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, ICCA, etc.)?	No			Low
1.3 Could the project potentially involve or lead to an increase in the chance of human-wildlife encounters/conflict?	No			Low
1.4 Could the project potentially involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?	No			Low
1.5 Could the project potentially involve or lead to impacts/risks to migratory wildlife?	No			Low
1.6 Could the project potentially involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	No			Low
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?	No			Low
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Yes	Likely	Minor Project may possibly require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Moderate
Resource Efficiency and Pollution Prevention	Yes/No	Likelihood	Consequence	Risk Rating
2.1 Could the project involve or lead to the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes	Possible	Minor Pollutants may possibly be released, either routinely or by accident, but treatment systems are proven and verified. Receiving environment has absorptive capacity.	Moderate
2.2 Could the project involve or lead to primary not environmentally sustainable production of living natural resources? (Note: this includes the cultivation or rearing of plants or animals, including annual and perennial crop farming, animal husbandry (including livestock), aquaculture, plantation forestry, etc)	Yes	Possible	Moderate Project is fully dependent on production of living natural resources. Project is sited in an existing agricultural area, with low environmental and/or social sensitivity.	Moderate
2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	Yes	Likely	Minor Only a small component of the project is focused on forestry, and this aspect is well regulated.	Moderate

Environmental and Social Safeguards				
2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?	Yes	Likely	Minor The project will require consumption of raw materials, energy, and/or water, but this will be a small component of the project, and impacts can be appropriately managed.	Moderate
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?	Yes	Possible	Moderate The project needs a considerable amount of groundwater or surface water. This will require a minor extension of existing sources. It includes construction of large-scale irrigation schemes rehabilitation/development – below 300 ha per scheme	Moderate
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Yes	Likely	Minor The project only requires minimal amounts of fertilizer	Moderate
2.7 Could the project involve or lead to procurement, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	No			Low
2.8 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	No			Low
2.9 Could the project involve livestock – extensive and intensive systems and animal products (dairy, skins, meat, etc.)?	No			Low
Cultural Heritage	Yes/No	Likelihood	Consequence	Risk Rating
3.1 Could the project be located in areas that are considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage?	No			Low
3.2 Could the project directly or indirectly affect indigenous peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (tangible and intangible)?	No			Low
3.3 Could the project involve or lead to significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No			Low
3.4 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No			Low
3.5 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No			Low
3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No			Low
indigenous peoples	Yes/No	Likelihood	Consequence	Risk Rating
4.1 Could the project be sited in areas where indigenous peoples are present (including the project area of influence)?	Yes	Possible	Moderate The project may have a moderate impact on indigenous people, because it is sited within commuting distance of indigenous communities, and because it offers employment to indigenous people.	Moderate
4.2 Could the project result in activities located on lands and territories claimed by indigenous peoples?	No			Low

Environmental and Social Safeguards				
4.3 Could the project result in impacts on the rights of indigenous peoples or to the lands, territories and resources claimed by them?	No			Low
4.4 Could the project result in the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No			Low
4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No			Low
Labour and Working Conditions	Yes/No	Likelihood	Consequence	Risk Rating
5.1 Could the project operate in sectors or value chains that are characterized by working conditions that do not meet national labour laws or international commitments? (Note: this may include discriminatory practices, high gender inequality and the lack of equal opportunities, denial of freedom of association and collective bargaining, labour migrants)	No			Low
5.2 Could the project use or operate in a value chain where there have been reports of forced labour? (Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain)	No			Low
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?	No			Low
translation missing: en.v1.secap_screening_tool.environmental_and_social.labour_and_working_conditions_4.text	Yes	Likely	Minor The project operates in a sector, area, or value chain where workers are occasionally exposed to significant OSH risks, and where regulation is known to be effective.	Moderate
Community Health, Safety and Security	Yes/No	Likelihood	Consequence	Risk Rating
6.1 Could the project be at risk from water-borne or other vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	No			Low
6.2 Could the project lead to unintended negative impacts on nutrition?	No			Low
6.3 Is there a possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	Yes	Unlikely	Moderate The project has significant reliance on buildings or infrastructure. Risk of failure is unlikely to lead to loss of life or significant environmental damage. The structural integrity of the required infrastructure has been independently verified.	Moderate
6.4 Could the project involve or lead to the construction or rehabilitation of dams?	No			Low
6.5 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	Yes	Possible	Minor The project has only minor involvement with the transport, storage, and use and/or disposal of hazardous or dangerous materials, and regulation of hazardous materials is effective.	Moderate
6.6 Could the project lead to adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No			Low
6.7 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	No			Low

Environmental and Social Safeguards				
6.8 Could the project lead to increases in traffic or alteration in traffic flow?	Yes	Possible	Moderate Moderate changes to traffic volumes or alterations to traffic flow. Risk of injury or death is reduced by good design and implementation of safety protocols. New construction, rehabilitation or upgrade of rural roads, with Annual Average Daily Traffic (AADT) below 400	Moderate
6.9 Could the project lead to an influx of project workers?	Yes	Possible	Moderate The project is partly dependent on an influx of project workers, but the majority of workers are local. Risks of impacts have been planned for, and protocols are in place	Moderate
6.10 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	No			Low
Physical and economic resettlement	Yes/No	Likelihood	Consequence	Risk Rating
7.1 Could the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No			Low
7.2 Could the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	Yes	Likely	Minor Minor possible negative impact on either community assets or individual farmer assets.	Moderate
7.3 Could the project present a risk of forced evictions?	No			Low
7.4 Could the project result in impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	Yes	Likely	Minor The project will result in minor impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights. Legal recourse and other forms of arbitration/conflict resolution are available.	Moderate
Financial intermediaries and direct investments	Yes/No	Likelihood	Consequence	Risk Rating
8.1 Could the investment be granted to an institution that does not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	Yes	Possible	Moderate The institution does not have an ESMS in place, but several individual E&S policies. The policies are therefore not considered as transparent. The reporting on E&S is available upon request.	Moderate
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	Yes	Possible	Moderate The institution does not employ an ES Officer, but has sufficiently trained field staff available to monitor the impact of the operations of the institution.	Moderate
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low

Environmental and Social Safeguards				
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Is there evidence that the institution does not comply with the local legal framework?	No			Low
8.6 Does the institution provide a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	Yes	Unlikely	Minor Communities and stakeholders can contact the institution and a process is in place for institutionalizing the communication channels (e.g. complaint-management system) and training staff accordingly.	Low
8.7 Does the organization provide auxiliary or capacity building support services.	No			Low

Climate Risk Classification: Low

Step 1: Hazard identification	
What are the expected hazards in the project intervention area?	No, Yes, TBD
River flood	Yes
Costal Flood	No
Urban Flood	Yes
Landslide	Yes
Cyclone	No
Water Scarcity (agricultural droughts and/or dry spells)	Yes
Extreme Heat	Yes
Wildfires	Yes
Future climate scenarios foreseen (period 2040-2059) - Change in frequency and intensity	No, Yes, TBD
Change in temperature (increase or decrease)	Yes
Change in rainfall (increase or decrease)	Yes
Climate variability (larger or smaller)	Yes
Intensity and frequency of extreme events (larger or smaller)	Yes
Is the project expected to have an impact on climate change (i.e. contribute to greenhouse gas emissions)?	No, Yes, TBD
Is the project expected to be a significant emitter of greenhouse gases?	No
Step 2: Exposure Assessment	
Is the project located in exposed areas to weather-related natural hazards?	No, Yes, TBD
Low-lying areas (valleys, coastal zones, and small islands)	No
Very warm areas (subtropical)	Yes
Tropical areas (rainforests)	No
Arid and semi-arid areas (deserts)	No
Mountains zones and permafrost areas (tundra)	Yes
River banks	No
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?	No, Yes, TBD
Is crop production frequently affected by rainfall variability, prolonged droughts, changes in temperature or pests and diseases?	Yes
Is livestock productivity frequently affected by rainfall variability, prolonged droughts, changes in temperature or diseases?	No
Are fisheries frequently affected by ocean acidification, water salinity and changes in sea surface temperature due to ocean-atmospheric oscillations or climate change?	No
Is forest productivity frequently affected by wildfires, diseases, rainfall variability, prolonged droughts, or changes in temperature?	Yes
Is the biodiversity in the project area likely to be affected by changes in climate variables?	Yes
Is any stage of the agricultural value chain (production, storage, processing and marketing) exposed to climate related hazards?	Yes
Is any rural infrastructure likely to be affected by flooding, landslides, changes in temperatures, and extreme winds.	TBD
Step 3: Sensitivity Assessment	
What are key sensitivities for the populations in the project's areas of intervention?	No, Yes, TBD
Is conflict exacerbating the population's sensitivity to weather related hazards?	No
Is population displacement being exacerbated by climate change impacts?	No

Are diseases (e.g. COVID-19, malaria, cholera) increasing the population's vulnerability and affecting their capacity to address potential weather-related hazards?	No
Is the income of the target population predominately coming from agriculture?	No
Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?	No
Is the Human Development Index (HDI) equal to or below 0.6?	No
Is the Multidimensional Poverty Index (MPI) equal to or above 0.1?	No
Step 4: Adaptive capacity and climate resilience	
What are key adaptive capacities in the areas of project intervention?	No, Yes, TBD
Is the country well ranked in the Disaster risk reduction progress score?	Yes
Are climate and weather information services (real-time weather data, seasonal forecasts etc.) effectively being delivered (through radio, TV, SMS, extension services etc.) to farmers, rural dwellers, and end users?	Yes
Does the project country have an early action plan (preparedness and emergency response) to mitigate the impacts of weather-related hazards once the shock occurs?	Yes
Does the government or other institutions support the target population/communities with the necessary social and economic resources to prepare for or respond to climate-related events?	Yes
Is the target community carrying out (using their own means) agricultural adaptation?	Yes
Does the target population have the economic means or support to adjust or adapt their activities in response to weather related shocks?	No
Do policies/mechanisms exist that make financial credit, loans, and agricultural insurance available?	Yes
Are rural infrastructures effectively delivering services to farmers and rural dwellers?	No

China

Hunan Green Development Project

Project Design Report

Annex 6: First Annual Work Plan and Budget (AWPB)

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

内容	单位Unit	数量Qty	单价(元) unit price (Yuan)	Total Project Budget	Annual investment plan Y1
				(US\$ 1,000)	(US\$ 1,000)
合计					37 085
1.0	Component 1 (Production) / 生产基础部分(一产)			135 278	13 787
1.1	Production plans / 制定生产规划	项 Plan	7	300 000	288
1.2	Tree crops Management/ 基地建设	亩mu	199 500		10 941
1.2.1	Camelia Tea Oil /油茶经营		72 000		2 648
1.2.1.1	New Plantation/ 油茶新造	亩mu	27 500	3 491	1 435
1.2.1.2	Plantation Improvement/ 油茶中幼林抚育	亩mu	44 500	2 323	1 213
1.2.2	Bamboo/ 竹林经营		75 000		2 582
1.2.2.1	Bamboo Plantation Management for wood/ 毛竹材用林经营	亩mu	25 000	2 349	8 045
1.2.2.2	Bamboo Plantation Management for wood & Shoots / 毛竹笋材两用林经营	亩mu	50 000	2 830	19 382
1.2.3	Medicinal Herbs & Ferns/ 林下经济		52 500		5 373
1.2.3.1	Medicinal herbs & ferns management/ 黄精等林下种植	亩mu	52 500	7 132	51 292
1.2.4	Trainning on tree crops management/基地建设培训				3 381
1.2.4.1	Training in climate smart production techniques/基地建设生产培训	人次/per son. time s	27 391	450	3 381
1.3	Infrastructure/ 辅助工程				25 030
1.3.1	Roads & Tracks / 道路设施				14 396
1.3.1.1	Production Paths/ 作业道	千米km	657	20 000	1 719
1.3.1.3	Ungraveled Bamboo plantation roads / 林区道路(竹林道)(不铺碎石)	千米km	50	60 000	392
1.3.1.3	Graveled road Bamboo plantation/ 林区道路(竹林道)(铺碎石)	千米km	365	300 000	12 284
1.3.2	Irrigation /灌溉设施				7 425
1.3.2.1	Fertifation system/ 水肥一体化系统	亩mu	12 700	3 000	4 984
1.3.2.2	Water Pound/ 蓄水池	立方米m3	3 300	600	259
1.3.2.3	Pipe/输水管道	千米km	330	20 000	994
1.3.2.4	Canal/渠道	千米km	101	75 000	402
1.3.2.5	Pump Station/泵站	座No.	20	300 000	785
1.3.3	Field Management Facility				2 182
1.3.3.1	Maintenance Room/管护用房	平方米m2	4 650	2 500	1 592
1.3.3.2	Storage roon/ 生产库房	平方米m2	2 150	2 000	589
1.3.6	Operations and Maintenance/运行与维护				1 028
1.3.6.1	Operations and Maintenance/运行与维护				
1.4	Carbon sink/碳汇				547
1.4.1	Carbon sink monitoring/碳汇监测	亩mu	147 000	5	97
1.4.2	Carbon accounting/ 碳汇核算	亩mu	147 000	2	39
1.4.3	Carbon footprint/ 碳标签、碳足迹	项mu	2	1 000 000	411

内容	单位Unit	数量Qty	单价(元) unit price (Yuan)	Total Project Budget	Annual investment plan Y1
				(US\$ 1,000)	(US\$ 1,000)
合计					37 085
2.0	Component 2 (Processing) 加工增值部分 (二产)	LS		92 807	21 471
2.1	Business Plans / 制定商业规划	项LS	7	1 808	1 808
2.2	Productive infrastructure/ 生产性基础设施	LS		84 807	19 320
2.2.1	Primary Processing/ 初级加工能力提升			12 068	2 123
2.2.1.1	Primary processing enhancement Oil Tea/ 油茶初级加工能力提升			9 315	1 267
2.2.1.2	Primary processing enhancement medicinal herbs/ 中药材初级加工能力提升			2 753	856
2.2.2	Enhanced processing capabilities of enterprises/ 企业加工能力增强			17 933	4 370
2.2.2.1	Enhanced processing capacity of oil tea enterprises / 油茶企业加工能力提升			13 385	3 699
2.2.2.2	Enhanced processing capacity of Bamboo Shoots and Wood / 笋竹企业加工能力提升			2 219	671
2.2.2.3	Enhanced processing capacity of Chinese herbal medicine enterprises / 中药材企业加工能力提升			2 329	-
2.2.3	Entreprise Parks/ 产业加工园区建设			54 805	12 827
2.2.3.1	Oil Tea Entreprise Park/ 油茶产业园区建设			945	644
2.2.3.2	Bamboo Entreprise Park/ 竹产业加工园区建设			36 477	8 092
2.2.3.3	Chinese Medicine Entreprise Park/ 中药材加工园区建设			17 384	4 091
2.3	Product Development and Marketing / 产品开发与市场营销	Ls		6 192	342
2.3.1	Integrated development of camellia oleifera and its three industries/ 油茶三产融合发展			4 247	-
	Oil tea Science Hall	平方米	3 000	3 000	1 233
	Oil tea sightseeing garden (including sight	平方米	10 000	1 200	1 644
	Scenic landscape building	项	1	10 000 000	1 370
2.3.2	Bamboo Science Education/ 竹科普宣教展示			1 644	342
	Exhibition Center/ 展览展示中心	平方米	4 000	3 000	1 644
2.3.3	Herbal Medecine Education/ 林业特色产品营销			301	-
	Exhibition Center/ 展览展示中心	平方米	250	800	27
	E commerce Platform	个	1	2 000 000	274
3.0	Project management/ 项目管理 (sheet C 3 sheet for details)			7 115	1 827
TOTAL				235 200	37 085

China

**Hunan Green Development Project
Project Design Report**

Annex 7: Procurement Plan for first 18 months

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 7: Procurement Plan for first 18 months

AWPB/Component Ref AWPB/ 部件编号	No 序号	Description 描述	Funding 资金来源	Project Area or Procuring Entity 项目地点或 采购实体	Prior or Post Review 前 审或后审	Procurement Method 采购方式	Envelopes 信封	Budget (CNY' 000) 金额（人民币 万元）	Potential Start Date
货物 Goods									
	1	Office Equipment Component 3	IFAD	PPMO	Post Review	RFQ	1	148.75	17 Sept 2024
	2	Office Equipment Component 3	IFAD	CPMO-Hengshang County	Post Review	RFQ	1	148.75	17 Sept 2024
	3	Office Equipment Component 3	IFAD	CPMO-Pingjiang County	Post Review	RFQ	1	148.75	17 Sept 2024
	4	Office Equipment Component 3	IFAD	CPMO-Yuanliang County	Post Review	RFQ	1	148.75	17 Sept 2024
	5	Office Equipment Component 3	IFAD	CPMO-Heshan County	Post Review	RFQ	1	148.75	17 Sept 2024
	6	Office Equipment Component 3	IFAD	CPMO-Xupu County	Post Review	RFQ	1	148.75	17 Sept 2024

AWPB/Component Ref AWPB/ 部件编号	No 序号	Description 描述	Funding 资金来源	Project Area or Procuring Entity 项目地点或采购实体	Prior or Post Review 前审或后审	Procurement Method 采购方式	Envelopes 信封	Budget (CNY' 000) 金额 (人民币万元)	Potential Start Date
	7	Office Equipment Component 3	IFAD	CPMO-Taojiang County	Post Review	RFQ	1	148.75	17 Sept 2024
	8	Office Equipment Component 3	IFAD	CPMO-Yangling County	Post Review	RFQ	1	148.75	17 Sept 2024
土建工程 Civil Works									
咨询服务 Consulting Services									
	1	制定生产规划 Make production planning	IFAD		Post Review	QCS	1	84.00	04 Oct 2024
	2	制定商业规划 Develop the business plan	IFAD		Post Review	QCBS	1	2100	15 Oct 2024
	3	能力建设培训 Capacity building trainings	IFAD		Post Review	CQS	1	70	03 Apr 2025

AWPB/Component Ref AWPB/部件编号	No 序号	Description 描述	Funding 资金来源	Project Area or Procuring Entity 项目地点或采购实体	Prior or Post Review 前审或后审	Procurement Method 采购方式	Envelopes 信封	Budget (CNY' 000) 金额 (人民币万元)	Potential Start Date
	4	Technical Studies	IFAD		Post Review	CQS/ICS	1	100	15 May 2025
	5	Knowledge document	IFAD		Post Review	CQS/ICS	1	100	18 May 2025
	6	技术专家 TA consultant	IFAD		Post Review	CQS/ICS	1	30	07 Nov 2024
	7	监测评价服务 M&E service	IFAD		Prior Review	QCBS	1	1000	11 Dec 2024
	8	基线调查 baseline survey	IFAD		Prior Review	CQS	1	600	23 Jan 2025
	9	信息管理系统 MIS system	IFAD		Prior Review	CQS	1	700	29 Jan 2025
	10	Carbon Sink Monitoring	IFAD		Prior Review	SSS	1	370	12 Mar 2024
	11	其它项目管理 Project management-others	IFAD		Prior Review	QCS	1	383.27	09 Dec 2024

Notes

1. Not inclusive of Business/Investment Proposals. Procurement packages for goods and civil works along with its procurement strategy would be developed when Business/Investment proposal are developed. These plans need to accommodate relevant stakeholder inputs and would be driven by stakeholder requirement. CDIC's will develop and submit the Business/Investment Proposal in consultation with stakeholders. All BP's and its Funding Agreement would be subject to IFAD Prior Review.
2. Carbon Sink Monitoring – SSS of State or National Institution with expertise.

China

Hunan Green Development Project

Project Design Report

Annex 8: Project Implementation Manual (PIM)

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 8: Project Implementation Manual (PIM)

Hunan Green Development Project

People's Republic of China

PIM Table of Content

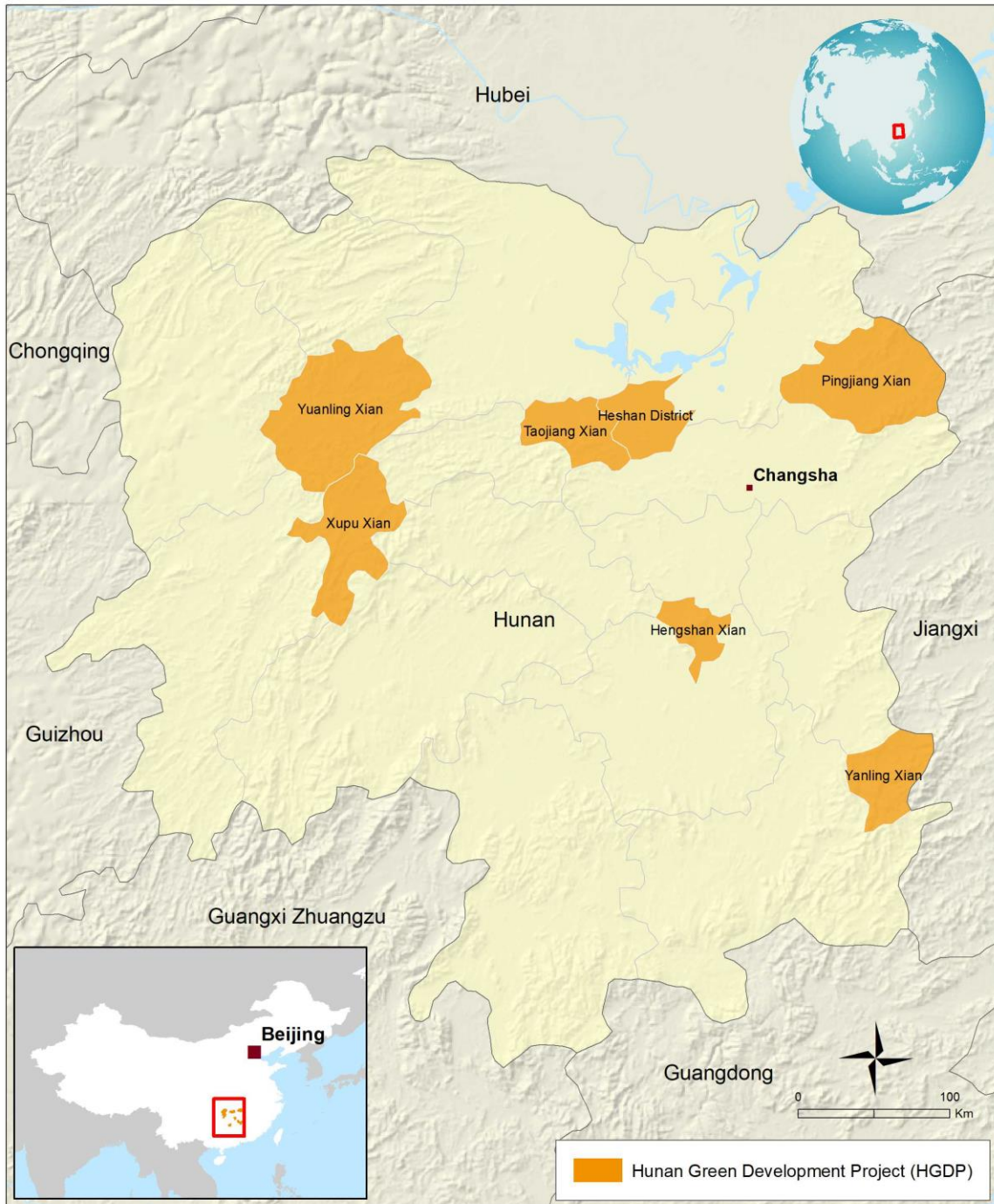
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Abbreviations and Acronyms

4P	Public-Private-Producer Partnership
ACWF	All-China Women's Federation
ADB	Asian Development Bank
AWPB	Annual Workplan & Budget
BRAM	Borrowed Resources Access Mechanism
CCER	China Certified Emission Reduction
CDIC	Community Development Investment Company
CFB	County Forestry Bureau
CO2	Carbon Dioxide
COSOP	Country Strategic Opportunities Programme
CPE	Country Programme Evaluation
CPMO	County Project Management Office
DA	Designated Account
DOF	Department of Finance
EFA	Economic and Financial Analysis
ESCMP	Environmental, Social and Climate Management Plan
ESMS	Environmental and social management system
FAO	Food and Agriculture Organization
FPIC	Free Prior & Informed Consent
GDP	Gross Domestic Product
GPM	General Procurement Notice
H2RDP	Hunan Rural Revitalization Demonstration Project
HGDP	Hunan Green Development Project
IFAD	International Fund for Agricultural Development
INBAR	International Network for Bamboo and Rattan
IPPF	Indigenous People Planning Framework (IPPF)
IPRM	Integrated Project Risk Matrix (IPRM)
M&E	Monitoring & Evaluation
MRV	Measurement Reporting and Verification
NDC	Nationally Determined Contribution
NDRC	National Development and Reform Commission
PFD	Provincial Forestry Department
PFSS	Provincial Forestry Fund Station
PIM	Project Implementation Manual
PP	Procurement Plan
PPMO	Provincial Project Management Office
PPP	Purchasing Power Parity
PPS	Project Procurement Strategy
PRC	People's Republic of China
RIA	Research and Impact Assessment
SECAP	Social Environmental & Climate Assessment Review Note
SOFR	Secured Overnight Financing Rate
TOC	Theory of Change
UMIC	Upper Middle-Income Country
VIG	Village Implementation Groups

Map of project areas



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 07-11-2023

Foreword

This draft Project Implementation Manual has been produced as an aide for the project implementing agencies.

These are both to be read in conjunction with the Project Design Report and its associated annexes. The Provincial Forestry Department and the County Forestry Bureaus shall expand and further elaborate these during implementation to suit their needs for implementation guidance.

The Project Implementation Manual should serve as a living document, subject to revisions and updates as necessary. The manual and its revisions are subject to IFAD's No Objection before disseminated to the project stakeholders and put into use.

Chapter 1 Project Summary and Key Strategies

1. Introduction

At the request of the Government of the People's Republic of China, the International Fund for Agriculture Developed designed a new project titled the Hunan Green Development Project (HGDP) in close coordination with the Provincial Forestry Department in the Hunan Province. Despite the transformation in the agriculture sector, China's production base still relies extensively on smallholder participation. However, the smallholders face constraints in increasing productivity and accessing markets due to the small size of their landholding, limited access to capital, poor productivity, high levels of vulnerability to climate risks and poor integration with markets. The current production practices are not well adapted to climate risks and lead to poor soil management practices, high losses due to inability to withstand the impact of droughts and other climate risks.

The total project cost is estimated to be USD 235 million over the six-year period. IFAD has been requested to provide a loan of USD 80 million. Private enterprises will provide the major share of funds estimated at around USD 112 million for investments in equipment and processing facilities, product diversification and market development. In addition, the County government through its relevant technical Bureaus would provide input subsidies and physical infrastructure investments in plantations targeted under the project. It is expected that the Government will provide USD 27 million in in-kind support and input subsidies. Smallholder beneficiaries are expected to provide USD 16 million as production costs for inputs, labour, etc.

The country has eradicated extreme levels of rural poverty, but consolidation and long-term sustainability of poverty achievements remain a high priority for the Government, as highlighted in the 14th Five-Year Plan 2021-2025. The project will contribute to sustain poverty achievements by preventing vulnerable people from falling back into poverty and ensuring that the on-going process of rural transformation and agricultural modernization is inclusive and financially and environmentally sustainable. The goal of the HGDP is to promote rural revitalization and enable smallholders to benefit from rural transformation through an enterprise sector led green growth model which is inclusive and environmentally sustainable.

The development objective of the project is to increase smallholders' capacity for enhanced production and productivity and access to markets, while optimizing environmental sustainability and climate resilience, by focusing on three selected value chains namely Bamboo, Oil-Tea Camelia and medicinal herbs in seven selected counties in the Hunan Province. The project will also capitalise on the opportunity to contribute to China's ambitious goal of achieving carbon neutrality by 2060 by supporting emission reductions and carbon sequestration through investments in agro-forestry and agri-food systems and putting in place a model for carbon measurement and accounting.

2. Geographic area of intervention and target groups

County Selection. The Hunan Green Development Project (HGDP) is expected to be a six-year project which will cover seven counties in the Hunan Province. The counties will include Taojiang, Hengshan, Yanling, Pingjiang, Heshan, Yuanling and Xupu. The counties have been selected on the basis of (i) strong willingness and commitment of County Government to participate in the project; (ii) financial capacity to incur and repay the debt from BRAM resources; (iii) high potential for the production of the selected high value commodities with strong outreach to smallholders; (iv) presence of private sector enterprises willing to invest in the selected value chains; (v) risk of continued vulnerability of the former poor households, especially in the former nationally designated poor counties

(four of seven counties -- Yanling, Pingjiang, Yuanling and Xupu) and alongside specific climate related risks.

Village selection. The project will continue the IFAD's core targeting approach in the country, by applying the ongoing geographic and inclusive targeting strategy in the selection of vulnerable and disadvantaged target groups. The criteria of project village selection will ensure the project targeting to the above-mentioned groups, (i) high potential for the production of the selected high value commodities with the largest potential for outreach to smallholders; (ii) high interests of selected enterprise to expanding the production; (iii) high potential for developing standard farmers' cooperative; (iv) the priority for the former poor village; (v) the priority for the village with the potential of developing women-led cooperative. Furthermore, the geographic targeting will ensure that selected villages and plantations are far from protected areas or ecological red zones.

Target Group selection. The project will mainly target former registered poor households under continued monitoring, and low-income households. The project will improve their integration in value chains whether they cultivate land or not as detailed in the engagement pathways (PDR Annex 16 and Figure below).

Smallholder farmer households in China have very small holdings with 90% of smallholders farm on less than 1 ha of land. On average, agriculture land holding in the counties varies between 0.72 mu to 1.5 mu¹ per person or an average of 0.93 per person or 2.47 mu per household. However, forest landholding in the counties varies between 0.73 mu to 14 mu per person or an average of approximately 5 mu per household. Table 2 below gives the land holding share of the main type of holdings in the project area. This shows that landholding by smallholders and those aggregated into cooperatives makes up 47% of the total holding and represent 72% of beneficiary households. Landholding held by private enterprise makes up 34% of the total holding and shall generate employment & waged work opportunity for 28% of beneficiary households. A majority of the direct beneficiaries of HGDP will be smallholders (72% of beneficiaries). There are three envisioned engagement pathways for project beneficiaries (see annex 16 for more details): 1. Smallholder engages with private sector (or state farm) directly or indirectly in self production; 2. Smallholder leases land to state or private enterprise farm and may also be contracted as labour and/or 3. Smallholders and poor rural households engage with private sector or state enterprise as wage earners only on productive land or in processing/marketing/logistics. Direct beneficiaries will also include those who benefit through increased sales. All will participate in the various training programmes for strengthening their technical skills and management capacity. The project will include cooperatives as a key institution for smallholder farmers and capitalize on their role as investor-owned enterprises or land-shareholding cooperatives which gives members an opportunity to earn wages, secure land rents or a share in the profits. The cooperative membership in the selected counties was reported at 55,885 households with an average membership of 23 households per cooperative. Only a small proportion of households (10%) reported being currently connected directly with enterprises. The type of beneficiaries and benefits are detailed in Annex 11 of the PDR.

¹ 15 Mu= 1 Ha

Figure 1: Rural Poor/Smallholders pathways for engagement

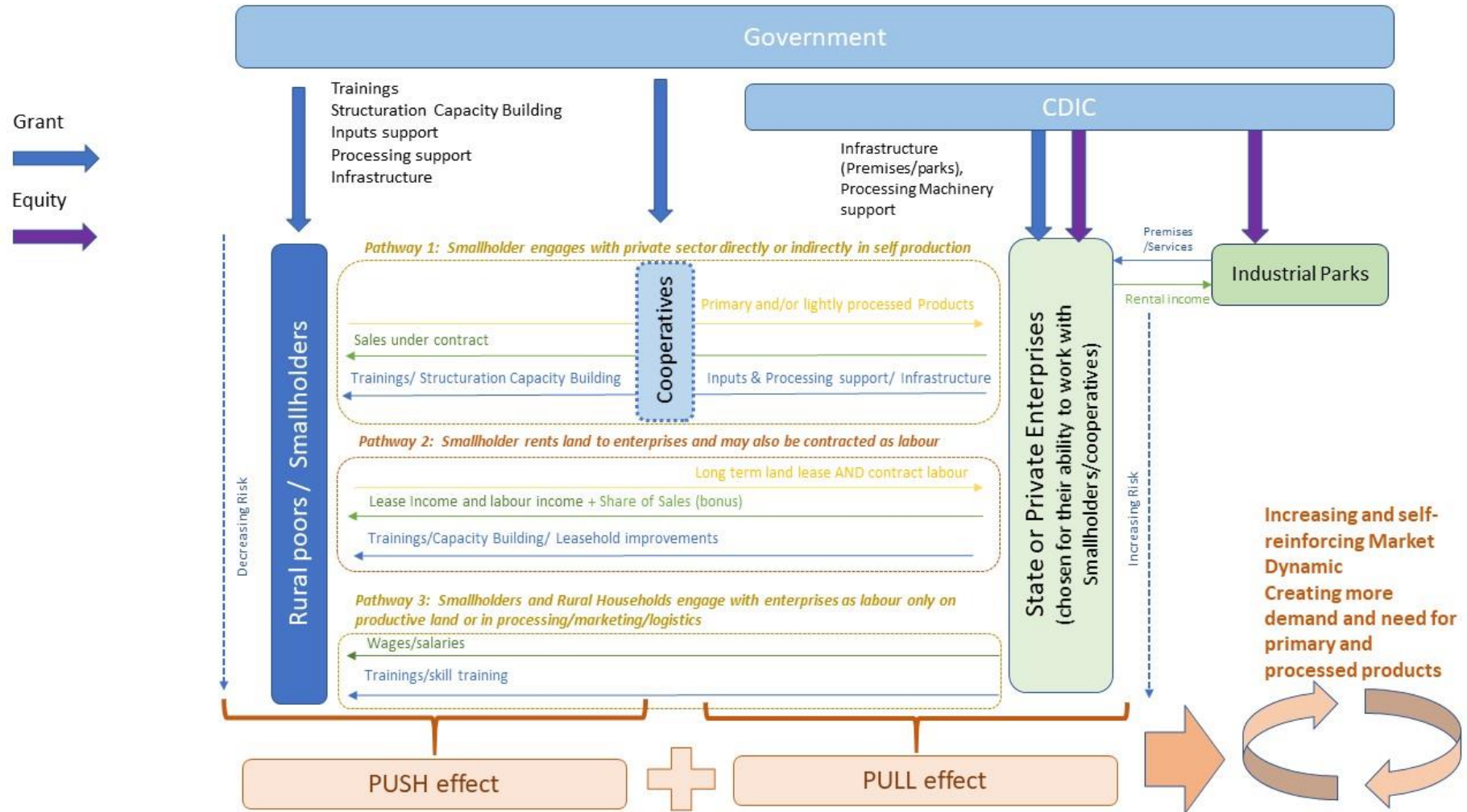


Table 1: Type of Production Model (land aggregation) at Stage of Design (mu)

	Area	(%)
State owned Forest Farm	11600	6%
Private enterprises	67200	34%
Ccooperatives	36350	18%
Individual Large Holders	26450	13%
Individual Small Holders	57900	29%
	199500	100%

Many of the smallholders have adopted a model of part-time management of agricultural production which allows them to alternate between farming in busy seasons with working in cities in slack seasons². Given the particular land ownership and use rights pattern in China, smallholders rent-out or rent-in land based on their livelihood strategies³. After the declared eradication of extreme poverty in February 2021, the government has redefined the focus support group in its state’s well-being register system as vulnerable smallholder farmer households, which constitute five categories; (i) households of subsistence allowance, (ii) households of marginal subsistence allowance, (iii) extremely difficulty households, (iv) former registered poor households under continued monitoring, and (v) low-income households. Typically, the first three categories lack active labour and they receive income support from the government. The vulnerable households will also form a key project target group. Most of the counties have largely been able to alleviate poverty with only 1.7% belonging to the population which is being monitored due to the potential risk of slipping back into poverty. Roughly half of the population in the counties are classified as active agricultural labour. The smallholders dominate the production of these three crops. While farming is a key source of income, households also rely on off-farm income. The cooperative membership in the selected counties was reported at 55,885 households with an average membership of 23 households per cooperative. Only a small proportion of households (10%) reported being connected directly with enterprises. The average net income per capita in the rural areas of the seven project counties was CNY 18,270, which is 93.5% and 90.8% of provincial and national level average incomes.

Gender and social inclusion (GSI). As detailed in Annex 15 of the PDR, Social inclusion of poor women, youth, and different ethnic groups will be a cross cutting theme across all components of the Project. The gender transformative goal of HGDP is to increase the socio-economic empowerment of rural women including young women while addressing unequal gender social norms. HGDP will pay particular attention to the empowerment of women by: (i) expanding their access to and control over resources; (ii) strengthening their agency, decision-making role in community affairs, and representation in local institutions; and (iii) building on their untapped potential for sustainable development, by recognizing their role as stewards of natural resources and biodiversity, and as bearers of rich traditional knowledge systems. **Youth empowerment** will be achieved via the following pathways: a) creating employment opportunities along the selected value-chains; b) tailored support to young men and women agri-entrepreneurs with access to business packages, including agri-entrepreneurship and enterprise related production training, access to special loans and mentorship; c) increasing youth participation in decision making in VIGs and rural enterprises. Rural enterprises involved in the HGDP will be required to offer opportunities to young men and women for employment.

² Ibid, Mat, 2022.

³ Agricultural land belongs to the state. Farmers have been given land-use rights but not ownership, and therefore cannot sell their land or use it for collateral, thus limiting their forms of investment/use

Chapter 2: Project Component and Implementing Arrangements

I. Components/outcomes and activities

The project has three components; Component 1: Smallholder Integration in Value Chains; Component 2: Enterprise Led Business Development and Component 3: Project Management & Capacity Building. Component 1 focuses on supporting production aspects and linking farmers with corporate entity through inclusive business plans. Component 2 in return invests in the upstream part of the value chain to consolidate the inclusive partnerships initiated with the private sector and to ensure that the increased production can be stored, processed and properly marketed to generate further income. Component 3 will support the 2 other components by providing capacity building and overall project management. Together, such investments will achieve the following main outcomes in terms of (i) Increased production and Productivity; (ii) Climate Adaptation & Enhanced CO₂ sequestration and (iii) Increased market share & value addition. These outcomes will lead to higher level impacts in terms of increase in incomes, increased empowerment of women, increased revenue and increased employment of women and youth. The components together with the key activities are described below.

Component 1: Smallholder Integration in Value Chains

The component 1 includes four sub-components: 1) Developing Inclusive & Sustainable Production Management Plans; 2) Implementation of Sustainable & Climate Smart Management Practices; 3) Key Infrastructure Investments for cultivating the selected high value chain crops; and 4) Enhancing Carbon Sequestration and Monitoring & Accounting.

The main outputs that will be produced under this component include (i) Inclusive & sustainable production management plans; (ii) Increased area under sustainable & climate smart management practices; (iii) Key infrastructures for cultivating the selected high value chain crops; (iv) Enhanced carbon sequestration through improved management of the crops.

Implementation Strategy: The overall responsibility for the implementation of this component will be with the County Government, particularly the Forestry Bureau, who will take the lead in partnership with the County Development Investment Company (CDIC), the state-owned forest farm, the Cooperatives and the private enterprises. The Project will facilitate the integration of smallholder farmers into the selected value chain through a range of business models that enable the smallholder farmers to receive technical support and inputs provision for sustainably improving the productivity of their existing lands and find markets for their produce through direct partnership and contractual arrangements with private enterprises. A variety of standard and innovative models are being practised in all three value chains in which the smallholders have made arrangements through their cooperatives or villages with small enterprises under which they either rent their land or invest in shares with enterprises and in turn receive inputs and technical support and a ready buyer for their produce. The Project will further strengthen these arrangements for the mutual benefit of small-holders and enterprises. These arrangements are expected to enhance productivity and incomes, to lead to employment generation, economic revitalization as well as both climate and biodiversity benefits.

Sub-Component 1.1: Developing Inclusive & Sustainable Production Management Plans

This sub-component will assess the potential for the production and marketing of each of the selected value chain crops, the potential for smallholder participation with particular focus on women and youth, and the smallholder cooperatives willing to collaborate with an assessment of capacity. Afterwards an overall plan at provincial level will be jointly developed with 7 plans for the inclusive and sustainable management of the selected value chain commodity in the county ensuring engagement and free and prior informed consent

of village committees and reviewing climate and environmental issues..

Activities: Major activities under sub-component 1.1 include: (i) Identify the CDIC, private and public enterprises willing to partner with HGDP; (ii) Assess the potential for smallholder participation with particular focus on women and youth, ensuring engagement and free and prior informed consent of village committees; (iii) Assess smallholder cooperatives willing to collaborate with an assessment of capacity and training plan especially with women in leadership positions; (iv) Jointly develop an overall plan at provincial level with 7 plans for the inclusive and sustainable management of the selected value chain commodity in the county, ensuring that climate and environmental issues and targets for outreach to beneficiary groups including women and youth targets are taken into consideration; and (v) Negotiate agreement with clear Terms of Partnership between all key partners for value chain development.

The main outputs that will be produced under this sub-component include: (i) an overall plan approved at provincial level with 7 plans for the inclusive and sustainable management of the selected value chain commodity in the county; (ii) Preliminary outreach targets with 50% women and 30% youth; (iii) List of cooperatives willing to collaborate with assessment of capacity and training for sustainable plantation management plan with 50% women leaders; and (iv) Signed agreements with clear Terms of Partnership between all key partners for value chain development respecting socio-environmental safeguards.

Implementation Strategy: Under this sub-component the Provincial Forestry Department, County Government, particularly the Forestry Bureau has identified, pre-screened and evaluated the CDIC, private and public enterprises willing to partner with HGDP and formulated the list of partners as the operating entities (table 2). The willingness of the smallholders, the cooperatives, village collectives, public or private enterprises to participate in the project has also been pre-assessed by the Forestry Bureau and will be finalized during implementation (table 3).

Table 2: Project counties and entities

County	Operating Entities	Land area (mu)	Forest land area (mu)	High forest area (mu)	Bamboo area (mu)	Camelia plantation area (mu)
Yanling	Qingshigang State-owned Forest Farm	3 044 653	2 642 263	2 024 527	382 527	45 120
Hengshan	Hengshan County Urban and Rural Construction Investment Co., Ltd	1 402 417	792 596	423 067	201 951	100 990
Pingjiang	Pingjiang County Mijiang Yuanshan Tea Oil Co., Ltd. and Hunan Shanrun Oil Tea Technology Development Co., Ltd	6 171 708	4 259 363	3 271 277	518 642	504 342
Heshan	Heshan District Shanxiang Jubian Agricultural Development Co., Ltd	1 918 033	663 130	311 040	269 508	43 437
Taojiang	Taojiang County Zhuxiang State owned Assets Operation Co., Ltd	3 102 225	1 933 373	723 469	1 147 955	13 870
Yuanling	Yuanling County Forest Resources Collection and Storage Co., Ltd	8 749 327	7 339 802	6 067 835	142 024	40 095
Xupu	Xupu County Xingxiang Forestry Co., Ltd	5 143 580	3 697 192	2 788 492	162 313	179 720
Total		29 531 943	21 327 719	15 609 706	2 824 920	927 574

Table 3: Engaged land area under the Project and its ownership in each county

County	Sub-total of project area		State-owned forest farm		Private enterprises		Cooperatives		Individual Large-holders		Individual Small-holders	
	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)
Yanling	29 000	100%	11600	40.00%	8 700	30%	4 350	15.00%	1 450	5%	2 900	10.0%
Hengshan	20 000	100%	-	-	4 000	20%	8 000	40.00%	5 000	25%	3 000	15.0%
Pingjiang	10 000	100%	-	-	10 000	100%	-	-	-	-	-	-
Heshan	30 000	100%	-	-	9 000	30%	9 000	30.00%	6 000	20%	6 000	20.0%
Taojiang	40 000	100%	-	-	-	-	-	-	4 000	10%	36 000	90.0%
Yuanling	50 000	100%	-	-	15 000	30%	15 000	30.00%	10 000	20%	10 000	20.0%
Xupu	20 500	100%	-	-	20 500	100%	-	-	-	-	-	-
Total	199 500	100%	11600	5.81%	67 200	34%	36 350	18.22%	26 450	13%	57 900	29.0%

The private enterprises are in the process of undertaking detailed market analysis and feasibility assessments and finalizing their plans for expansion of the production base in collaboration with the Forestry Bureau, cooperatives and village collectives. The Forestry Bureau has provided a preliminary assessment of the area under each of the selected value chain crops, the area that needs rehabilitation, potential area for expansion and the technical, social, and environmental factors what will determine the choice of area (table

3). The assessment will also include scope of gender social norms to determine and maximize the extent of women participation and their roles within the selected value chains, especially young women and women from ethnic minorities.

Table 4: Planned area of selected value chain crops in each county (Unit: mu)

County	Value chain crops			Total
	Bamboo forest	Camelia plantation	Medicinal plants	
Yanling	5 000	-	24 000	29 000
Hengshan	-	20 000	-	20 000
Pingjiang	-	10 000	-	10 000
Heshan	30 000	-	-	30 000
Taojiang	40 000	-	-	40 000
Yuanling	-	42 000	8 000	50 000
Xupu	-	-	20 500	20 500
Total	75 000	72 000	52 500	199 500

The Forest Bureau at provincial and county levels and the private enterprises will jointly develop an overall plan at provincial level with 7 plans for the inclusive and sustainable management of the plantations of the three value chain commodities ensuring that socio-environmental safeguards are included. The County Forestry Bureau will also undertake an assessment of the cooperatives in the area and the number of smallholders involved in the production or with the potential to undertake the production of the selected high value chain crops, adequate considerations will be given to Inclusiveness of IFAD target groups including women and ethnic minorities. The capacity of the cooperatives will also be assessed under this sub-component and the need for their strengthening determined with a plan for capacity building and technical support linked to sustainable plantation management. An agreement will be negotiated between the cooperatives and the enterprises to enter a partnership for value chain development. The Project Management Office (PMO) will be responsible for monitoring and overseeing that the terms of this agreement are upheld.

Sub-Component 1.2: Implementation of Sustainable & Climate Smart Management Practices

The Production Management Plans will include well established management practices which can help to enhance the climate resilience and productivity of the three selected crops without additional chemical use and mitigating any biodiversity risks. This sub-component will implement five technical models for growing these crops are planned in the selected counties including: (i) improved management of bamboo timber forest; (ii) improved management of bamboo shoot and timber dual-use forest; (iii) planting of *Camellia oleifera*; (iv) improved management of existing *Camellia oleifera* plantations; (v) cultivating of Chinese medicinal plants.

Activities: Major activities under sub-component 1.2 include: (i) Provide enhanced inputs (seedlings, saplings, organic fertilizer/ manure, etc.) to smallholders; (ii) Develop & Implement training plans on sustainable & climate smart management practices on plantations of the three value chain commodities; (iii) Conduct sustainable & climate smart management practices of the three value chain crops; (iv) Survey and monitor the management practices with five technical models in the project area and compare to the baseline in the region; (v) Engage the smallholders in sustainable & climate smart management practices; (vi) Regularly monitor the field demonstrations for the proper management of the plantations and adaptive techniques to protect against droughts, soil conservation, etc; (vii) Support access to meteorological and secondary disasters warnings and information including rainstorm, high temperature, drought, landslide, debris flow, forest fire, etc.

The main outputs that will be produced under this sub-component include: (i) Smallholders trained in enhanced climate resilient adaptation practices with focus on women and youth; (ii) Increased area under sustainable & climate smart management practices of the three value chain crops with participation of smallholders and women; (iii) Five technical models of the three value chain crops for demonstration and knowledge sharing, including improved management of bamboo timber forest, improved management of bamboo shoot and timber dual-use forest, planting of *Camellia oleifera*, improved management of existing *Camellia oleifera* plantations and cultivating of Chinese medicinal plants (table 4); (iv) Three innovative models of engaging the smallholders in production with increased diversified incomes in return; and (v) Field demonstrations for the proper management of the plantations and adaptive techniques.

Table 5: Planned area with five technical models of selected value chain crops (Unit: mu)

County	Technical models of selected value chain crops					Total
	Improved management of bamboo timber forest	Improved management of bamboo shoot and timber dual-use forest	Planting of <i>Camellia oleifera</i>	Improved management of existing <i>Camellia oleifera</i> plantations	Cultivating of Chinese medicinal plants	
Yanling	-	5000	-	-	24000	29000
Hengshan	-	-	5500	14500	-	20000
Pingjiang	-	-	5000	5000	-	10000
Heshan	25000	5000	-	-	-	30000
Taojiang	-	40000	-	-	-	40000
Yuanling	-	-	17000	25000	8000	50000
Xupu	-	-	-	-	20500	20500
Total	25000	50000	27500	44500	52500	199500

Implementation Strategy: The Provincial Forestry Department, County Government, particularly the Forestry Bureau are playing a major role in promoting the well-established management practices. The extension officers from all levels will work to provide to smallholders technical trainings, field demonstrations, regular monitoring visits and exposure visits for the proper management of the plantations and adaptation techniques to protect against droughts, extreme temperature, fluctuating rainfall pattern, as well as to do proper soil conservation, input application, irrigation, fertigation, planting spacing, tending, pruning, harvesting, etc.

The leading role in conducting sustainable & climate smart management practices of the three value chain crops will be initially with the CDIC, public or private enterprise & Cooperatives, and smallholders. The innovative models of engaging the smallholders in production of three selected crops are where smallholders can (i) invest on their land with contracted minimum purchase price for their produce with enterprises; (ii) rent their land or invest in enterprises' shares and in turn receive inputs and technical supports from the enterprises and a ready buyer for their produce through their cooperatives or village collectives; (iii) work on the production base of enterprises as on-farm wage labor. In these ways, the smallholders benefit directly from increased income by selling of produce, renting land or dividends through shares in production, on-farm wage, and improved productivity and quality through receiving trainings on climate smart production techniques, provision of improved inputs for production such as seeds, saplings, fertilizer and etc.

The Provincial Forestry Department, along with the County Forestry Bureau will monitor regularly the field demonstrations for the proper management of the plantations and

adaptive techniques to protect against droughts, soil conservation, etc. The Bureau of Meteorology together with County Government will warn the meteorological and secondary disasters including rainstorm, high temperature, drought, landslide, debris flow, forest fire etc. In case of disasters, the forestry insurance with policy support at provincial and county levels will be implemented in Project area with insurance compensation which benefits directly the smallholders.

Sub-Component 1.3: Key Infrastructure Investments for cultivating the selected high value chain crops.

This subcomponent will address some of the major deficiencies in the infrastructure system of the project area that may limit or constrain the implementation of the proposed project activities, including access to ensure accessibility within the plantation area and climate-resistant irrigation systems that help reduce vulnerability to climate change. Each Production Management Plan will detail the type of infrastructure needed for the different production zones. It will be key to ensure that the national laws of China are respected in terms of socio-environmental safeguards at all stages of development: as part of business planning, procurement, building and running of the infrastructures.

Strategy and Approach

The following strategies and approaches were considered and adopted in project design: (i) comprehensive strategy, through combination of physical, institutional and technical options; (ii) integrated approach, to integrate infrastructure options with forest crop options and inclusive rural development; (iii) climate-smart approach, to mainstream climate change adaptation and mitigation into infrastructure system planning, engineering design and operation and management; (iv) participatory approach, through establishing and strengthening infrastructure management organizations to better involve beneficiary farmers into infrastructure planning, design, construction and O&M; and (v) building partnership with government initiatives, through completing with on-going and planned government investment strategies and programs.

This sub-component will address some of the major deficiencies in the infrastructure system of the project area that may limit or constrain the production in the 3 value chains, supporting public and private infrastructure, including passageways for ensuring accessibility within the plantations, and climate-resistant irrigation systems that help reduce vulnerability to climate change.

The main activities of this sub-component include:

Activity 1.3.1 Development of pathways and roads for production

The project area lacks adequate roads for production, including for bamboo and camellia oil. This activity will support the development of production roads (or passageways) and vehicle-accessible roads within the plantations to serve rural farmers and enterprises (both state-owned and private). This activity would support development of 657 km production pathways (width 1.5m) and 415 km vehicle-accessible roads (width 3.5m). Approximate average daily traffic is less than 10 for vehicle-accessible roads. The longest section is less than 6km long.

Total cost of this activity will be shared by Government co financing and enterprise self-financing.

The construction of traffic lanes will be under the guidance of the Transportation Bureau, and the route selection and design will be carried out by a qualified professional design team according to the national traffic lane standards (Design Specifications for Low Volume Rural Roads, JTG/T 3311-202, Ministry of Transport of the People's Republic of China), and by a professional construction team. Environmental impact assessment is carried out to minimize the ecological impact. Land expropriated for the construction of traffic roads, if it is the land of individuals or enterprises, will be with the consent of the landowner, and

will be given land compensation fees in accordance with the Regulations on the Implementation of the Land Administration Law of the People's Republic of China (Standing Committee of the National People's Congress, Order of the President No. 32, 2020-01-01). Ownership of the on-forest farm roads improved under the project will be to a user committee including the beneficiary villages (Cooperative organization), farmers and enterprises, who will be responsible for O&M of these road systems with continuous technical and financial supports from government transportation department.

Activity 1.3.2 Development of Irrigation system

This activity will support the improvement and development of irrigation water supply systems, including the development of ponds, pumping stations, canals and pressure pipes. Pipe irrigation system, which necessitates less investment and is easy to use, will be used for bamboo shoots, Chinese medicinal materials and camellia forest land. Demonstration experiment of drip fertigation will be carried out in camellia oil plantation. These interventions would help improve productivity, climate resilience and increase farmer income.

This activity would support the development of a total of 12,700 mu drip fertigation system, 3300 m³ water pond, 330 km pressure pipelines, 101 km canals, 20 small pumping stations. Maximum size of irrigation system will be 200 ha and fertigation system pilot will be around 30 ha. These interventions would contribute to forestry industry development in the project area, through enhancing forest productivity, diversification and climate resilience.

The area of irrigation by reservoir and pipeline is 199,500 mu, and 12,700 mu of integrated water and fertilizer area will be developed. Since the project area is mountainous and hilly, a single irrigation system is generally less than 500 acres / 200 ha. There are three kinds of irrigation water sources, one is a small spring on the mountain, the second is a river near the project area, and the third is a small reservoir near the project area. Due to the small irrigation area, the pump flow is only 20-100 m³ / h, so the impact on reservoir and river flow is negligible. There won't be canals within plantations but only to bring water from reservoirs to the plantation.

Ownership of the irrigation systems and the water source facilities improved and developed under the project will belong to the beneficiary villages, water users' associations or farmers' cooperatives depending on the decision made by respective county project management offices during the project implementation, based on the size and benefiting scope of the systems. Improved and developed irrigation systems will be handed over to the identified owners at the completion of construction, who will be responsible for O&M of the systems. During the course of the project, the government will be required to contribute to the maintenance of the project infrastructure using government matching funds. After the completion of the project, continuous technical and financial support is required from government departments and relevant irrigation management agencies.

The O&M associations/group like WUAs in areas of water scarcity will be trained in adaptive water management for water use efficiency under different climate conditions and supported in the installment of a network of digital water meters in strategic places in the irrigation system and in the design of an instant water flow data registration and analysis system. The data on water flows will be combined with collected data influencing crop water needs, crops and varieties cultivated in the various fields, their yields and type of irrigation equipment used. This will allow for monitoring and analyzing water productivity and water use efficiency throughout the irrigation system and for implementing improved and adaptive water management and use efficiency.

Activity 1.3.3 Development of field management facility

The project area lack field management facility for production, including office and management housing, warehouse for storing inputs, and other means of production. This activity will support the development of field management facility within the plantations to serve rural production for farmers and enterprises (both state-owned and private).

This activity would support development of management housing and warehouses. These facilities are spread across several sites in the project area in seven counties and will respectively cover in total 4650 m² and 2150 m² knowing that each facility will not be larger than 100/150m² each.

The selection of the location of the warehouse should meet the requirements of GB/T 42958-2023 & GB/T 8321.10-2018 "Instructions for the Use of Inputs". The warehouse should be far away from water sources and residential areas, should be built in a place with high terrain and no water, should be equipped with fire equipment and first aid medicine boxes, should have good ventilation conditions and install lighting system.

Ownership of the in-forest farm house and warehouse improved under the project will belong to a user committee including the beneficiary villages (Cooperative organization), famers and enterprises, who will be responsible for O&M of these facility.

Activity 1.3.4: Support to infrastructure O&M Cost

Public infrastructure systems need relevant institutional arrangement, proper mechanism and suitable capacity for sustainable O&M after completion of construction. This activity would support to strengthening of O&M organizations, including cooperative, water users' associations and other infrastructure management groups, through procurement of office furniture and equipment, and organization training on infrastructure O&M for management groups and beneficiary farmers.

More details (including detailed budget) are given in the Annex 13 on Infrastructures in the PDR

Sub-Component 1.4: Enhancing Carbon Sequestration and Monitoring & Accounting

The project will, through improved climate smart management of the plantations, increase carbon sequestration potential. A model will be developed under this sub-component for proper monitoring and accounting of carbon uptakes and emissions of the selected high value chain development. Carbon monitoring on the selected plots with both improved management and management as usual will be conducted for bamboo and Camellia plantations so as to measure the additionality of carbon sequestration, which will provide good base for carbon accounting and promoting carbon methodologies (and potential trading in the medium to long term) for improved forest management.

Rationale: The bamboo plant absorbs significant amounts of carbon because of its rapid growth. The Camellia plantations also play important role in carbon uptake due to the large-scale development. According to the local experiences, the bamboo forests and Camellia plantations could produce carbon sink with 0.6tCO₂e per mu per year and 0.3tCO₂e per mu per year respectively. This potential can be further enhanced through improved management and the transformation of the harvested biomass into durable goods or replacing high emission materials like plastics and concrete etc. Considering the growth cycle of the Chinese medicinal plants is relatively short, this sub-component only takes the carbon sink from bamboo forests and Camellia plantations into account. There is considerable potential for scaling up this initiative if the properties of bamboo as a store of carbon are properly understood and a mechanism developed to provide credits for it.

Activities: Major activities under sub-component 1.4 include: (i) Enhance carbon sequestration through improved management and the transformation of the harvested biomass into durable goods, or replacing high emission materials; (ii) Develop & Implement training plans on carbon monitoring and accounting; (iii) Measure and monitor carbon on the selected plots of bamboo and Camellia plantations with both improved management and management as usual in the county; and (iv) Develop a model for proper monitoring and accounting of carbon uptakes and emissions for bamboo and Camellia plantations. The main outputs that will be produced accordingly include: (i) Enhanced carbon sequestration with monitoring and accounting report of the enhanced carbon; and

(ii) Awareness raising and capacity building of smallholders trained in carbon monitoring with focus on women.

Implementation Strategy: The Provincial Forestry Department through its Carbon Sequestration Centre, along with the County Forestry Bureau with support of technical organization or consultants, will develop a model for proper monitoring and accounting of carbon uptakes and emissions for bamboo and Camellia plantations. Upon this they develop and implement training plans on carbon monitoring and accounting to the technical workers and smallholders, and guide to measure and monitor carbon on the selected plots of bamboo and Camellia plantations with both improved management and management as usual in the county at the baseline year, mid-term, and final stages of project implementation. This will help to assess the public benefits of carbon sequestration through project implementation, the cost of the carbon sequestration per unit and the feasibility of carbon trading when that becomes possible again for the value chain crops in the project area. The model will be tested in a few counties such as Taojiang, Heshan and Yuanling which have sizeable area under bamboo and Camellia plantations. The project experience will lead to the development of a model for carbon sequestration enhancement and proper monitoring and accounting at larger scale in the province or even the country, building technical capacity of government and private sector bamboo owners to estimate their carbon credit potential using advanced technologies. For example, the INBAR has developed a Mobile App that supports effective inventory of different types of bamboo species. This activity will also be in close collaboration with the KfW who is developing concepts to support close to nature forest management and also working on bamboo and camellia trees as well as carbon monitoring and trading in Hunan.

Component 2: Enterprise Led Business Development

Under Component 2, HGDP will provide catalytic resources for investment in upstream businesses and selected government enterprises for the three value chains. This component includes three sub-components focusing on enhancing the business development and growth of enterprises involved in the three selected high value commodities value chains, assist them to better partner with target smallholder farmers, while enhancing their processing capacity, product diversification & development and marketing and reducing their environmental impact and increasing their pro-poor nature. The principal mechanism for these investments will be the CDICs, which are the investment arms of the respective county governments. The CDICs have invested in public enterprises such as government farms and private enterprises (previously through lending mechanisms but also through joint ventures), some for decades.

CDIC are required to invest using government regulations (including safeguards) and project preparation includes social, environmental and economic feasibility study as well as other studies required depending on prevailing social-environmental safeguards. Investment criteria will be guided by the Forest Bureau and in close coordination with related CDICs and the county governments. These will include the following broad categories covering return, impact through inclusivity, climate action and innovation, and alignment with county safeguards against a minimum criteria as follows:

Table 6: CDIC Investment criteria

Criteria	Direct (upstream processing, packaging, logistics)	Direct (production level investment)	Indirect (infrastructure, industrial parks)
Industry/VC	Camelia, bamboo, medicinal herbs		
Supplier	Cooperatives, independent smallholders, (minimum 35% of total volume supplied) OR a commitment	Cooperatives, smallholders as lessors or owner	80% of businesses occupying must source at least 50% of their supply volume from smallholders,

	to increase volume supplied by cooperatives/independent smallholders to 35%.	operators.	or state and/or private enterprises which involve smallholders as lessors, operators.
Jobs	Women, youth, rural poor	Smallholders, rural poor	Women, youth, rural poor
Environmental and Social Management Plan and capacities	Compulsory	Compulsory	Compulsory
Climate Action	Commit to use energy efficient options	Must use climate sensitive and adaptive production techniques	Must be constructed as a green park or infrastructure
Business Plan Emphasis	Emphasis on skills training, and fair and just labour contracts; Market development and growth Environmental sustainability & Reduction of climate emission	Emphasis and budget allocation to capacity building, training of production and light processing workers (either smallholder operators or smallholder contractors) and fair and just contract farming arrangements Environmental sustainability & Reduction of climate emission	Environmental sustainability & Reduction of climate emission
Investment Purpose	Product development and differentiation, branding, innovation, start-ups, VC greening and carbon label	Improved, climate resilient production at scale to respond to market signals from value chain partners ; reduced transaction costs (i.e. road)	Provision of infrastructure to support primarily private sector in the 3 value chains.
Investment Returns	Essential	Essential and regular	Essential and Regular
Types of Investments	Joint venture/startups, equity for private firms	Cooperatives, government farms, private farms (large or small, in partnership with cooperatives) via Component 1	Infrastructure which generates regular, positive returns after an initial construction and start up period.

There are several models and investment types that will be adopted based on the plans of each county. In some counties, the CDIC will invest in establishing agro-enterprise parks to provide the basic facilities, and in some cases complementary services and infrastructure to be used by private sector tenants. Private enterprises will be attracted to these parks to access third party costly investment infrastructure and pooled services, reduce their initial investment costs and environmental footprint as well as achieve flexibility for scaling and modification of business lines in the future, logistical advantages and customization options. In other counties, the CDIC or a public sector entity like the Forestry investment branch of the CDIC in Xupu or the State Forest Farm in Yanling will make an equity investment in a selected value chain activity and will directly take on the business risks to expand the production base and to create decent employment opportunities including for women and youth. It is likely, given the inability to lend by the CDICs, that investments which generate regular income (like rents, regular or seasonal sales, dividends etc.) will be prioritized over longer term, higher risk investments such as joint ventures or startups.

The main outputs that will be produced under this component will include (i)

operationalized inclusive growth business plans that make the most of the production plans of component 1, ensure compliance to investment criteria, and required gender, social, climate and environment outcomes; (ii) expansion of physical infrastructure in green enterprise parks ensuring improved energy efficiency and management of waste and in climate adapted storage and processing facilities of private enterprises; (iii) product diversification to improve margins and increase employment opportunities. This will lead to an increase in volume and quality of produce processed and marketed, creating decent employment for women and youth in the enterprises and generating economic multiplier effects along the value chains helping to grow the rural economy. Furthermore, such investments are expected to improve energy efficiency and waste management, including through the use of renewable energy.

Responsibilities: The overall responsibility for the implementation of this component will be with the Provincial Forest Bureau, (PFB), CDIC and County Forest Bureau (CFB) . CDIC and CFB will coordinate with other line departments/offices such as Finance, Development and Reform Commission, Water, Forestry, Roads, Women Federation, Ethnic Minority, Youth etc. to provide support and inputs for the project.

Project implementation principles: The implementation of the project will follow the following principles:

- Open and Transparent for all every eligible applicant and for the general public (through public advertisement, invitation for proposals and public disclosure of support to cooperatives, investors and associated enterprises)
- Business and Client Driven by enterprises (not by local Governments and County Development Plans)
- Economically Efficient, Financially Viable and Sustainable, where all supported investments to private entities will be based on a satisfactory and convincing business plan;
- Focus on vulnerable groups; the project will focus of ensuring that the benefits generated by the development of the project areas (through the support to lead "industries", the creation of new employment opportunities, and comprehensive infrastructure development) primarily benefit identified vulnerable groups, i.e. former archived poor and relative poor households, women, youth, and ethnic minorities; and
- SECAP requirements/ socio-environmental safeguards will be fully considered in the Business plans: essential assessment and safeguards for potential social, environmental and climate risks will be elaborated in the BPs in line with government and IFAD requirements, including assessments to be done through qualified service providers if relevant. ensure that companies have required environmental and social management system (ESMS) in line with China recently updated framework for disclosure of environment and social governance system for companies, providing standards for them to report and disclose environment and social elements and get them certified externally. In addition, capacity to implement ESMS will be screened and provision for capacity development made in case of capacity gaps.

Preparatory and early stage implementation activities: While each county has already proposed detailed proposal to PFB in support of three value chains, the project would take a step back and follow a sequence of preparatory and early stage implementation activities. Under the project, the detailed investments activities will be defined or re-defined following a process of targeting, awareness building, cooperative capacity building, training, facilitation and investment proposal preparation by each of the supported enterprise in support of cooperatives/households. The following preparatory steps will be undertaken, aligned with FPIC guidelines:

- County Training & Awareness Workshops will be conducted to make all county PMO staff and related line department staff aware of the project principles and familiar

with the detailed implementation arrangements (familiarity with project documents, manuals, safeguard requirements, etc.); funds for this activity are provided under the Management Component for each county.

- Project Information Disseminations providing full project information to the villages and stakeholders in the value chains; each county will ensure that project information is widely disseminated, and full project information is provided to all project villages, and to all stakeholders in the value chains including traders and processing companies in the counties.
- Round Table Stakeholder Meetings will be conducted (at least one for each value chain) in each county over the first 2-3 months. For these meetings all relevant private and public sector partners (processing enterprises, traders, existing cooperatives, lending institutions), research institutions, government line department representatives, etc., should be invited and informed about the project and discuss the development constraints, opportunities, partnership arrangements and proposed options for the value chains. The counties will keep records and provide documentation of the invited and participating stakeholders and the minutes of such meetings.
- Technical Advisory Groups (TAG); The CPMO will establish a Technical Advisory Group (TAG) besides the technical experts from Hunan Provincial Academy of Forestry, with at least one representative from each stakeholder group nominated or elected during the round table stakeholder meetings. It is important that the TAG will not only include members from the Government line departments but include members from the private sectors, businesses, rural finance institutions, etc. The role of the TAG will be to guide and advise project applicants in the preparation of business plans and their subsequent technical review. Competence in general business development, management and in market development is an essential element for the TAGs. TAG members would not be hired but can be compensated for their work and services using project funds allocated.

Sub-Component 2.1: Inclusive Business Plan Development

Each county will submit a proposal to the Provincial Forestry Department that will outline its plan of investment and how it complies with the minimum criteria of the project. This plan will indicate the model that each county is adopting and the co-financing by each partner such as from the CDIC, the public companies and the private enterprises. The proposals will include the technical, financial, gender, social and environment and climate feasibility of each proposal and screen environmental and social management plans of targeted enterprise. The proposals will build on established market opportunities and trends, link with and reinforce production plans in component 1 and elaborate on the potential of the enterprise to involve cooperatives and smallholders, women and youth; providing them not only additional employment and income opportunity but also strengthening participation in decision making and leadership. Each county will provide regular monitoring reports on the use of the funds and monitor its progress and report on the increase in production, land area rehabilitated and improved, employment and revenues generated and the participation of smallholders by gender, ethnic minority, poverty and age, among others. An illustrative list of enterprises expected to participate in HGDP is given in Table 7 below.

Table 7: List of Enterprises Expected to Participate in each County.

No.	County	Name
1	Yanling	Qingshigang State-owned Forest Farm
2	Hengshan	Hengshan County Urban and Rural Construction Investment Co., Ltd
3	Pingjiang	Pingjiang County Mijiang Yuanshan Tea Oil Co., Ltd. and Hunan Shanrun Oil Tea Technology Development Co., Ltd
4	Heshan	Heshan District Shanxiang Jubian Agricultural Development Co., Ltd
5	Taojiang	Taojiang County Zhuxiang State owned Assets Operation Co., Ltd
6	Yuanling	Yuanling County Forest Resources Collection and Storage Co., Ltd
7	Xupu	Xupu County Xingxiang Forestry Co., Ltd

Implementing Strategy

The Inclusive Business Plan (IBP) approach involves working closely with agribusiness management teams to create a roadmap to deepen, broaden and/or strengthen supply chains in a way that delivers value to both smallholders and shareholders. IBP developers then work with management to operationalise the IBP by deploying inclusive technical assistance. An IBP is a thorough analysis produced over 3-6 months that:

- Diagnoses smallholder supply chain challenges;
- Identifies or validates the inclusive business growth opportunity, aligned to commercial objectives, identifying opportunities for greater commercial and smallholder impact;
- Quantifies the opportunity in terms of commercial value for the business and impact for smallholder farmers;
- Lays out a strategy to access the opportunity including investment and any partners required; and,
- Maps out an implementation plan; a linked package of technical assistance and blended finance.

The business planning process involves field visits and regular touch-points with company management to identify key growth levers and ensure that the plan is grounded in the business' reality. IBPs are co-created with agribusiness partners to ensure stakeholder alignment, ownership and buy-in. To ensure viability, all recommended inclusive growth initiatives are linked to a robust business case. The IBP is action-oriented and lays out a clear, pragmatic strategy to support the business to access the opportunity.

IBPs typically represent just a fraction of the size of an investment, but can have significant impact for investors, businesses, and suppliers; addressing fundamental barriers to inclusive and sustainable growth through careful analysis, the right combination of business, strategy and agronomic expertise and hands-on problem solving.

In the project county, it is expected that each enterprise desiring to participate in the project for joint financing shall prepare a business plan to the CDIC/County Finance Bureau and County Forest Bureau. The later will undertake the selection of enterprises on a competitive basis to allow all potential enterprises in the County to participate. The appraisal will be based on a careful assessment of the experience, assets, extent of engagement of cooperatives and the smallholders. The Country Finance Bureau, CIDC and the Forestry Bureau will ensure that the development and business plans strictly comply with the Government and IFAD's social and environmental safeguards, additional assessments or ESCMPs should be included as part of the business plan, when necessary.

Finally, each county will submit a proposal to the Provincial Forestry Department that will outline its plan of investment. This plan will indicate the model that each county is adopting

and the co-financing by each partner such as from the CDIC, the public companies and the private enterprises. The proposals will include their technical, financial and socio-environmental feasibility plans. The proposals will elaborate on the potential of the enterprise to involve cooperatives and smallholders, women and youth. Each county will provide regular monitoring reports on the use of the funds and monitor its progress and report on the increase in production, land area rehabilitated and improved, employment and revenues generated and the participation of smallholders by gender and age, among others.

Sub-Component 2.2: Establishment of Productive Infrastructure

There are several types of infrastructure investments envisaged under the HGDP that will be financed from both IFAD loan funds and co-financing by the private and public sector enterprises. These will include (i) investments by the CDICs in the agro-enterprise park for building the basic infrastructure and ensuring access to utilities, proper waste disposal, and adherence to environmental and safety standards to attract investment by private enterprises; ((ii) investments by enterprises in processing, storage and packaging, equipment in the parks for the three selected crops and (iii) investments by public entities to expand their production and processing base.

The private sector enterprises will capitalise on the presence of the enterprise parks which the County government is investing in to encourage the growth of the three selected value chains. The investment in productive infrastructure for increased storage and processing will enable the enterprises to operate at scale. Some of the enterprises have decided to merge together to standardize their production, secure certification and enhance their market share. This enhanced processing capacity will enable the enterprises to offer increased employment opportunities to the young women and men in the counties to revitalise the rural economy through multiplier effects along the value chains.

The project will also use some of the IFAD funds to identify and invest in enhancing the primary processing capacity of cooperatives by helping them locate some of the processing facilities nearer the plantations. These primary processing facilities will help the cooperatives to generate greater income for their members and access markets directly as well as through enterprises. The CPMOs will determine the criteria for availing these facilities to cooperatives based on competitive proposals from cooperatives which will be based on their financial, technical, social and environmental feasibility. The investment in cooperatives, subject to its nature of infrastructure, will also be reflected in the business plan development activity of component 2.1.

Implementing Strategy

The sub-component will mainly be implemented by CDIC or state owned enterprises in collaboration with Country Forestry Bureaus, and in partnership with the agribusiness entities participating in the project. For activities relating to public infrastructures, CDIC and the state owned enterprises will directly implement by themselves, through development of annual workplan and budget and procurement. For equity financing with private enterprises, the CDIC or SOEs will develop joint investment proposals with private enterprises and sign cooperation agreements following the usual practice of CDICs in similar joint financing schemes.

Social and Environmental safeguards will be an important aspects of such investment, either directly by CDIC/SOE or jointly with private enterprises. Due assessment will be made to social and environment aspects of the business, in line with government rules and requirements and with due consideration to the SECAP requirements of IFAD. Safeguard measures will be proposed to mitigate identified risks, with due reference to those included in ESMP of the project PDR. Preference for engagement of smallholders, especially women, youth and ethnic groups, either in purchasing of raw materials or employment, will be priorities of issues for consideration in their investment business plans

or cooperation agreements. County Forestry Bureaux will exercise the monitoring and supervision role in the investment, partnership, results and safeguards aspects of the implementation by these entities.

2.2 Productive Infrastructure

Productive Infrastructure here includes the enhancement of primary processing and enterprise processing as well improving and developing the enterprise park for building the basic infrastructure. It is important for enterprise profits to enhance processing capacities by investments on productive infrastructure.

2.2.1 Enhancement of primary processing capabilities

It includes enhancement of primary processing capacity of *Camellia oleifera* and medicinal herbs.

2.2.1.1 Enhancement of primary processing capacity of *Camellia oleifera*

The primary processing process of *Camellia oleifera* seeds is roughly divided into:

- Drying *Camellia oleifera* fruits: After the *Camellia oleifera* fruits are picked, they are dried by the sun. The harvest season for *Camellia oleifera* fruits is in autumn, and the sun is not too strong. Generally, after a few days of pre-drying, the tea seed shells will burst and expose the jet-black tea kernels.
- Shelling and sorting: Not all camellia seed shells will crack after being pre-dried, and some require manual selection to obtain plump tea seeds. With the advancement of technology, there are also special camellia seed shelling and sorting machines to improve the efficiency of separating tea seed shells and tea seeds.
- Drying of *Camellia oleifera* seeds: Use a professional *Camellia oleifera* seed dryer - air energy heat pump dryer. Set the drying process parameters of *Camellia oleifera* seeds on the computer control panel, push the loaded *Camellia oleifera* seeds into the drying room with a cart, start the drying process, and the *Camellia oleifera* seeds drying can be completed after about 20 hours of automated drying.

The fresh fruits of *Camellia oleifera* are usually picked in early November every year. After picking, if there is no cold storage, it must be dried within 5 days, otherwise it will easily become mouldy. With cold storage, fresh fruits can be stored for a month. If the dried *Camellia oleifera* fruit cannot be refrigerated, it can only be stored for up to half a year, but if it is placed in a refrigerator, it can be stored for one year. The refrigeration and preservation facilities further improve the turnover period of *Camellia oleifera* fruit processing, making it easier for cooperatives or *Camellia oleifera* processing enterprises to increase the purchase of fresh *Camellia oleifera* fruits.

With the cold storage, tea seed mildew and loss rates are reduced, the storage period is extended, the pressing and extraction of high-quality tea seed oil is better guaranteed, and fresh tea seed oil can be produced all year round, which will also certainly promote a significant increase in sales of tea seed oil.

2.2.1.2 Enhancement of primary processing capabilities of medicinal herbs

The primary processing procedures of the medicinal herbs in this project are in the table below.

Table 8 Medicinal herbs collection and processing

Name	Medicinal parts	Collection and processing
<i>Polygonatum sibiricum</i> (黄精)	Dry rhizomes	Harvest in spring and autumn, remove fibrous roots, wash, blanch slightly in boiling water or steam until core is penetrated, and dry.
<i>Phellodendron chinense</i> (黄柏)	The dry bark of the plant	1. Remove impurities from cork, spray with water, moisten, cut into shreds and dry. 2. Salt cork: Take cork shreds, add a certain amount of salt aqueous solution, stir-fry and stir-fry until dry. 3. Cork charcoal: Take cork charcoal and fry until the surface is burnt black.
<i>Ilex asprella</i> (岗梅)	Root	It is better to harvest the roots in autumn, wash them, use them fresh or slice them fresh, and dry them in the sun for later use.
<i>Lonicera hypoglauca</i> (山银花)	Flower	The harvesting period must be before the flower buds open. The picked flower buds must be dried or dried in time and do not pile up to become mouldy.
<i>Polygonatum odoratum</i> (玉竹)	Dry rhizomes	In the beginning of autumn, mechanical and manual digging are used to harvest. First, cut off the stems, and then start digging the roots. Pay attention to the digging depth. If it is too shallow, it will easily damage the rhizome and cause root breakage and damage, which will affect its quality. The digging depth should be controlled at 25cm. When using mechanical excavation, pay attention to turning the soil in one direction, which will help prevent its fleshy roots from being buried by the excavation, and will also help expose its fleshy rhizomes for easy picking.
<i>Dioscorea zingiberensis</i> (黄姜)	Dry rhizomes	Generally, it can be harvested after 2 years of cultivation, but the average annual yield after 3 years of cultivation is the highest. Generally, rhizomes are dug after autumn and early winter, but the content of active ingredients is highest during the flowering period. Digging too early will not only limit the yield, but also reduce the number of seed rhizomes that can be reproduced. After harvesting, remove the sediment and root hairs from the rhizomes and slice or dry them in the sun. Never wash the rhizomes with water to avoid loss of quality.

2.2.2 Enhancement of enterprise processing capabilities

Here it includes enhancement of enterprise processing capacities of *Camellia oleifera*, bamboo and medicinal herbs. Mostly the entities will invest in installation of processing equipment and facilities with their own investment, but following industry standards and government requirements in terms of safety and energy efficiency etc.

2.2.2.1 Enhancement of *Camellia oleifera* enterprises' processing capabilities

The *Camellia oleifera* oil processing steps from *Camellia oleifera* seeds are below:

- Crush: Place the *Camellia oleifera* seeds into a machine for crushing or secondary crushing, then put them into wooden barrels to prepare for the next process. The smaller the tea seed powder particles, the higher the oil yield, and the less sediment after the oil is formed. The better the oil.

- Steamed tea seed powder: Steam camellia seed powder at high temperature. Master the cooking time. The time should not be too long. The standard for steaming is visible steam but not fully cooked, otherwise the quality of the oil will be affected. At this time, the rich aroma of *Camellia oleifera* will be emitted along with the steam, spreading out and smelling full of fragrance!
- Cake embryo making and tea cake pressing: Whether it is the traditional tea cake pressing or the current tea cake pressing, the purpose is to put the steamed tea seed powder into the cake embryo and press it into tea cakes to prepare for the next oil extraction process.
- Oil extraction: Turn on the oil press, and the golden camellia oil will flow out from the oil outlet. It will be clear and translucent and full of mellow aroma.

2.2.2.2 Enhancement of Bamboo enterprises' processing capabilities

Establish an intensive and large-scale bamboo and shoot processing industrial base. There are currently many types of bamboo primary processing orders. The value of bamboo strips(竹条), bamboo splits (竹篾), bamboo bundles(竹束), bamboo sticks (竹丝), bamboo scrap (竹屑), as well as the upper, middle, lower and inner, middle and outer positions of bamboo has not been maximized, and most bamboo processing bases are scattered, the transportation radius is large, and it is necessary to promote the establishment of an intensive and large-scale bamboo and bamboo shoot processing industrial base. The precise utilization, efficient utilization and high-value utilization of different components and parts of bamboo are carried out in an orderly manner in this base, while reducing transportation costs while achieving optimal matching of bamboo product unit form and material properties, bamboo wood and bamboo shoot processing waste. With the optimal combination of resources, environment and energy efficiency, the dynamic harmony between bamboo processing unit scale and process technology and market demand, a closed-loop business model of cleanliness, conservation and efficiency in the bamboo processing base's real estate process has been formed.

2.2.2.3 Enhancement of medicinal herbs enterprises' processing capabilities

Fine processing medicinal herbs could increase the categories and added value of intensively processed products, and build a complete industry chain of medicinal herbs.

2.2.3 Developing and improving infrastructure for the forestry industrial park

The traditional processing enterprises in the 3 value chains are small in scale and scattered resulting in (i) the low utilization efficiency of raw materials (such as bamboo utilization rate of only 15%), resulting in a large amount of waste of resources; (ii) increased environmental pollution caused by non-treated waste from processing; (iii) the non adoption of energy saving modern technology, wasting electricity (iv) low productivity. The lack of appropriate infrastructure limits both the production itself and its capacity to be sustainable.

This sub-component will support farmers and cooperatives to establish processing, storage and technology demonstration industrial parks on state-owned land in suburban areas, including oil tea, bamboo and Chinese herbal medicine processing parks. These parks will include shared amenities such as heating systems to provide heat sources for production, workshops to expand production, warehousing and exhibition centers. These infrastructures will enable companies to scale up, improve production efficiency, and promote production standardization and compliance with environmental standards. The main activities of this subsector include:

The development of 31 km of internal roads and lighting in the parks, 38000 m² heating system, 14000m² storage, 45000m² workshop, 64 set processing equipment.

The ownership of the industrial park belongs to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure. After the completion of the infrastructure, the County Project Management Office shall transfer the use right to the corresponding management agency. The management agency shall be responsible for the operation and maintenance of the infrastructure, and can receive technical and financial support from government departments and relevant agencies.

2.2.3.1 Implementation Arrangement of Component Infrastructure

These activities will be implemented in selected locations in the project counties of Hunan Province in accordance with local infrastructure constraints and the development needs of the project forestry industry. The Provincial Project Management Office (PPMO) will be responsible for overall oversight and coordination. Sub-offices at the county level will be responsible for the detailed implementation of activities grouped into segments within their respective counties.

A step-wise participatory process will be adopted for implementation of this sub-component, including: (i) participatory need assessment on infrastructure development based on local development plans on poverty reduction, production potential and their requirements on infrastructure services; (ii) identification/establishment and training of infrastructure management organizations; (iii) system planning, engineering survey and design of infrastructure systems; (iv) consultation and finalization of system planning and engineering designs, including discussion and agreement on the O&M responsibilities of infrastructure management organizations; (v) implementation of construction and supervision; (vi) inspection of construction completion and handing-over of O&M responsibilities to infrastructure management organizations; (vii) implementation of normative O&M by infrastructure management organizations; and (viii) facilitation of women's involvement in each of the above steps.

The system planning and engineering design of the proposed infrastructure shall follow the technical specifications issued by the relevant government agencies. County Forestry Bureaus should work closely with Water Bureaus, Transportation Bureaus, Power Bureaus, Environmental Protection Bureaus, labor employment, health committee to ensure that construction programs are in line with government strategies and policies. Qualified experts should be selected to provide technical assistance and training to the project. Prior to the commencement of each infrastructure project, a corresponding infrastructure management body should be identified/established to fully participate in the whole process of system planning, design and construction supervision, and assume the responsibility for operation and maintenance after the completion of the project.

A sustainable and weather-resistant approach will be implemented at every stage of the project. In preparation, the impacts of climate change on water supply, water demand, frequency and intensity of floods and droughts will be assessed and integrated into system planning. In the implementation process, appropriate adaptation and mitigation options will be integrated into system design and operation, including the use of adaptive technology models and engineering, and the application of energy-efficient technologies and equipment to support effective water resources management. Indicators related to climate change, such as irrigation efficiency and reliability, will be carefully evaluated during the evaluation process.

During the planning and engineering design of the system, special attention should be paid to the environmental protection policies of the Government and IFAD in order to avoid any significant negative environmental and social impact. Specifically, the following interventions will be excluded: (i) large-scale dam/reservoir construction, such as dam height of more than 15 meters and reservoir capacity of more than 3 million cubic meters; (ii) use of ground water; (iii) Restoration or development of large-scale irrigation schemes with an irrigated area of more than 100 hectares; (iii) construction of rural roads that

entail the total area being cleared above 10 km long, or any farmer with more than 10 % of his/her private land taken; (iv) drainage or regulation of natural water bodies (e.g. river regulation); (v) significant extraction or diversion/containment of surface water leaving the river flow below 20 per cent environmental flow plus downstream user requirements; (vi) Significant conversion or degradation of critical natural habitats or critical cultural heritage sites

The specific interventions initially identified in this sub-component will be further defined and adjusted during project implementation according to the same selection criteria applied during project preparation : (i) Compliance with relevant government policies, plans and guidelines; (ii) Contribution to the achievement of programme objectives; (iii) Availability and good potential of forest land and water resources development; (iv) The readiness of external major infrastructure systems/networks; (v) The willingness of local villages and beneficiaries to take responsibility for operation and maintenance; (vi) Technical, economic, social and environmental feasibility; (vii) Incorporating climate change conditions; (viii) Seeking FPIC from community members including ethnic minorities (where relevant); (ix) Taking into account the overall scale, reasonable scope and cost of the project.

Infrastructure construction shall comply with the basic engineering construction procedures and technical specifications (such as the Regulations on the Management of Hydraulic engineering Construction Procedures (2017)). The steps of construction implementation include: design, construction, acceptance, handover, monitoring and evaluation.

Risks and Mitigation Measures:

The activities under the project may have potential risks to the environment. Increased production from inappropriate practices may increase soil erosion, pollution from chemicals such as pesticides, and waste from processing activities. Improvements or new developments in irrigation schemes may have an impact on water ecosystems through overuse of water sources and may increase the potential for fertilizer leaching. Inadequate institutional capacity may lead to inadequate operation and maintenance of infrastructure systems; Infrastructure systems may be damaged by floods, landslides or soil erosion; And the inefficiency of irrigation water caused by inappropriate irrigation methods. Therefore, it is very necessary to carry out reasonable planning and design for the construction of infrastructure. In addition, the potential impact of projects on the environment should be closely monitored during their implementation. The activities designed for the project include: a) incorporating climate change factors into infrastructure improvements to increase resilience to natural disasters and the impacts of climate change; b) adopt full compliance with national regulations and standards in industry construction and operation, as well as work safety related code of conduct for the relevant industry/businesses; c) identification/establishment and strengthening of infrastructure management organizations to enhance institutional capacity for infrastructure operation and maintenance; d) carry out technical training and promote energy-saving, carbon reduction and waste/pollution prevention technology. This is further detailed in Annex 13 of the PDR.

Sub-Component 2.3 Product Development & Marketing

The private sector enterprises will use their own capital and the equity financing to also invest in product diversification and improved branding and marketing. The enterprises are planning to enhance quality control, and standardize the quality of production, secure certification and traceability, enhance their brand and reach out to both domestic and

export markets. The use of the "Carbon Label" will also be used to enhance the appeal of the products that can be used by the end buyer wanting to gain additional benefits from projecting themselves as carbon conscious and environmentally sensitive.

It is expected that the enhanced brand image and recognition of the selected counties will increase incomes and generate tourism in some of the selected counties. There is growing demand for tourist treks and facilities particularly in areas which produce medicinal plants to establish spas using traditional medicine grown in Xupu; the Moso bamboo shoot production base in Taojiang county is attracting tourists with tourism facilities, some tourism facilities in *Camellia oleifera* bases in Pingjiang are planned such as *Camellia oleifera* park etc. This is expected to generate additional employment and incomes.

Carbon labelling

Under this sub-component, the methodologies on carbon footprint labelling of major bamboo products and tea oil products of *Camellia* will be developed and tested. The Project will help enterprises and farmers use the "Carbon Label" to develop a valued global product that facilitates the export of its commodities.

Rationale: The "Carbon Label" is becoming a global product label and a "passport" for the import and export of goods in the long run. It is worth to explore the carbon labelling of processing value chain development in the Project including carbon footprint of major bamboo products and tea oil products of *Camellia* besides carbon sink from crop production.

Activities: Major activities under sub-component 2.3 include: (i) Develop the methodology on carbon footprint labelling of major bamboo products and tea oil products of *Camellia*; and (ii) Testing and piloting carbon footprint labelling on selected bamboo product and tea oil product of *Camellia*. The main outputs will be (i) Methodologies on carbon footprint labelling of major bamboo products and tea oil products of *Camellia*; and (ii) Carbon labelling created for the selected bamboo product and tea oil product of *Camellia*.

Implementation Strategy: The leading role in developing and testing the methodology on carbon footprint labelling of major bamboo products and tea oil products of *Camellia* would be initially with the Provincial Forestry Department, in collaboration with County Forestry Bureau, CDIC, and public or private enterprises. The piloting of carbon footprint labelling on selected bamboo product and tea oil product of *Camellia* will be conducted by the processing enterprises with interest in facilitating market and export of their products for innovation premium.

Product development is a complex and iterative process, and it's important to involve all relevant stakeholders throughout the process, including product managers, designers, engineers, marketers, and sales representatives. Product development is an essential part of business success, and it's important to invest in the process to create products that customers love.

Processing technology innovation is a dynamic field that encompasses the development and application of new and improved methods for transforming raw materials into valuable products. It plays a crucial role in various industries, including manufacturing, food processing, pharmaceuticals, and biotechnology. Processing technology innovation is a continuous journey that drives advancements in various industries, shaping the way we produce, consume, and enjoy goods. As consumer demand, technological advancements, and environmental concerns evolve, processing technologies will continue to play a pivotal role in sustainable and efficient production of high-quality products. In the project areas and with the enterprises, there are already new processing technologies and machines on bamboo shoots, bamboo panels and *Camellia oleifera* being applied. The involved enterprises will continue to invest in this area during the project life.

Branding is the process of creating a unique identity for a business or organization. It involves developing a clear and consistent message that communicates the brand's values, mission, and target audience. Effective branding helps businesses differentiate themselves from their competitors, attract new customers, and build brand loyalty. Branding is an essential part of any business's marketing strategy. By investing in branding, businesses can create a strong and recognizable brand that can help them achieve their business goals.

Key elements of branding:

- **Brand identity:** This encompasses the visual elements of a brand, such as its logo, color palette, typography, and font style. It also includes the brand's overall personality and tone of voice.
- **Brand positioning:** This is how the brand is positioned in the market relative to its competitors. It defines the brand's unique selling proposition (USP) and how it is differentiated from other brands.
- **Brand messaging:** This is the way in which the brand communicates its message to its target audience. It includes everything from the brand's advertising and marketing materials to its customer service interactions.
- **Brand experience:** This is the overall experience that customers have with the brand, both online and offline. It includes everything from the first time they hear about the brand to the last time they interact with it.

Building a strong brand is an ongoing process that requires consistent effort and investment. Here are some key steps to building a strong brand:

- **Define your brand identity:** Clearly define your brand's values, mission, and target audience. This will help you to develop a consistent brand message and visual identity.
- **Develop a strong brand positioning:** Clearly define your brand's USP and how it is differentiated from its competitors. This will help you to attract the right customers and stand out in the market.
- **Create consistent brand messaging:** Ensure that all of your marketing materials, from your website to your social media posts, communicate a consistent brand message.
- **Deliver a great customer experience:** Your customers are the foundation of your brand. Make sure that you deliver a great customer experience at every touchpoint.
- **Track and measure your results:** Regularly track and measure your brand's performance. This will help you to identify areas for improvement and make adjustments to your branding strategy as needed.

During the project life, the involved processing companies will invest to create their own brands. They will adopt new processing techniques and technologies to promote bamboo, *Camellia oleifera* and medicinal herbs industry and intensive processing of by-products, diversify their products, increase the added value of products, and create their brands.

Marketing is a complex and ever-evolving field, but it is essential for any business that wants to succeed. By understanding the basics of marketing and developing a sound marketing strategy, businesses can achieve their goals and grow their business.

The private sector enterprises will use their own capital and the debt financing to also invest in product development and marketing, no IFAD loan will invest in products development and marketing. The enterprises are planning to enhance quality control, and standardise the quality of production, secure certification and traceability, enhance their brand and reach out to both domestic and export markets. This will energize and upscale growth and ensure the sustainability of all the players along the value chain including the smallholders who will be tied in close partnership with the private enterprises. It is

expected that the enhanced brand image and recognition of the selected counties will increase incomes and generate tourism in some of the selected counties. There is growing demand for tourist treks and facilities particularly in areas which produce medicinal plants to establish spas using traditional medicine grown in Xupu; the Moso bamboo shoot production base in Taojiang county is attracting tourists with tourism facilities, some tourism facilities in *Camellia oleifera* bases in Heshan are planned such as Camellia oleifera park etc. This is expected to generate additional employment, sales and incomes. Considering the "Carbon Label" may become a global product label and a "passport" for the import and export of goods in the long run, it is also worth to explore the carbon labelling of processing value chain development in the project including carbon footprint of major bamboo products and tea oil products of Camellia besides carbon sink from crop production.

E-commerce is increasing taking over the traditional marketing approaches and offers potential for the relevant entities in HGDP to promote and market their products. E-platform is a software application that allows online businesses to manage their website, marketing, sales and operations. Platforms like Big Commerce offer powerful ecommerce features, while also integrating with common business tools — enabling businesses to centralize their operations and run their business their way. Understandably, deciding on the best ecommerce platform has wide-ranging implications: a) helping customers that are engaging with your brand get the products they need; b) ensuring your employees have what they need to implement sales and marketing strategies; c) protecting your bottom line in terms of sales growth, in addition to the cost of maintenance and installation.

Short videos and live broadcasts on e-commerce platforms provide a solution to the problem of agricultural product sales. In the past year (September 2022 to September 2023), the Douyin e-commerce platform helped sell 4.73 billion orders of agricultural specialties. On average, 13 million packages containing agricultural specialties were sold to all parts of the country through Douyin e-commerce every day. With the multi-dimensional exposure of all-area interest e-commerce and various special support policies constantly upgraded by the platform, various agricultural specialties in rural areas have reached thousands of households.

In the process of helping farmers, the value of Douyin e-commerce is to make good content visible to more people, encourage the creation of high-quality e-commerce content, and expose more rural content from its origin. No matter how small the category or how unpopular the product, it has the opportunity to be seen, tried and purchased, and it also gives more niche industry merchants better room for development. On the other hand, Douyin's various supporting policies for e-commerce are also helping merchants to continue to standardize, and achieve more sustainable development. The increase in sales brought by short videos and live broadcasts helps merchants obtain more cash flow, further expand production capacity, and continuously open up the upstream and downstream industry chains to achieve further development.

Eco-tourism offers the potential for the project supported plantations and adjacent areas to expand their business model and integrate service sector with the primary production and secondary processing industries. Proposals for developing eco-tourism will be included in the business plans of the undertaking entities when they submit such plans to CDIC and/or Country Forestry Bureaux for review and approval. The responsibility of operation and business management of eco-tourism rests with the initiating entities. Adequate social, environmental and management risk assessment will need to be undertaken and considered in initiating eco-tourism projects in connection with the three value chains of the project.

Component 3: Project management and capacity building

The implementation of this component mainly involves:

- Establishment of institutional structure/functions at all levels to support the coordination, management and oversight of the project implementation;
- Assignment of adequate and qualified staff and facilitators at all levels, from provincial PMO to VIG;
- Development of guidelines, platforms, systems, mechanisms for functioning of the institutions and services required to support project management;
- Mobilizing domestic resources and alignment with government programs, development of AWPB and procurement plans;
- Development of strategies and plans for M&E, knowledge management, SECAP related aspects;
- Undertake of capacity building exercises;
- Procurement of goods and services;
- Other day to day tasks necessary to ensure proper project implementation.

The funds allocated for this component will be used for building the management capacity and undertaking necessary management activities for implementation of the project. The Provincial Forestry Department and the Forestry Bureaus at the county level will provide the management and field staff, office accommodation and the logistical support. The financial management and procurement arrangements required for efficient project management will be put in place. The funds for this component are expected to be provided jointly by IFAD and the Provincial and County Governments including the operating costs and the financial management capacity building needed for the CPMOs' and any procurement and auditing functions.

It is also expected that the Government will invest in R&D for the development of innovative technologies and practices that can enhance yields, climate adaptation and mitigation, productivity, biodiversity and are more efficient and cost-effective. This component will also include arrangements for monitoring and evaluation including on empowerment, knowledge dissemination, opportunities for South-South Triangular Cooperation. SSTC and knowledge/policy contributions will be supported under this component. Partnership will be sought with agencies like the International Bamboo and Rattan Organization (INBAR) for the development of the bamboo value chain. Project M&E system will be established to assess and monitor the overall implementation of the project in various aspects to inform and improve its management. Finally, budget includes provision for implementing SECAP requirements and train staff accordingly.

Project Implementation Matrix

Component/Sub-Component	Description of Activity/Sub-Activity	Responsibility	Timeline	Deliverable
Component 1: Smallholder Integration in Value Chains				
Sub-Component 1.1: Developing Inclusive & Sustainable Production Management Plans	Identify the CDIC, private and public enterprises willing to partner with HGDP	Provincial Forestry Department, County Government & County Forestry Bureau	At design	List of partners
	Assess the potential for smallholder participation with particular focus on women and youth	County Forestry Bureau & CDIC County WF County CYL	At design	Preliminary outreach targets with 50% women and 30% youth
	Assess smallholder cooperatives willing to collaborate with an assessment of capacity and training plan especially with women in leadership positions	County Forestry Bureau & CDIC County WF	First Year of Implementation	List of cooperatives willing to collaborate with assessment of capacity and training plan with 50% women leaders
	Jointly develop an overall plan at provincial level with 7 plans for the inclusive and sustainable management of the selected value chain commodity in the county.	Provincial Forestry Department, County Forestry Bureau & CDIC & Cooperatives	First Year of Implementation	Joint production management plans with 50% women
	Negotiate agreement with clear Terms of Partnership between all key partners for value chain development	County Forestry Bureau, CDIC, public or private enterprise & Cooperatives, smallholders	First Year of Implementation	Signed agreements
Sub-Component 1.2: Implementation of Sustainable & Climate Smart Management Practices	Provide enhanced seedlings, saplings, fertilizer and subsidies to smallholders	Provincial Forestry Department, County Forestry Bureau, public or private enterprise & Cooperatives	First five years of project implementation	List of smallholders provided improved inputs
	Develop & Implement training plans on sustainable & climate smart management practices on plantations of the three value chain crops.	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise County WF	First five years of project implementation	Smallholders trained in enhanced climate resilient adaptation practices with focus on women and youth.
	Conduct sustainable & climate smart management practices of the three value chain crops	County Forestry Bureau, CDIC, public or private enterprise & Cooperatives, smallholders	First five years of project implementation	Increased area under sustainable & climate smart management practices of the three value chain crops with

				participation of smallholders and women
	Survey and monitor the management practices with five technical models in the project area and compare to the baseline in the region	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise & Cooperatives	First five years of project implementation	Five technical models of the three value chain crops for demonstration and knowledge sharing
	Engage the smallholders in sustainable & climate smart management practices	County Forestry Bureau, CDIC, public or private enterprise & Cooperatives, village, smallholders	First five years of project implementation	Three innovative models of engaging the smallholders in production with increased diversified incomes in return
	Monitor regularly the field demonstrations for the proper management of the plantations and adaptive techniques to protect against droughts, flooding, soil erosion, etc.	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise, Bureau of Meteorology	First five years of project implementation	Field demonstrations for the proper management of the plantations and adaptive techniques
	Warn the meteorological and secondary disasters including rainstorm, high temperature, drought, landslide, debris flow, forest fire, etc.	Provincial Forestry Department, County Forestry Bureau, Bureau of Meteorology, Cooperatives	First five years of project implementation	Warning notice or report providing to private enterprises and smallholders
	Implement forestry insurance with policy support addressing natural disasters, harmful biological disasters, accidents, epidemics, diseases etc.in Project area	Provincial Forestry Department, County Forestry Bureau, Insurance company	Annually	Insurance compensation benefiting the smallholders in case of disasters
Sub-Component 1.3: Key Infrastructure Investments for cultivating the selected high value chain crops	Jointly develop a plan on Infrastructure investments for production	Provincial Forestry Department, County Forestry Bureau, Transport Bureau, CDIC	First year of project implementation	Infrastructure investments plan for production
	Develop vehicle-accessible roads and production roads (or passageways) within the plantations	County Forestry Bureau, Water Resources Bureau, Transport Bureau, CDIC VIG	First three years of project implementation	Vehicle-accessible roads and production roads built providing access to the stallholders
	Improve and develop irrigation water supply systems, including the development of ponds, pumping stations, canals and pressure pipes, and fertigation systems	County government, Forestry Bureau, Water Resources Bureau, Electricity Bureau VIG	First four years of project implementation	Irrigation water supply systems built providing access to the stallholders

Sub-Component 1.4: Enhancing Carbon Sequestration and Monitoring & Accounting	Enhance carbon sequestration through improved management and the transformation of the harvested biomass into durable goods, or replacing high emission materials	County Forestry Bureau, CDIC, public or private enterprise & Cooperatives, smallholders	Six years of project implementation	Carbon sequestration enhanced
	Develop & Implement training plans on carbon monitoring and accounting	Provincial Forestry Department, County Forestry Bureau, CDIC, County WF, public or private enterprise & Cooperatives, smallholders	First year of project implementation	Awareness raising and capacity building of smallholders trained in carbon monitoring with focus on women
	Measure and monitor carbon on the selected plots of bamboo and Camellia plantations with both improved management and management as usual in the county	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise	First year, Mid and final stages of project implementation	Monitoring report of the enhanced carbon
	Develop a model for proper monitoring and accounting of carbon uptakes and emissions for bamboo and Camellia plantations	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise	First year, mid and final stages of project implementation	Accounting report of the enhanced carbon

Component 2 Enterprise Led Business Development

Sub-Component 2.1: Inclusive Business Plan Development	8 inclusive business plans development, appraisal, and approval	Enterprises involved and CIDC, County Forestry Bureau	First Year of Implementation	Business plans approved
	7 counties' proposals preparation and agreement	CIDC, County Forestry Bureau and Provincial Forestry Department	First Year of Implementation	Proposals agreed
Sub-Component 2.2: Productive Infrastructure	Enhancement of primary processing capabilities	Enterprises involved and CIDC	Year 1-3 of project implementation	Establishment and operation of storages and primary processing points with equipment
	Enhancement of enterprise processing capabilities	Enterprises involved and CIDC	Year 1-3 of project implementation	Establishment and operation of factories with processing lines and equipment
	Development of public and enterprise productive infrastructure in industrial parks, such as heating systems to provide heat sources for production,	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise	First three years of project implementation	productive infrastructure built

	workshops to expand production, warehousing and exhibition center			
Sub-Component 2.3: Product Development & Marketing	Marketing for oil tea by 1 sightseeing park and 1 science museum	Enterprises, CIDC and County Forestry Bureau	Year 1-3 of project implementation	Establishment and operation of the park and museum
	Marketing for bamboo products 2 bamboo exhibition centers	Enterprises, CIDC and County Forestry Bureau	Year 1-3 of project implementation	Establishment and operation of the exhibition centers
	Marketing for medicinal herbs by 1 exhibition center and 1 e-commerce platform	Enterprises, CIDC and County Forestry Bureau	Year 2-3 of project implementation	Establishment and operation of the exhibition center and the e-commerce platform
	Develop the methodology on carbon footprint labelling of major bamboo products and tea oil products of Camellia	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise	First year of project implementation	Methodology on carbon footprint labelling of major bamboo products and tea oil products of Camellia
	Test the abovementioned methodology and apply carbon footprint labelling on selected bamboo product and tea oil product of Camellia	Provincial Forestry Department, County Forestry Bureau, CDIC, public or private enterprise	First five years of project implementation	Carbon labelling implemented for the selected bamboo product and tea oil product of Camellia

Chapter 3: Project Implementation Structure and Planning

3.1 Implementation Structure

Lead Project Agency. The project will be executed and coordinated by the Provincial Forestry Department (PFD) in Hunan. A Provincial Project Management Office (PPMO) will be set up in the PFD. Specifically, the Provincial Forestry Fund Station (PFFS) will undertake the day to day coordination and implementation management of the whole project. While the Project Director may be assigned to a senior official in PDF, the PPMO in PFFS will be staffed adequately with the key functions necessary for the management of the project, including but not limited to an executive project director, a planning and M&E Officer, a focal point for SECAP, gender and youth businesses, a financial officer and accountant, and a knowledge management officer, among others.

Inter-agency Coordination arrangements will be established to review both strategic and operational aspects of the HGDP as well as ensure implementation of China environmental and social safeguards policy. An Inter-departmental coordinating mechanism will be established at the provincial level for this purpose composed of departments including forestry, finance, development reform at the least. At the county level, the Vice Governor will lead the county level coordination with member agencies including forestry, finance, agriculture and rural affairs, development reform, water, land, environment protection. This mechanism will facilitate the implementation of the HGDP and ensure that the assistance from other agencies is provided in a timely and effective manner such as the agriculture input subsidies, technical assistance for the plantations, the infrastructure investments The Women's Federation (WF) and Youth League (YL) in the counties will be assigned responsibilities in supporting women and youth related activities and leverage opportunities for further supporting women and youth in the project area.

County Project Management Offices: County Project Management Offices (CPMO) will be established at the County Forestry Bureau (CFB). Responsibilities of the CPMOs will include beneficiary targeting and implementation planning, overseeing business planning, coordinating with CDICs for value chain investment from either government or private sector at the farm level. In addition, the CPMOs will undertake generic project management tasks such as financial management, procurement, knowledge management and project monitoring and evaluation etc. CPMOs will be staffed adequately with the key functions necessary for the management of the project, including but not limited to an project director, a planning and M&E Officer, focal points for SECAP, gender and youth businesses, a financial officer and accountant, and a knowledge management officer, among others. Given the limited staffing if CFB however, it is acceptable that some less critical functions may be outsourced through short-term consultant or service providers, but should be handled as an integral part of the CPMO function. Relevant technical bureaus in the counties will also be mobilized to support implementation of the related project activities. Specifically, county Women Federation (WF) will be assigned as a deputy director member of the CPMO.

Department/Bureaus of Finance: The Department/Bureau of Finance (BOF) at Provincial/County level will be responsible for administering project resources, including the IFAD loan and counterpart funds at the responsive levels.

County Development Investment Company (or similar public entity) in the project counties has unique role in the project. Being state-owned investment window of the county government, CDIC will act as the de-factor implementing agency of the project in majority of the investment activities. CDIC receives the IFAD loan through BOF and will

work in partnership with the CFBs to coordinate their efforts in the production and processing aspects of the selected value chain in each county. Under the guidance of CFB, CDIC investment will maximize engagement of and benefit to smallholders as the targeted beneficiaries of the project.

Partnership with Women Federation and Youth Leagues: The Women Federation (WF) and Youth League (YL) in the counties will be assigned responsibilities in undertaking women and youth related activities designed for the project. The Chairperson of county Women Federation will be assigned the role of deputy project director at the county CPMO, with a specific role in overseeing the gender related aspects and activities of the project, and facilitating gender transformation in the project context.

Village Implementation Groups (VIGs) will be established in the administrative villages where the three value chains are involved, especially where production is supported by project component 1. VIGs, with the guidance of township government office, will support the project implementation in functions such as beneficiary engagement (including ethnic group participation) and targeting, monitoring and grievance redress, facilitating households partnership with enterprises, O&M of project supported public infrastructure at community level, among others. Each VIG shall be headed by the Chief of the village committee and composed of 7-8, including 4-5 farmer representatives from different levels of household well-being with at least half from the community-recognized vulnerable households. Women will be no less than 50% in the VIG and youth especially young farmer entrepreneur will have at least one representation seat at VIG.

3.2 Project Planning and reporting

3.2.1 Planning

AWPB. Planning for the HGDP project will follow the current practices for IFAD-funded projects in China, which are on annual basis through the development of Annual Work Plan and Budgets (AWPBs). AWPB is a planning and management tool for the project implementation. It will include, among other things, the financial and physical progresses that have been made, a detailed description of planned project activities over the period, a procurement plan over the period, and a plan for implementation of activities by semester. AWPBs will also reflect the recommendations made by the last supervision mission as well as corresponding actions taken and their effect. In addition, AWPBs will link to M&E output indicators, stating annual targets and achievements versus overall project targets (%progress). The PPMO will consolidate the AWPBs developed by each CPMO and submit it to IFAD for "no objection" review for each project fiscal year before its implementation.

AWPB preparation. AWPBs should be drafted by PPMO and related implementing partners through a participatory approach, based on the demand of potential beneficiaries. CPMO and the implementing partners at county level should be aware of available resources in the development of AWPBs. Full consultations with the upper bureaus and departments of the same line will be necessary before submitting the draft AWPBs to CPMOs. The CPMOs should consult with relevant agencies in finalising the draft AWPBs prepared by the IAs and submit them to the PLGs for review and clearance, prior to submitting them to the PPMOs. PPMO should consult with relevant departments in consolidating the AWPBs and submit them to the provincial PLG for review and clearance before submitting them to IFAD for "no objection" review. The first AWPB should be developed and submitted to IFAD before start-up of the project. From the second year on, PPMO will submit the consolidated AWPB to IFAD for review and no-objection 60 days prior to start of each year of implementation. If no comments are provided by IFAD on the AWPBs within 30 days after

receipt, the AWPBs will deem approved by IFAD. Project implementation should be in compliance with the AWPBs substantially in the form cleared by the PLGs and IFAD. If required, the CPMOs, through the PPMO, may propose adjustment of AWPBs during implementation, which will become effective upon approval by the PPMO and after obtaining no objection from IFAD.

Linkage with M&E and KM. Annual work plans and budgets need to be formulated with a view to achieving the project's intended results, and cognizant of existing challenges and opportunities. Therefore, an important basis of formulating AWPBs is the project Logical Framework (logframe) that sets up the project outputs, outcomes, and objectives. Their fulfilment will be monitored and evaluated by the monitoring and evaluation (M&E) system through the measurement of indicators that have been set up correspondingly. M&E results will indicate if the implementation of project activities generate appropriate outputs and outcomes towards the achievement of objectives. Therefore, they will be used as guidance for developing the next AWPB. It is equally important to use insights from the knowledge management system to inform AWPBs: for example, when lessons have been learned about what works and what does not, or if the M&E system indicates that implementation of activities did not result in progress towards the achievement of results, then activities may have to be adjusted, budgets reallocated or implementation modalities improved when formulating AWPBs. Alternatively, the project logframe will need to be revised.

AWPB structure. The PPMO will prepare the AWPB Report using the following table of contents:

- A. Introduction
 - project outline
 - target group
 - internal and external context changes if any
 - follow-up on agreed actions recommended by last supervision mission
- B. Implementation Progress and Performance for the past year
 - physical and financial progress
 - beneficiaries
 - key constraints and lessons learnt
- C. Work Plan and Budget for the Coming Year
 - overall strategic focus
 - work plan and budget by component
 - beneficiaries
- D. Procurement Plan
- E. Implementation support needs

Annex:

1. Excel-annual work plan and budget (by activities and financiers)
2. Excel-annual procurement plan
3. Planned beneficiaries disaggregated by focused target groups

3.2.2 Reporting

Progress reports are to be prepared semi-annually and should address (i) quantitative and qualitative progress made in implementing the Project and achieving its objectives; (ii) problems encountered during the reporting period; (iii) steps taken or proposed to be taken to remedy these problems; and (iv) the proposed programme of activities and the progress expected during the following reporting period. Sufficient information must be made available about what money is spent on, how much is spent on what, and what the results are.

Preparation of Progress Reports. Each County Program Management Office (CPMO) will submit semi-annual progress report to PPMO. The reports will record the financial and physical activities against Annual Work Plan & Budget (AWPB) targets. The

PPMO will prepare the reporting formats and contents to be submitted and be responsible for the compilation of semi-annual and annual reports. The reports will be submitted to IFAD with the format and content described in the following section, no later than two months after the end of each reporting period. The Project Progress Report will have the following format and content.

Format of Progress Reports:

- Section A – Introduction: A brief summary of the Project Objectives and the design features as is given in the Project Design Report will be presented in this section. It will be written once and used for all future Progress Reports, with minor changes as may be necessary.
- Section B - Executive Summary: A brief summary of the content of the report will be presented in this section, highlighting performance during the project period and to date; trends; explanations for large variations from the initially set Project Design Report targets and objectives; problems and issues, if any; and proposed action during the next reporting period and beyond.
- Section C - Detailed Report: This section will include the following: (a) Descriptions of the Progress made during the reporting period and to date (by components, sub-components and activities); (b) Sources and Uses of Funds Statement; (c) Statement of Use of Funds by Expenditure Type and by Components; (d) Reconciliation of the IFAD funded Special Accounts; (e) Output Monitoring Report; (f) Procurement Report; and (g) Other Relevant Reports including implementation of safeguards / ECSMP. The information contained in the above statements and tables will provide the linkages between physical and financial progress.
 - i) Progress Made by the Project: This part will be a summary of the most important aspects of project implementation to date including any special issues that have surfaced and with suggestions for resolution. It will concisely describe and highlight: progress of all key project components including physical works, implementation and project output, actual costs incurred vs. estimates, financing received from IFAD and government of China, as well as major expenditures, large procurements carried out and disbursement performance, critical studies undertaken, technical assistance and training received. It will assess performance in reaching and benefiting the intended target groups, in particular the poorer, as well as gender and ethical equity and youth in participation and benefits.
 - ii) Sources and Uses of Funds Statement for the Reporting Period and Year-to-Date. This will indicate the opening cash and bank balances, listing of the sources and amounts of funds received and expenditures by project component and in line with the IFAD loan/ grant withdrawal schedule in the respective agreements, and the cash and bank balances. It also shows cumulative figures to date side by side.
 - iii) Statement of Use of Funds by Expenditure Type - These tables list expenditures by component, by expenditure type, and by disbursement categories. An important feature of these tables will be the comparative listing of the actual expenditure figures with the estimates from the latest Annual Work Plan & Budget (AWPB) and the showing of the variances and appropriate explanation for each such variance. The total estimated base costs of the project components and expenditure categories as per the appraisal report will also be shown side by side.
 - iv) Output Monitoring Report - Physical progress and expenditures in relation to such progress will be presented here. The output indicators will be taken from the physical performance targets set at appraisal. Here again, actual and targets set at appraisal will be compared and explanation provided for deviations.

- v) Procurement Report (Updated Procurement Plan) - The Procurement Report consists of the approved Procurement Plan at grant effectiveness and duly updated and all the key procurements made on behalf of the project and their status as at the end of the reporting period. The Procurement Report will also include all key procurement of works, vehicles, equipment, goods and consulting and other services undertaken by the project since project start up.
- vi) Other Relevant Aspects - Status on the following aspects of the project will be included in this part of the progress report:
- Organization and Staffing: The progress report will include the latest organization chart of the Project. The Chart will give the names, titles, and gender of all senior staff and any changes in the senior management and project compensation details will be reported.
 - Accounts and Audit: This part will describe the status of the books of accounts, preparation of quarterly accounts, readiness for the accounts for annual audit and progress or completion of the audit (during the appropriate quarter). Where audits have been completed, key findings, observations, qualifications, and recommendations of the auditors will be provided in this part of the progress report.
 - Compliance with Conditionality/Legal Covenants: Status of compliance with all stipulated conditions included as covenants in the loan agreement will be given. Problem relating to non-compliance of any legal covenant will also be highlighted
 - Compliance with safeguards / ECSMP

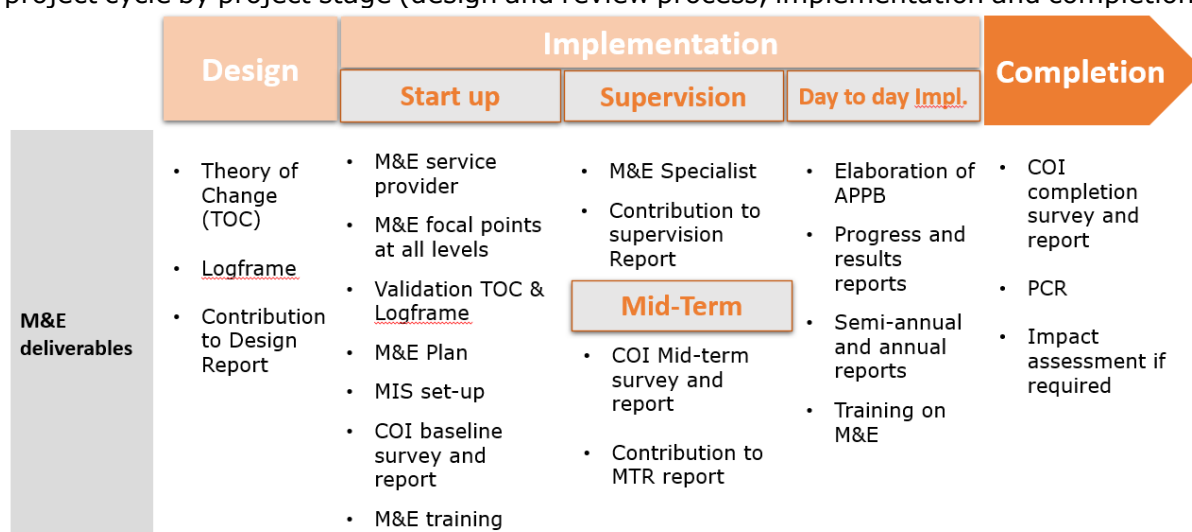
Chapter 4: Project Monitoring and Evaluation (M&E)

4.1 Monitoring & Evaluation

Monitoring and Evaluation (M&E) system for HGDP will be developed as a tool for effective project implementation management. PPMO will lead the process with the assistance of IFAD within the first year of the project. The M&E system will enable IFAD, the Government and the stakeholders to monitor Project's internal performance. The objective of the tool is to collect reliable data and information for measuring performance and progress towards achievement of results; and to provide information about success and failures, so that corrective measures can be taken for successful implementation of project activities. It will be also used as a learning tool to provide information for critical reflection on project strategies and operations and supporting decision-making at various levels as a basis for results-based management.

Setting up the M&E system. HGDP will establish an effective M&E system from PPMO through county PMOs down to the VIGs. The M&E system is the set of planning, information gathering and synthesis, reflection and reporting processes, along with the necessary supporting conditions and capacities required for the outputs of M&E to make a valuable contribution to decision-making and learning. The system will operate in line with IFAD's M&E guideline and building as much as possible on provincial existing M&E systems, statistics and databases. The M&E system for HGDP will be based on the project ToC and Logframe, in which a series of key performance indicators (core indicators and project specific indicators) have been defined in project design report. In addition, the M&E system will include additional indicators related to monitoring of safeguards implementation (see SECAP review note & ECSMF list)

A **M&E Plan** will be developed to guide M&E processes within the project. The M&E Plan to be developed at the beginning of implementation will detail the scope, organisation and contents of the M&E system; roles and responsibilities; a plan for data collection, analysis, reporting, use and management; timeline for M&E-related activities; staffing and capacity building plan; budget; etc.; The M&E Plan will also set out guidelines for progress monitoring of implementation as well as evaluation of the performance of the Programme in relation to the indicators in the Project Logframe. The below graphic presents the different M&E-related requirements and deliverables expected throughout the HGDP project cycle by project stage (design and review process, implementation and completion).



4.1.1 Monitoring

Implementation monitoring will focus on the project outputs, the physical and financial progress of activities. Population and household-based monitoring indicators need to be disaggregated by sex, age, ethnic minorities, and activity area or value chain, where applicable. For this purpose, monitoring data should be collected at the grassroots level (VIG), depending on the nature of indicators. In general, the state of benefits and participation at the levels of households and individual beneficiaries will be undertaken through the grassroots recording and reporting by VIGs and producer cooperatives.

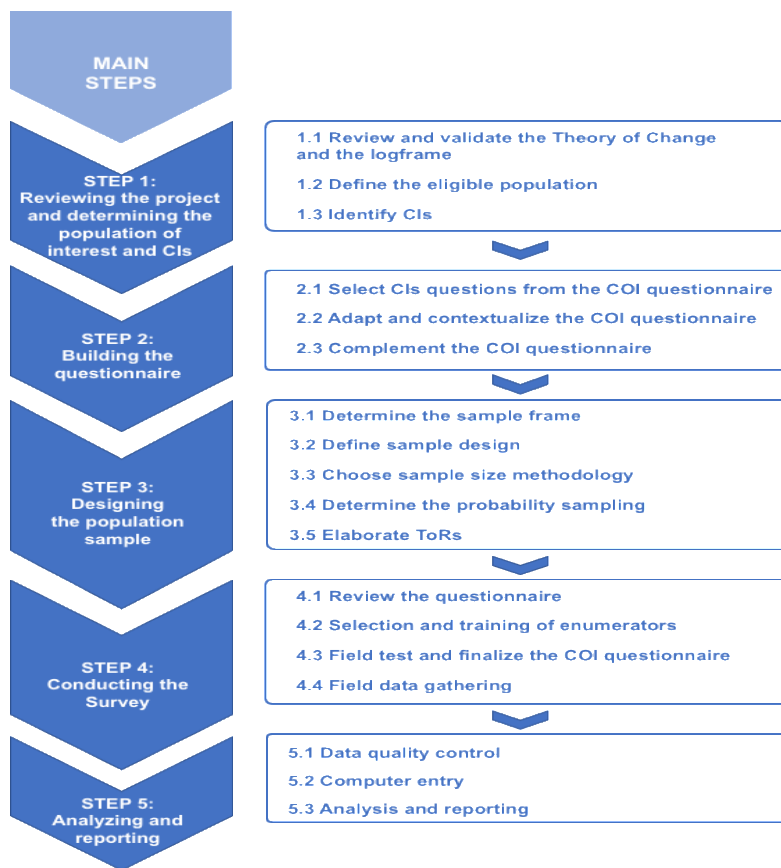
Rural business entity capacity development and related improved performance will be recorded and reported by implementing partners, and through an annual survey of all programme-supported agribusiness entities. The CPMOs will organise the collection of data in accordance with the agreed indicators and report annually through the provincial PMO to IFAD. For this purpose, an operational data collection system of monitoring indicators will be established from the grassroots level (VIG and cooperatives) up to the PPMO. Frequency of reporting and responsibility is further defined in the appropriate log-frame columns.

Semi-annual Project Progress Report. On semi-annual basis, CPMO will submit progress report to PPMO. The reports will record the financial and physical activities against Annual Work Plan & Budget (AWPB) targets. The PPMO will prepare the reporting formats and contents to be submitted and be responsible for the compilation of annual reports. The annual report should address (i) quantitative and qualitative progress made in implementing the Project and achieving its objectives, (ii) problems encountered during the reporting period, (iii) steps taken or proposed to be taken to remedy these problems, and (iv) the proposed programme of activities and the progress expected during the following reporting period. Sufficient information must be made available about what money is spent on, how much is spent on what, and what the results are. The progress report will be submitted to IFAD no later than two months after the end of each reporting period.

4.1.2 Evaluation

To evaluate the results of outcome, objective and goal indicators as defined in the Project Logframe, the project will conduct three rounds of outcome surveys (base-line, mid-term and end-line). The surveys will consist of two modules, namely household survey and enterprise survey. The three-wave surveys will be conducted in compliance with IFAD Core Outcome Indicator (COI) Measurement Guidelines, which provide a step-by-step explanation on how to plan for, design, conduct and analyse Core Indicators (CIs) outcome surveys over the project cycle. To avoid having separate surveys for the Core Indicators and for the other project-specific indicators, the guidelines are meant to guide the collection of data on all outcome indicators (core and project-specific) at baseline, mid-term and end-line. Chart 1 presents main steps to develop and conduct a project-specific COI survey.

Chart 1: Main steps to develop and conduct a project-specific COI survey



The surveys will be conducted by adopting the following approaches:

- **Sample-based survey.** A representative sample of the desired population⁴ should be defined prior to conducting the survey.
- **Quantitative survey.** Collect data through quantitative surveys in order to measure and quantify the effects of project’s interventions.
- **Comparison group**⁵. Sample-based surveys are intended to collect data on two differentiated groups over time: the treatment group (sample of beneficiaries) and the comparison group (sample of non-beneficiaries). Attribution can only be determined through surveys contemplating the existence of a treatment and a comparison group reflecting the situation with and without project’s intervention. Note that the comparison group is mandatory only at the project completion stage⁶.

The annual outcome survey (AOS) is a simple household survey that will be undertaken annually by project staff and will cover a small sample of at least 300 households selected randomly. The survey will be conducted exclusively in villages targeted by the project or receiving project interventions, and will include both project beneficiaries and non-beneficiaries (the latter used as control group). Overall, the exercise is expected to take no more than 3 months and can be implemented by project staff and extension officers, with or without external support. The main objectives of the survey are to: (i) measure changes happening at the household level in terms of livelihoods and food security during

⁴ The desired population is a generic term representing the population from which the sample is drawn. For instance the desired population corresponds to the group of beneficiaries at baseline (when beneficiaries are identified).

⁵ **The Comparison group** is the name given to the group of individuals not receiving the treatment or intervention in a quasi-experimental design, while the **control group** is the name of the group not receiving the treatment in an experimental design such as Random Control Trial. The COI measurement guidelines propose using a quasi-experimental design.

⁶ Comparison groups are not mandatory at baseline and mid-term stages. Surveys including comparison groups at baseline and mid-term may be conducted if resources are available since they provide additional information for the analysis.

the project life; (ii) assess targeting efficiency; (iii) provide evidence of project success or failure; and (iv) provide timely performance information necessary to undertake corrective actions.

The AOS will provide information on “why” and “how” some outcomes were or were not achieved. The project will use the standard AOS questionnaire as the main frame for conducting the survey and will modify it accordingly as per the project thematic areas of intervention. The AOS will be implemented starting from the end of PY2.

4.2 M&E organizational arrangement.

The M&E Officer designated in the PPMO and CPMOs will be responsible for monitoring project implementation, sharing progress, experience and lessons learnt semi-annually and annually with all stakeholders in order to improve project implementation and finally achieve project objectives. In the project start-up workshop, a section for M&E training will be provided by IFAD M&E specialist or officer to the PMO M&E staff, the latter will then train relevant officers and staff of implementing partners and VIGs. During project implementation, M&E training will be held on as-required basis, but at least once a year before MTR.

The designated M&E staffs of CPMOs, under the guidance and support of the provincial M&E Officer, will arrange the collection of monitoring data in accordance with agreed indicators. They are responsible for conducting an initial quality review on data collected before reporting to the PPMO, after consolidation at county level. VIG members will assist in collecting the household-level M&E data where required, disaggregated by gender, age, and by activities. Implementing partners will be involved in the collection of M&E data concerning institutions and staff training. The PPMO will review and consolidate M&E data reported by CPMOs and report semi-annually and annually to IFAD. The PPMO is also encouraged to develop complementary data collection and quality assurance tools and methods as needed. The project will engage a third party on a retainer contract to support the PPMO on a continuous basis for some weeks each year with data analysis, report preparation and baseline / midline / endline surveys. The third party will ensure analysis of surveys is properly done and presented in a useful and applicable manner, and do further data analysis, as needed. In addition, the third party shall analyze data from the MIS system to understand underlying causes of well-performing townships, villages, companies, etc. and share positive lessons with project management at various levels. The below table presents the responsibilities and the basic results reporting mechanism for HGDP project.

Result hierarchy	Tool of data generation	Frequency	Presentation	Responsibility
Impact and Outcome	HH and enterprise surveys	3 rounds Y1 – Y4 – Y6	Survey reports; Logframe	Third party (contracted), PMOs
Output	MIS system: PMO collection	Semi-annually reported to IFAD	Progress report and MIS automated tables	PPMO, CPMOs, VIGs
Financial flow	MIS system: Self-reporting & PMO collection	Quarterly reporting to PPMO	MIS automated tables / charts Dashboard	PMOs

A web-based Management Information System (MIS) will be developed to integrate information regarding project management, financial management and physical progress, allowing real-time reporting. All project related data will be recorded in the MIS, starting from the village and county level upwards, so that no parallel data systems have to be maintained and reconciled (in Excel or other offline mechanisms). Data in the MIS will be accessible at all levels of the HGPD programme, which means that PPMO and CPMO staff can log into the system and see data that is relevant to their county.

The project will design the MIS tailored to its specific needs, building on positive past experiences from on-going IFAD-financed projects. The MIS system will basically have three sub-systems that integrate information and allow real-time reporting: Project Management, Financial Management, and Progress Monitoring.

Operational Results Management System (ORMS): The ORMS is a full-fledged online system in IFAD that builds on interconnected templates for the online presentation, analysis, reporting, and approval of project design, supervision and completion documents. Although, the data entered into the system for the project will be done at IFAD level, yet the project will have to provide this data on an annual basis. thus ensuring that the performance of IFAD operations is measured across the results chain, i.e. at the output, outcome and impact levels. The M&E unit will compile the progress of all indicators under the project log frame and send it to IFAD no later than the 31 January of the following year.

4.3 Complementary M&E activities

In addition to the above, the project is encouraged to develop other parallel in-depth monitoring and evaluation activities. For instance, project household tracking survey (by tracking a small number of selected households to obtain relevant information for comparison before and after the project interventions), control group survey, individual case analysis (an in-depth analysis of an individual agribusiness entity, or farmer, or youth/women entrepreneur), thematic research, etc. Findings through these activities can provide a multi-perspective reference for project management, and also can capture more comprehensive project effectiveness.

Chapter 5: Knowledge Management and Sustainability

5.1 Knowledge Management

IFAD defines Knowledge Management (KM) as a set of processes, tools and behaviours that connect and motivate people to generate, use and share good practice, learning and expertise to improve IFAD's efficiency, credibility and development effectiveness⁷. KM as a management tool will help the project to build practical and actionable knowledge and know-how that lead to improved project performance and results, and supports innovation, scaling up and country-level policy engagement. Knowledge Management (KM) will be an integral part of HGDP to ensure that project implementation is a continuous learning process in which quantitative and qualitative data will be compiled, analysed and disseminated as good practices and lessons learned, together with thematic studies and stories from the field that document successful approaches, explain challenges encountered and results achieved. The Project M&E system will form the foundation of KM and learning system and will thus be a primary instrument of information capture and storage, based on the indicators detailed in the results framework.

The specific **objectives of the project KM** are as follows: 1) improve project performance and results; 2) develop knowledge products and raise visibility; 3) support innovations and trigger action that contributes to effective scaling-up; 4) raise awareness and engagement of key stakeholders; 5) contribute to policy engagement in the sector development

Main KM activities/approaches could focus on, but not limited to:

1. capturing and documenting experiences, lessons, and successful cases resulting from project activities, especially regarding the project's innovative models and approaches that could be replicated and scaled-up, inform policy-making or shared with other developing countries through South-South and Triangular Cooperation (SSTC);
2. study tours, exposure and exchange visits, for peer learning and sharing knowledge;
3. organizing and participating in workshops to share knowledge, innovations and best practices; and
4. well designed and operational information management systems, including electronic archives that enable easy access to data, reports and other documentation.

Key **knowledge deliverables** are suggested but not limited as follows: 1) progress reports: the project will generate progress report on semi-annual basis, which shall be served as Knowledge product to inform interested stakeholders on projects progress, achievements and lessons learnt; 2) three wave outcome survey reports: the reports will assess the project impact and draw experiences for subsequent implementation and for other IFAD projects; 3) documented good practices and lessons learned which shall be disseminated through various channels and media platforms, including interviews, case studies, news clipping, video clips, and television programmes; 4) thematic study reports and publications on lessons learned from project implementation; 5) workshops organized or participated to share positive lessons, highlight areas that face challenge during implementation; 6) exchange visits to facilitate cross-learning of counties/sibling IFAD projects in other provinces and share good practices with other interested stakeholders; 7) a systematic Management Information system (MIS).

KM responsibilities

⁷ IFAD [Knowledge Management Strategy and Action Plan \(2019-2025\)](#)

PPMO and CPMOs shall designate KM focal points/Officers when in the process of PMO establishment. In some cases, the M&E focal points/Officers in PMOs will also cover KM responsibilities. KM focal points/Officers within the PMOs will be responsible for all KM activities and ensure KM related activities included and budgeted in AWPBs. Collaboration with relevant research and learning institutions led by PPMO to design and undertake studies and analyses as well as communicate lessons learnt will be encouraged.

A draft KM plan has been provided in the appendix section. After start-up, the KM plan will be completed and refined with support from IFAD. The KM strategy and plan will be validated by project stakeholders through a national workshop. The workshop will be an opportunity to refine the thematic focus and dissemination strategy of policy relevant studies, but also to better understand the key information needs for HGDP to be successful.

A knowledge management and communication (KMC) strategy, and related action plan will be formulated before start-up workshop. Besides extracting experiences from the ground, the strategy and planned actions would address knowledge and learning demands of PMOs as well. PMOs will participate and be closely consulted during the formulation process. The strategy and the action plan will include which thematic areas of learning the project will be focusing on, and outline how the knowledge generated will be disseminated through the most appropriate channels. Suggested contents for the KMC strategy and action plan are given as below.

Contents for the KMC strategy and action plan

I. Introduction

- 1) KM Definition
- 2) Project KM Goal, Objectives, and activities

II. KM Role in HGDP

- 1) Knowledge management structure
- 2) SWOT analysis in the KM context
- 3) Monitoring of KM activities
- 4) Innovation & Experimentation

Annex: Knowledge management action plan (to be updated on annual basis)

▪ **Template for Knowledge Management action plan**

Activities and themes	Expected outcomes	Target audience	Output	Dissemination Channels/Events	Timeframe	Action by	Budget
Example : Videos on climate change adaption -Theme : climate change adaption	Best practices of the project three selected value chains adaption to climate changes	Potential and existing beneficiaries Practitioners in the three value chains Provincial and County Bureau of Forestry	Number of videos (X mins/each) on best practices of the project three selected value chains adaption to climate changes	Social media: wechat, weibo Story in IFAD website Local government websites	By Q4 2025	PPMO/XX CPMO	CNY XXXX
....							

Useful KM tools and templates can be accessed on the IFAD KM Resource Centre, accessible through this link: <https://ifadkmcentre.weebly.com/integrating-km-in-projects.html>

5.2 Exit strategy

The exit strategy is appended to Annex 10 of the PDR. The PMOs shall adapt and develop it into implementable actions, especially when the project is entering the post-MTR implementation stage.

5.3: Scaling up plan and policy intervention plan

5.3.1 Policy intervention

HGDP's experience of working closely with CDICs to develop agro-enterprise parks and, in turn their ability to attract private sector investments will provide important lessons for other counties wanting to grow private sector engagement in the agro-forestry sector. The experience can guide the State, Provincial and County level Governments regarding the most effective strategies for rural revitalization. HGDP can guide the Government on which policy element has been the most effective in helping to meet the Government objectives and formulate policy based on the experience. Another key area in which HGDP can assist in helping to refine policy and regulation is regarding the mechanisms for measuring and tracking carbon sequestration which the project is piloting. In addition, INBAR will assist in developing a policy and institutional coordination framework for the bamboo sector. Given the focus of HGDP on enhancing employment for women in the private processing sector, there is also considerable scope for policies to reduce gender inequality in the labour market and the need to have a supportive policy for working women

The PPMO will outline plan for possible thematic areas and entries that allow potential policy contribution of the project, and develop action plans for this purpose. Policy interventions shall closely associate with the project M&E and involve all stakeholders, and related inputs are better generated from evidence so to be convincing and value added.

5.3.2 Scaling up

There is considerable scope in the HGDP for scaling up the best practices coming out of and innovative ideas being introduced in the project. The types of innovative aspects that are expected to be implemented by the Project are given as examples below:

- Consolidating the approach to smallholder sustainability: IFAD is expecting to further strengthen the Government's graduation approach in China which has moved from providing social safety net payments to one where the smallholders and the more vulnerable will be supported through production support, employment creation and access to markets. HGDP will facilitate the scaling-up of models of production in which the cooperatives can help smallholders exercise the option of securing either long-term lease for their land and a share in the dividend income. Evidence suggests that the creation of diversified sources of income and employment has helped to move people out of poverty and has enabled them to secure more sustainable livelihoods. HGDP intends to continue to scale up this approach through the selection of high value-added crops which are most produced by the smallholders such as the three selected value chains.
- Innovative models for private sector participation to inclusive and green value chain development: HGDP will be supporting a range of models in which CDICs will be experimenting with some innovative partnership and financing models. The first of these is designed to build strong and direct partnerships with smallholders through their cooperatives. CDICs and State Forestry farms will experiment with establishing arrangements through long-term lease of land or sharing of dividends with farmer cooperatives for enhanced production and buy-back for medicinal herbs

and plants and Camelia oil tea such as in Hengshan. In several counties, private enterprises will enter into an arrangement with farmers under which it will take over the production risk and will operate and manage the farms and provide all inputs to facilitate adoption of climate adapted and sustainable practices, including seedlings, organic fertilizers, and technical assistance for proper farm management including pruning, weeding, irrigation, etc. Mechanisms will be designed to empower smallholder farmers and their cooperative to negotiate agreement and ensure transparent stakeholder engagement and feedback mechanisms.

- Introduction of innovative processing technologies: There are a host of new technologies which are available in the market or are in the research and development phase which HGDP will help to test and disseminate. These include new technologies for extraction of Camelia oil in a manner which enhances its quality and is more cost-effective. There are also Innovative technologies for improving Bamboo germplasm and silviculture. The Project will also help to mitigate plastic pollution through substitution of plastics through increased bamboo use which is one of the most promising species due to its fast growth, its large distribution and versatile applications with over 10,000 documented uses. In this regard, the Project will collaborate with the International Bamboo and Rattan Organization (INBAR) and China's Bamboo as a Substitute for Plastic Initiative.
- Improved climate smart plantation practices and Piloting Carbon Monitoring: Project expects to collaborate closely with the Carbon Sequestration Centre within the PFD and the Carbon Platform at the provincial level in Hunan. Together with them, HGDP will pilot a carbon monitoring methodology and assess the potential for carbon trading and securing additional benefits for the smallholder bamboo producers. There is considerable potential for scaling up this initiative if the properties of bamboo as a store of carbon are properly understood and a mechanism developed to provide credits for it. The China Certified Emission Reduction (CCER) has been reopened recently and the first set of carbon methodologies including afforestation has been launched. While, none of the three selected value chain crops currently fulfil the requirement of the new CCER afforestation methodology, these could open up and provide opportunities for mitigation and generating economic benefits. Meanwhile, the schemes of forest carbon ticket and carbon inclusiveness aiming for carbon neutrality have been developed in some provinces to promote local carbon trading, based on the new policy titled "*Plan for Deepening the Reform of the Collective Forest Tenure System.*"⁸ HGDP can help to build technical capacity of government and private sector bamboo owners to estimate their carbon credit potential using advanced technologies. Furthermore, such monitoring will enable entities to review and improve farming practices against their impacts on carbon storing. For example, INBAR has developed a Mobile App that supports effective inventory of different types of bamboo species with modest training of local experts. In addition, the Project will enhance smallholders and government staff capacity in Measuring, Reporting and Verification (MRV) of carbon credits. The Project will also help enterprises and farmers use the "Carbon Label" to develop a valued global product that facilitates the export of its commodities.

⁸ Issued by the central government on 25th September 2023.

Chapter 6: Project Costing and Financing

The project costing and financing details are already elaborated in the Excel file developed by the Provincial Forestry Department for the project, with detailed tables by county, by component/activity, by year and by financier. The tables here will only present the total project cost summary, by component, financier and disbursing categories. The excel tables will be the essential reference for specific implementation and development of AWPBs, or for future adjustment if required.

The county specific cost tables in Excel will be attached as annex to the PIM, when the final PIM is to be distributed by the PPMO to the counties.

The tables attached here only showing the summary of the project by component, category and financiers.

Summary Cost table 1: Programme/project costs by component (and sub-components) and financier

People's Republic of China
- Hunan Green Development Project
Components by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Smallholder Integration in Value Chains													
1. Developing Inclusive & Sustainable Production Management Plans	-	-	288	100.0	-	-	-	-	288	0.1	29	210	49
2. Implementation of Sustainable & Climate Smart Management Practices	13 406	12.3	42 870	39.2	16 412	15.0	36 725	33.6	109 413	46.5	2 506	101 708	5 199
3. Key Infrastructure Investments for cultivating the selected high value chain crops	4 389	17.5	855	3.4	-	-	19 786	79.0	25 030	10.6	-	24 723	307
4. Enhancing Carbon Sequestration and Monitoring & Accounting	150	27.5	-	-	-	-	397	72.5	547	0.2	-	537	11
Subtotal	17 945	13.3	44 013	32.5	16 412	12.1	56 908	42.1	135 278	57.5	2 535	127 178	5 566
B. Private Enterprise Led Business Development													
1. Inclusive Business Plan Development	0	-	1 808	100.0	-	-	-	-	1 808	0.8	181	1 320	307
2. Establishment of Productive Infrastructure	3 068	3.6	31 779	37.5	-	-	49 959	58.9	84 806	36.1	-	83 792	1 014
3. Product Development & Marketing	301	4.9	-	-	-	-	5 890	95.1	6 192	2.6	-	6 171	21
Subtotal	3 370	3.6	33 587	36.2	-	-	55 849	60.2	92 806	39.5	181	91 283	1 342
C. Management and capacity building													
1. Project management and capacity building	4 715	66.3	2 400	33.7	-	-	-	-	7 115	3.0	240	6 137	738
Total PROJECT COSTS	26 030	11.1	80 000	34.0	16 412	7.0	112 758	47.9	235 200	100.0	2 956	224 598	7 646

- Hunan Green Development Project
Components by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Smallholder Integration in Value Chains													
1. Developing Inclusive & Sustainable Production Management Plans	-	-	288	100.0	-	-	-	-	288	0.1	29	210	49
2. Implementation of Sustainable & Climate Smart Management Practices	13 406	123	42 870	39.2	16 412	15.0	36 725	33.6	109 413	46.5	2 506	101 708	5 199
3. Key Infrastructure Investments for cultivating the selected high value chain crops	4 380	17.5	855	3.4	-	-	19 786	79.0	25 031	10.6	-	24 737	294
4. Enhancing Carbon Sequestration and Monitoring & Accounting	150	27.5	-	-	-	-	387	72.5	547	0.2	-	537	11
Subtotal	17 946	133	44 013	32.5	16 412	12.1	56 909	42.1	135 279	57.5	2 536	127 192	5 552
B. Private Enterprise Led Business Development													
1. Inclusive Business Plan Development	0	-	1 808	100.0	-	-	-	-	1 808	0.8	181	1 320	307
2. Establishment of Productive Infrastructure	4 792	57	31 779	37.5	-	-	48 235	58.9	84 806	36.1	-	83 467	1 339
3. Product Development & Marketing	301	4.9	-	-	-	-	5 890	95.1	6 192	2.6	-	6 171	21
Subtotal	5 094	5.5	33 587	36.2	-	-	54 125	58.3	92 806	39.5	181	90 958	1 668
C. Management and capacity building													
1. Project management and capacity building	4 715	66.3	2 400	33.7	-	-	-	-	7 115	3.0	240	6 137	738
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

Summary Cost table 2 Project costs by expenditure category and financier

People's Republic of China
- Hunan Green Development Project
Disbursement Accounts by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%		
Goods, Services & Inputs (IFAD)	0	-	29 558	100.0	-	-	-	-	29 558	12.6	2 956	5 025
Government Financing /a	26 030	100.0	-	-	-	-	-	-	26 030	11.1	-	1 607
Equipment and material (IFAD)	0	-	28 800	100.0	-	-	-	-	28 800	12.2	-	1 014
Works(IFAD)	-	-	14 792	100.0	-	-	-	-	14 792	6.3	-	-
Operating costs (IFAD)	-	-	6 849	100.0	-	-	-	-	6 849	2.9	-	-
Beneficiary	-	-	-	-	16 412	100.0	-	-	16 412	7.0	-	-
Private sector	-	-	-	-	-	-	112 758	100.0	112 758	47.9	-	-
Total PROJECT COSTS	26 030	11.1	80 000	34.0	16 412	7.0	112 758	47.9	235 200	100.0	2 956	7 646

/a Subject to government fiduciary management . Cost breakdown by disbursement account is not needed.

People's Republic of China
- Hunan Green Development Project
Expenditure Accounts by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs													
A. Operations and Maintenance	193	18.7	-	-	-	-	836	81.3	1 028	0.4	-	1 028	-
B. Goods, Services & Inputs (IFAD)	0	-	29 558	100.0	-	-	-	-	29 558	12.6	2 956	21 577	5 025
C. C counterpart funding (Government)	25 838	100.0	-	-	-	-	-	-	25 838	11.0	-	24 244	1 594
D. Works (IFAD)	-	-	18 388	100.0	-	-	-	-	18 388	7.8	-	18 388	-
E. Equipment and material (IFAD)	0	-	32 053	100.0	-	-	-	-	32 053	13.6	-	30 714	1 339
F. Beneficiary	-	-	-	-	16 412	100.0	-	-	16 412	7.0	-	16 412	-
G. Private sector	-	-	-	-	-	-	105 073	100.0	105 073	44.7	-	105 073	-
Total Investment Costs	26 031	11.4	80 000	35.0	16 412	7.2	105 909	46.4	228 351	97.1	2 956	217 437	7 958
II. Recurrent Costs													
A. Operating costs /a	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total Recurrent Costs	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

Summary Cost table 3: Programme/project costs by component and year

People's Republic of China
- Hunan Green Development Project
Project Components by Year -- Totals Including Contingencies
(US\$ '000)

	Totals Including Contingencies						Total
	2024	2025	2026	2027	2028	2029	
A. Smallholder Integration in Value Chains							
1. Developing Inclusive & Sustainable Production Management Plans	288	-	-	-	-	-	288
2. Implementation of Sustainable & Climate Smart Management Practices	10 941	27 353	38 295	21 883	10 941	-	109 413
3. Key Infrastructure Investments for cultivating the selected high value chain crops	2 503	6 258	8 761	5 006	2 503	-	25 030
4. Enhancing Carbon Sequestration and Monitoring & Accounting	55	55	96	96	178	68	547
Subtotal	13 787	33 666	47 151	26 985	13 622	68	135 278
B. Private Enterprise Led Business Development							
1. Inclusive Business Plan Development	1 808	-	-	-	-	-	1 808
2. Establishment of Productive Infrastructure	19 320	17 074	22 837	15 704	8 503	1 370	84 806
3. Product Development & Marketing	342	370	1 370	1 370	1 370	1 370	6 192
Subtotal	21 470	17 444	24 206	17 074	9 872	2 740	92 806
C. Management and capacity building							
1. Project management and capacity building	1 827	948	948	948	948	1 496	7 115
Subtotal	1 827	948	948	948	948	1 496	7 115
Total PROJECT COSTS	37 085	52 057	72 305	45 006	24 442	4 304	235 200

People's Republic of China
- Hunan Green Development Project
Project Components by Year -- Totals Including Contingencies
(US\$ '000)

	Totals Including Contingencies						Total
	2024	2025	2026	2027	2028	2029	
A. Smallholder Integration in Value Chains							
1. Developing Inclusive & Sustainable Production Management Plans	288	-	-	-	-	-	288
2. Implementation of Sustainable & Climate Smart Management Practices	10 941	27 353	38 295	21 883	10 941	-	109 413
3. Key Infrastructure Investments for cultivating the selected high value chain crops	2 503	6 271	8 764	4 996	2 497	-	25 031
4. Enhancing Carbon Sequestration and Monitoring & Accounting	55	55	96	96	178	68	547
Subtotal	13 787	33 679	47 154	26 975	13 616	68	135 279
B. Private Enterprise Led Business Development							
1. Inclusive Business Plan Development	1 808	-	-	-	-	-	1 808
2. Establishment of Productive Infrastructure	19 320	17 074	22 837	15 704	7 133	2 740	84 806
3. Product Development & Marketing	342	370	1 370	1 370	1 370	1 370	6 192
Subtotal	21 470	17 444	24 206	17 074	8 503	4 110	92 806
C. Management and capacity building							
1. Project management and capacity building	1 827	948	948	948	948	1 496	7 115
Subtotal	1 827	948	948	948	948	1 496	7 115
Total PROJECT COSTS	37 085	52 071	72 309	44 997	23 066	5 674	235 200

Chapter 7: Financial Management Guideline

Due to the size of the text under this chapter, it will be made as an annex to the PIM

Hunan Green Development Project (HGDP)

Project Procurement Strategy

December 2023

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Hunan Green Development Project (HGDP) Project Procurement Strategy

1. Project Overview

Country:	China
Full Project Name and Number:	Hunan Green Development Project (HGDP)
IFAD Loan/Grant amount(\$):	The total investment of the project is US \$235 million, and IFAD loans are US \$80 million
Loan/Grant Number:	/
Summary of Project Development Objectives:	The development objective of the project is to increase smallholder's capacity for increased production and improved quality, climate resilience and access to markets through the development of three selected value chains namely bamboo, camellia oleifera and medicinal plants in seven selected counties in the Hunan Province. The project will support enterprises involved in the processing of the three value chains for employment generation and rural revitalization. The project will help in increasing incomes, rural employment and reducing vulnerability to economic and climate shocks. The project will also capitalise on the opportunity to contribute to China's ambitious goal of achieving carbon neutrality by 2060 by supporting emission reductions and carbon sequestration through investments in agro-forestry and agri-food systems. The project expects to target 70,000 households directly and increase their incomes through its investments. The project will have three components; Component 1: Smallholder Integration in Value Chains; Component 2: Private Enterprise Led Business Development and Component 3: Project Management. The main outcomes expected in the 3 value chains from the project include (i) Increased production and quality of produce; (ii) Climate adaptation & Enhanced CO2 sequestration and (iii) Increased market share & value addition.

1.1 Procurement Significance:

Most of the procurement activities under this program are expected to be simple low - to medium-value contracts, including multiple industries such as oil tea, bamboo, understory economy, forest product industry, flowers, production infrastructure (access, reservoir and irrigation facilities), technology and resource allocation of the park, consulting services, and procurement services. Provide technical assistance on wholesale market for project implementation.

Procurement of goods

Under this category it is envisioned to procure regular office logistics such as supply of office vehicles, motorbikes, scooters, computers, tablets, furniture etc. including other items required at the initial stage of project start-up i.e. during the first 18 months. In addition to office logistics, artificial afforestation needs to purchase equipment: such as planting pit machine, cart digging machine, sprinkler, truck crane, excavator, etc., through the input of equipment, expand the forest area. However, the exact number of all goods contracts will be ascertained at a later stage as the implementation proceeds ahead, as it is difficult to foresee at the present stage. Nevertheless, it is clear that the contract packages will be from medium to small in size.

Procurement of works

Under this category, it includes natural forest resource conservation projects, which address the rehabilitation and restoration of natural forests; Return farmland to forest project to solve soil and water loss in key areas; Wildlife protection and nature reserve construction projects, to solve species protection, nature protection, wetland protection, etc.; The construction project of fast-growing and high-yield timber forest base in key areas can solve the problem of timber supply in our country. However, the exact number of all work contracts will be ascertained at a later stage as the implementation proceeds ahead since this is depended on the demand of PMOs

Procurement of consulting services

Under this category, a sub-project is envisaged to provide technical assistance to the sub-project implementation units through the recruitment of experts and teams in the various production links of forestry ecology, such as tree planting, afforestation, forest care and management, ecological compensation, forestry machinery and tools. Relevant training for project managers and farmers will be involved.

2 Overview of Country, Borrower and Marketplace

2.1 Operational Context

- **Governance Aspects:** Tendering and bidding activities in China are governed by the Tendering and Bidding Law of the People's Republic of China, the Government Procurement Law of the People's Republic of China and other regulations. Legal, regulatory and policy framework in China are clear and mainstreamed with international procurement practices. Procurement of Goods, Works and Consulting Services financed by the IFAD will be involved in Procurement Plan (PP) prior to their implementation that should be in accordance with the IFAD Procurement Guidelines, IFAD Procurement Handbook and relevant procurement policy, as well as national procurement Laws/Regulations. China National Procurement Laws and corresponding implementation manuals will be applied for the procurement financed by government counterpart. The procurement implemented by state-owned enterprises or other public sector involving IFAD's funds have to comply with IFAD Procurement Guidelines, IFAD Procurement Handbook and its subsequent. While the procurement processes are implemented on the government public trading platform, the PMOs should coordinate with the platform to ensure that operable and flexible processes and procedures are applied.
- **Economic Aspects:** China has achieved rapid economic growth and poverty reduction over the last 20 years based on political stability, investment in infrastructure and openness to trade underpinning economic growth. But after a long period of sustained economic growth and poverty reduction, China has suffered the significant economic impact of the COVID-19 pandemic. Compared with previous years, the GDP growth rate in 2020 will be significantly lower, the unemployment rate will reach 200 million, and more than 460,000 enterprises will close down in 2020.
- **Sustainability Aspects:** On June 25, 2003, after the Central Committee of the Communist Party of China and The State Council promulgated the Decision on Accelerating the Development of Forestry, the reform of the collective forest right system entered a new stage of property right system reform focusing on the establishment of household contract management. With the smooth progress of the reform of the collective forest rights system across the country in 2007, as of the beginning of this year, 18 provincial party committees and governments have issued documents on forest reform, and 27 provinces have set up collective forest rights system reform leading groups and their offices. About 710 million mu of contracted forest land has been completed nationwide, accounting for 28.4 percent

of collective forestry land. The four provinces of Fujian, Jiangxi, Liaoning and Zhejiang have basically completed the main part of the reform and started to focus on deepening the supporting reform. Hunan is one of the key forestry provinces in the south of China, and forestry is crucial to the economic and social development of Hunan. In nearly 200 million mu of forestry land, the woodland area of collective ownership accounts for 94%. The development of collective forestry is the basis for the sound and rapid development of Hunan forestry.

The sustainability strategy of the project is based on the use of a private sector led model in which enterprises as the main driver of growth and expansion on the basis of viable business plans. The three value chains selected have significant potential for growth and development. The project is unlocking that potential by enabling the enterprises access to facilities which they can rent in the enterprise parks and for using their own funds for investment in equipment, packaging and working capital. In addition, some CDICs also have the risk appetite to directly lend to the private sector or follow a private sector led by making equity investments in the sector for enhancing their production base, product diversification, market expansion and employment generation. The expansion of their production base and expansion and diversification will lead to profitable and sustainable growth for them. The small-holder farmers who own the production base are being integrated into the business model. The equitable distribution of the profits from the enterprises will ensure that the agreements that are negotiated are to the mutual benefit of both parties and will be continued. The protection of the assets of the smallholders through improved crop management techniques and protection against droughts and adaptation to climate risks will lead to a more sustainable production system.

- **Technological Aspects:** Internet access is strong. Telecommunication facility is available and growing. Electronic procurement is not in place, but efforts are being initiated to adopt it soon. In the development of forestry economy, the lack of funds leads to slow development, and the development and management of forestry need to spend huge capital; The economic system of forestry is not perfect, and the support for forestry industry is not enough, which has a great impact on the development of forestry industry. Forestry economic development technology and management measures lag behind, such as backward equipment, management lag. It leads to the serious shortage of forestry resources and the decline of forestry quality. The project construction has an important demonstration and promotion role in the rural revitalization of our province, which is conducive to the implementation of the national rural revitalization and development strategy, consolidating the effect of poverty alleviation, and improving the management experience of foreign-funded projects; It is beneficial to improve farmers' ability to participate in project construction, broaden farmers' income increase channels, and stimulate rural vitality. It is conducive to promoting the integrated development of all aspects of agricultural industries in each project county, improving rural living environment, promoting ecological environmental protection, and promoting high-quality and sustainable development of the project area.

2.2. IA Capability Assessment

- **Experience:** Since 1981, China has borrowed from the World Bank, ADB and other international financial organizations as well as foreign governments for a total of 3,865 projects, with a promised loan amount of about US \$180.3 billion, covering the country's key areas of energy, transportation, forestry, agriculture and rural development, education, health and industry. It has played a positive role in promoting China's economic and social development. Currently, the Provincial Forestry Department (PFD) in Hunan is responsible for implementation and coordination, The PFD has previous experience of working with several international partners including the World Bank, EIB and KFW. These

partnerships have gone well and indicate the strong implementation capacity of the Department. An Inter-departmental coordinating mechanism will be established at the provincial level to address the need for any strategic and operationally critical coordination and guidance, both at the provincial level or vertically to the counties. At the county level, project management and coordinating responsibilities will be assigned to County Project Management Offices (CPMO) to be established in the County Forestry Bureaux (CFB) in each of the seven counties, the county Women Federation (WF) will be assigned as a deputy director member of the CPMO. CDICs (or similar public entity) who receive the IFAD loan will work in partnership with the CFBs and the two will coordinate their efforts on the production and processing aspects of the selected value chain in each county. The CFBs will seek the assistance of the relevant technical bureaus such as the Women's Federation, Agricultural and Rural Affairs, Water Resources, Youth League and others as appropriate in the implementation of project especially in activities where counterpart financing is involved. Responsibilities of the CPMOs will include beneficiary targeting and implementation planning, overseeing business planning, coordinating with CDICs for value chain investment from either government or private sector at the farm level. In addition, the CPMOs will undertake generic project management tasks such as financial management, procurement, knowledge management and project monitoring and evaluation etc.

- **Need for hands-on support:** The Provincial Forestry Department (PFD) in Hunan require services of expert consultants or firm to assist them in planning (Feasibility studies, Detailed Engineering Designs) and implementing (Project Management Consultant) for the proposed projects. There is no specialized procurement training program for the staff involved for undertaking procurement. The Provincial Forestry Department (PFD) in Hunan procurement staffs have experience with ADB/EIB/WB procurement procedures but limited knowledge and experience on IFAD procurement frameworks. Trainings and on-the-job coaching during project implementation on IFAD procurement framework (Project procurement guidelines, ICP contract monitoring tool, OPEN system for procurement management, etc.) is needed. At the county level, project management and coordinating responsibilities will be assigned to County Project Management Offices (CPMO) to be established in the County Forestry Bureaux (CFB) in each of the seven counties, the county Women Federation (WF) will be assigned as a deputy director member of the CPMO. CDICs (or similar public entity) who receive the IFAD loan will work in partnership with the CFBs and the two will coordinate their efforts on the production and processing aspects of the selected value chain in each county. The CFBs will seek the assistance of the relevant technical bureaus such as the Women's Federation, Agricultural and Rural Affairs, Youth League and others as appropriate in the implementation of project especially in activities where counterpart financing is involved. Responsibilities of the CPMOs will include beneficiary targeting and implementation planning, overseeing business planning, coordinating with CDICs for value chain investment from either government or private sector at the farm level. In addition, the CPMOs will undertake generic project management tasks such as financial management, procurement, knowledge management and project monitoring and evaluation etc.
- **Contract management capability and capacity:** The Provincial Forestry Department (PFD) in Hunan through dedicated project staff monitors the performance of the contractors and the consultants or firms hired for project development and implementation. The agencies diligently track its contractual payment obligations. Payments to contractors/suppliers are often made without delays. However, there is still need of improvement in follow up mechanism and timely processing withdrawal applications and release of payment.
- **Complaints management and dispute resolution system:** The Provincial Forestry Department (PFD) in Hunan is implementing a complaint management system, that

address grievances related to procurements and contract administration. The contracts signed by the agency entail a two-tier dispute resolution mechanism clause to settle the disputes among the contracting parties.

2.2.3. Procurement Processes and Delegation of Authority

The Provincial Forestry Department (PFD) or PPMO (Provincial Project Management Office) in Hunan and the County Project Management Offices (CPMO)'s to be established in the County Forestry Bureaux (CFB) in 7 counties will carry out the procurement under Component 1.1; 1.4 (mostly coordination, training and technical assistance) and Component 3 Project Management while 7 County Development Investment Company (CDIC)'s would be contracted to implement Component 1.2; 1.3 and Component 2. Each county has identified a public sector agency which will receive the IFAD loan funds directly through the BOF and will work in partnership with the CFBs to coordinate their efforts in the production and processing of the selected value chain in each county. This will start with an initial assessment of capacity of each CDIC to implement including against the project's established investment criteria. They will use the loan to support, through subsidies and equity investments, stakeholders ranging from smallholders to cooperatives to SMEs (either private or State owned) both for the production and the processing side of the value chain.

All major project procurement would be undertaken by these CDIC's (Enterprises) based on commercial terms since these entities operate as for-profit businesses. These enterprises are state enterprises owned by Hunan Country Governments.

Nevertheless, this arrangement can be adjusted during the project implementation depending on the project activities. The responsibilities of provincial agencies involved in procurement are as follows:

- a. Provincial Forestry Bureau (PFD or Provincial Project Management Office (PPMOs))
 - Perform the duties of the investment decision-making body as regulated by law.
 - Approve the AWPB and the procurement plan of the project subject
 - Settle petitions in procurement, handle violations of the Procurement Law, and other provisions regulated by law.
 - Cancel, suspend the bidding or not recognize the evaluation results when detecting violations of the Procurement Law or other provisions regulated by law.
 - Conduct the inspection, supervision, and monitoring of the bidding process and contract implementation.
 - Review investment/business proposal and approve investment/business proposal and highlighting risk and advise on mitigation measures to be adopted. Release funds to CDIC's for the implementation of of Investment/Business Proposal in reference to the subsidiary financing agreement signed between PPMO/CPMO and CDIC's
 - Consolidate and report on implementation progress and monitor CDIC implementation of CDIC activities.
- b. County County Project Management Offices (CPMO)'s or County Forestry Bureaux (CFB)
 - Guide detailed procurement plans preparation by CDICs and approve the cost estimates of activities after the AWPB and annual procurement plan are approved
 - Discuss and ensure a detail procurement plan for each package or group of packages and submit them by CDIC's with each Investment/Business Proposal
 - Establish a Procurement Evaluation Committee (PEC) and appraisal committee to review procurement processes and packages on each CDIC under their respective counties.
 - Monitor and supervise the process of contract performance, acceptance, payment and final project settlement documents according to regulations of each CDIC's

- Coordinate with CDIC's in handover of outputs to the beneficiary organization or individual, and monitor the process of use, operation, warranty, defects liability, and maintenance.
- c. County Development Investment Company (CDIC)'s
 - Prepare and submit detail business/investment proposal based on format approved in the PIM.
 - The detailed proposal shall include a procurement strategy with a procurement plan including a risk analysis of the referred procurement.
 - The PPS should also include a detailed mitigation plan for any SECAP risk associated with procurement.
 - Develop monitoring (compliance monitoring) and effective internal controls to monitor and report on compliances. Prepare and submit periodic reports in reference to Business/Investment Proposal Guidelines in the PIM.
 - Establish a Procurement Evaluation Committee (PEC) and appraisal committee to review procurement processes and packages
 - Monitor and supervise the process of contract performance, acceptance, payment and final project settlement documents according to regulations of each
 - Coordinate with PPMO and CPMO in handover of outputs to the beneficiary organization or individual, and monitor the process of use, operation, warranty, defects liability, and maintenance.

2.3 Market Analysis

- **Market sector dynamics (Nature and extent of competition, levels of experience, capability and innovation, external influences and factors, Supplier Preferencing):** There is a reasonably well functioning private sector, but competition for large contracts (requiring ICB) is concentrated in a relatively small number of firms. There is a sufficient number of local construction contractors. They have experience working with donor-financed projects (WB, ADB, ...) for ICB/NCB procurement of works. Local contractors have capacities to bid. For work contracts using open competitive bidding, there are 10-15 contractors on average submitted their bids. For goods contracts, there are 5-9 contractors on average submitted their bids.
- **Financial (Sources of cost and value, cost stability, pricing strategies and mechanisms, cost and financial benchmarks):** Over the last decade, there were a number of donor-financed investment projects in Forestry department of Hunan Province with a number of projects having project cost of more than US\$100 million. Some of main donors are ADB, WB, ADF, JICA, EIB. Values of awarded contracts are below or above the original cost estimates of the packages. It is noted that there were significant cost escalations of construction materials, fuels, labors over the 2021-2022 period due to Covid-19 pandemic. As results, for some projects, work contract prices were increased at a ranged 10% - 25% compared with the initial estimated costs at the project design stage.
- **Procurement trends (Procurements of other entities procuring similar contracts, typical contract terms, common issues that inhibit or contribute to achieving value for money, typical responses and lessons learned):** For donor-financed projects in forestry department, there are both ICB and NCB procurement for contracts. For the procurement of ADB financed contracts under OCB with national advertising procedures, the standard documents under the Standard Operational Procedures (SOP) were reviewed and approved by ADB, and are used to the extent possible. For the procurement of IFAD financed contracts, the standard bidding document under the Standard Operational Procedures (SOP) were adopted and used with additional provisions (for compliance with anticorruption policies, safeguard requirements).

There is no major procurement envisaged under Component 1.1 and 1.4 and Component 3 which would be managed by CPMO's in seven counties.

There may be several large procurements which would be undertaken by CDIC's based on the

Business/Investments Proposal which would be partially funded by IFAD along with other investors. These packages would only be identified when each Business/Investment Proposal is developed in consultation with various stakeholders including equity investor. Since CDIC are private sector for profit organizations, the procurement packages would likely apply commercial processes and procedures.

3 Procurement Risk Analysis for above mentioned contract/group of similar contracts

Risk Description at the respective stage of the procurement process per each contract	A	B	Overall Risk Score A x B	Assessed Inherent Risk	Proposed Mitigation Measure/s throughout the Procurement Process	Net Risk (assuming full functioning of the mitigation measure/s)
	Likelihood of Occurrence	Impact upon Occurrence				
<i>Project Preparation Stage Component 1.1 Developing Management Plans; Component 1.4 Carbon Sink Monitoring and Component 3 Project Management. Low value procurement. The value ranges between CNY 50,000 to CNY 1,500,000 per procurement activity in each country. Component 1.4 is Carbon Sink Monitoring most likely to be implemented by State Institution with technical capacity.</i>						
<i>Inadequate and poor technical inputs such as design, drawing, bill of quantity, specifications often lead to complication during the contract implementation</i>	L	L	L	<i>This results in time and cost overruns, substandard output and dispute between the parties.</i>	<i>Ensure design, drawing, bill of quantity, specifications are prepared properly.</i>	<i>Less possibility of time and cost overrun substandard output and dispute between the parties.</i>
<i>Project Preparation Stage Component 1.2 Implementation of Sustainable & Climate Smart Management Practices; 1.3 Roads and Pathways for Production and Component 2 Enterprise Led Inclusive Business Development. Business Plans submitted by CDIC's can range between 10,000,000 to CNY 100,000,000 or more depending on the size of equity and financing from investors. IFAD share of Financing would a fraction of the total financing.</i>						
<i>Inadequate and poor technical inputs such as design, drawing, bill of quantity, specifications often lead to complication during the contract implementation Non availability of capital funding Business/Investment</i>	M	M	M	<i>This results in time and cost overrun, substandard output and dispute between the parties. The lack of capital financing could potentially delay scale down investment</i>	<i>Ensure design, drawing, bill of quantity, specifications are prepared properly. Adequate supervision and oversight in the business plan approval process</i>	<i>Less possibility of time and cost overrun, substandard output and dispute between the parties.</i>

<p><i>Proposals without adequate details and supporting documentation</i></p> <p><i>Undertake institution and capacity assessment of each CDIC to ascertain their ability to monitor and report on SECAP compliance with procurement</i></p>	M	M	M	<p><i>project.</i></p> <p><i>Lack of detail business proposals with investment</i></p> <p><i>Repupation al risk.</i></p> <p><i>Inadequate reporting and potential non compliance</i></p>	<p>including IFAD reviews. Standard Application process to be developed and integrated in PIM</p> <p><i>Standard capacity assessment to be developed. PPMO and CPMO develop undertake assessment based on the standard criterias</i></p>	<p>With capacity development and training the CDIC's should be adequately equipped to report on SECAP Safeguard compliance</p>
<p><i>Project implementation Stage Component 1.1 Developing Management Plans; Component 1.4 Carbon Sink Monitoring and Component 3 Project Management. Low value procurement. The value ranges between CNY 50,000 to CNY 1,500,000 per procurement activity in each country. Component 1.4 is Carbon Sink Monitoring most likely to be implemented by State Institution with technical capacity.</i></p>						
<p>Risk of less competition due to the preparation of bidding documents and specifications.</p>	L	L	L	<p>May lead to re-tendering</p>	<p>Prepare bidding document and specification only after proper market surveys. Conduct market hearings.</p>	<p>Less chances of cancellation of whole tendering process.</p>
<p>Risk of abnormally low bid prices.</p>	L	L	L	<p>In case of abnormally low bid, it increases the risk of contract failure and low-quality outputs.</p>	<p>Ensure proper criteria and good technical specifications, conduct thoroughly bid evaluation, and promote contract</p>	<p>Possibility of bid submission with reasonable bid price.</p>

					managem ent for those contracts.	
<i>Risk of slow in work progress/delay in implementation.</i>	L	L	L	<i>Results in time and cost overrun.</i>	<i>Prepare realistic contract management plan. Promote contract administration and management.</i>	Less possibility of slow in work progress/delay in implementation
<i>Project Implemetaiton Stage Component 1.2 Implementation of Sustainable & Climate Smart Management Practices; 1.3 Roads and Pathways for Production and Component 2 Enterprise Led Inclusive Business Development. Business Plans submitted by CDIC's can range between 10,000,000 to CNY 100,000,000 or more depending on the size of equity and financing from investors. IFAD share of Financing would a fraction of the total financing.</i>						
Pullout of Investor or delays in release of funds from investors or equity shareholders	M	M	M	Delays in Implemetatation. Changes to design and cost escalation	Secure funding upfront and ensure project start is contingent on funding, flexible design which allow for customization or downsizing in the event of fund shortage	Limited impact result would still be achieved
Design changes and poor technical documentation	M	M	M	<i>Results in time and cost overrun.</i>	<i>Prepare realistic contract management plan. Promote contract administration and management.</i>	Less possibility of slow in work progress/delay in implementation
SECAP Risk not monitors or safeguards non adhered to	S	S	S	Impact reputationa l risk and potential	Ensure CDIC's capacity assessmen	Low risk exposure with timely reporting

				financial risk	<p>t are undertaken prior to contracting and incorporate training for CDIC an CPMO in monitoring and reposting of SECAP safeguards . Reference SECAP risks associated with Procurement Matrix Undertake periodic compliance audits</p>	and assesment .
Wrong products or items purchased	M	M	M	Loss of resources or wasteful procurement	<p>Adequate stakeholder s consultants and market analysis on investment requirement t to minimise wrong/wasteful from being purchased</p>	Low risk if adequate consultantion is undertaken .

4 Procurement Objective

- 1) Effective procurement and contract management to ensure on-time delivery of goods, works, non-consulting services of consultants, within estimated costs, and planned timeframe.
- 2) On time delivery of contractually obligated deliverables as per the approved plans.
- 3) Provide the basic support capacity of forest resources, vigorously develop and use innovative technologies for wood saving and substitute, and adhere to the policy of "afforestation and wood saving simultaneously".
- 4) Change the existing forestry industry layout and promote the progress of forest-related industries
- 5) The use of trees to purify the air, regulate the climate, conserve water, maintain water and other functions to achieve the purpose of improving the ecological environment.
- 6) Develop eco-tourism in forest parks to improve ecological and social benefits.

5. Recommended Procurement Approach

5.1 Recommended procurement approach for Works and Goods packages.

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Conformance	Need to mention the requirement in the PIM for the incorporation to ensure this is addressed by the borrower/recipient when procurement is undertaken.
Sustainability Requirements	Yes	Need to mention the requirement in the PIM for the incorporation in each procurement cycle (bidding document, specification, evaluation criteria) to ensure this is addressed by the borrower/recipient when procurement is undertaken.
Contract Type	A. Traditional B. Design and Build C. Design, Build, Operate, Maintain	
Pricing and Costing Mechanism	A. Unit Rate Contract B. Lump Sum Remuneration Contract C. Percentage (payment) Contract	Competitive
Price Adjustments	A. None, fixed price.	Contract will be of fixed priced
Supplier Relationship	A. Adversarial	Strong competition in the market with a number of qualified national/international contractors.
Form of Contract (Terms and Conditions)	D. State any special conditions of contract	Additional provisions to be included in the bidding/contract documents in compliance with IFAD's policy on anti-corruption, SH SEA, ES safeguards.
Selection Method	B. Request for Bids (RFB) C. Requests for Quotations (RFQ) D. Direct Selection	Open Tendering is most common competitive method that prescribed in China Tendering and Bidding Law, of which the thresholds are not less than CNY4 million for Works, CNY2 million for Goods.
Selection Arrangement	C. Commercial practices	Competitive method
Market Approach	A. Type of Competition 1. Open 2. Limited 3. International 4. National	International competitive bidding applied for Works packages with estimated cost US\$ 10,000,000 if IFAD share of financing is above this

	5. No Competition – Direct Selection B. Number of Envelopes/Stages 1. Single Envelope 2. Single Stage C. Negotiations (No)	threshold. for Goods packages with estimated cost US\$ 5,000,000 or more will apply ICB. No ICB envisaged
Pre / Post Qualification	B. Post-Qualification	
Evaluation Method	Evaluated lowest quotation.	
Evaluation of Costs	A. Adjusted Bid Price (corrected for bidder's minor deviations) B. Life-Cycle Costs	Life-cycle costs criteria will be applied for large-scale mechanical equipment.
Domestic Preference	No	Domestic preference not applied.
Rated Criteria	List the type of criteria to be used (mandatory/desired)	Rated criteria not applied.

5.2 Recommended procurement approach for Consulting Service packages.

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	Conformance	Need to mention the requirement in the PIM for the incorporation to ensure this is addressed by the borrower/recipient when procurement is undertaken.
Sustainability Requirements	Yes	Need to mention the requirement in the PIM for the incorporation in each procurement cycle (bidding document, specification, evaluation criteria) to ensure this is addressed by the borrower/recipient when procurement is undertaken.
Contract Type	A. Traditional B. Design and Build	
Pricing and Costing Mechanism	B. Lump Sum Remuneration Contract C. Time-Based Remuneration Contract D. Percentage (payment) Contract	Competitive
Price Adjustments	A. None, fixed price.	Contract will be of fixed priced
Supplier Relationship	A. Adversarial	Strong competition in the market with a number of qualified national/international contractors.
Form of Contract (Terms and Conditions)	D. State any special conditions of contract	Additional provisions to be included in the bidding/contract documents in compliance with IFAD's policy on anti-corruption, SH SEA, ES safeguards.
Selection Method	A. Requests for Proposals (RFP) D. Direct Selection	Open Tendering is most common competitive method

		that prescribed in China Tendering and Bidding Law, of which the thresholds are not less than CNY1 million for Services.
Selection Arrangement	C. Commercial practices D. United Nations (UN) Agencies	Competitive method
Market Approach	A. Type of Competition 1. Open 2. Limited 3. International 4. National 5. No Competition – Direct Selection B. Number of Envelopes/Stages 1. Single Envelope 2. Two Envelopes 3. Single Stage 4. Multi Stage C. Negotiations (Yes)	International competitive bidding applied for Consulting Service packages with estimated cost US\$ 1,000,000 or more.
Pre / Post Qualification	B. Post-Qualification	
Evaluation Method	A. Quality Cost Based Selection (QCBS) B. Fixed Budget Based Selection (FBS) C. Least Cost Based Selection (LCS) D. Quality Based Selection (QBS) E. Consultant's Qualifications Based Selection (CQS) F. Single Source Selection	
Evaluation of Costs	A. Adjusted Bid Price (corrected for bidder's minor deviations)	
Domestic Preference	No	Domestic preference not applied.
Rated Criteria	List the type of criteria to be used (mandatory/desired)	Rated criteria not applied.

A. The Principle of Procurement

- The procurement of Goods/Works/Consulting Services financed by IFAD will be carried out in accordance with the project Financing Agreement (FA) and with IFAD's procurement framework which consists of Procurement Guidelines, Procurement Handbook, Project Procurement Arrangement (PPA), Procurement Tools and National Procurement Framework of People's Republic of China. The procurement activities financed by government shall align with the national procurement legislations and regulations including China Bidding Law, China Government Procurement Law and other relevant manuals and guidance. The following specific principles shall be complied with:
 - (1) All procurement activities financed by IFAD must be contained within the Procurement Plan (PP), which shall identify the procedures that must be implemented by the borrower/recipient in order to ensure consistency with the IFAD Project Procurement Guidelines;
 - (2) The principle of Ethics, Accountability, Competition, Fairness, Transparency, 3E (Efficiency, Effectiveness and Economy) and Value For Money shall be applied

throughout the entire project life to facilitate procurement activities and ensure the maximum benefit of project construction;

(3) Detailed provisions on procurement (e.g. procurement methods, prior review arrangements, the thresholds, and award-related protests and appeals) will be prescribed in the PPA. (Please see Annex 9)

B. The Institutional Framework of Procurement

- The PPMO located at the Hunan Provincial Forestry Department is in charge of the provincial procurement activities with the function of management, supervision and coordination. A procurement unit or a procurement staff should be designated to implement procurement activities at provincial level. The specific staff or consultant designated/recruited by PPMO shall be responsible for managing and operating the OPEN, CMT and other relevant IFAD's Procurement Tools. The detailed management mechanism of procurement should be established by PPMO.
- At the county level, County Project Management Offices (CPMO) will be established in the seven counties by the County Forestry Bureau (CFB). CDICs who receive the IFAD loan will work in partnership with the CFBs and the two will coordinate their efforts on the implementing of procurement. The corresponding procurement unit of procurement staff should be designated for the procurement implementation, management and coordination at county level. The procurement activities of Works/Goods/Consulting Services undertaken by CDIC should be reflected in PP and be consistent with IFAD's procurement policy, as well as subject to review by IFAD.
- A provincial procurement agency should be recruited to provide technical assistance through professional services for project procurement for both provincial and county levels. This is to facilitate and support PPMO and CPMO procurement activities at project level. The provincial procurement agency should also provide procurement capacity building for PPMO and CPMO procurement and other staff in managing procurement and its associated risks for the entire project lifecycle.

C. The Procurement Plan (PP)

- Prior to preparing the PP, the Project Procurement Strategy (PPS) should be established by analyzing procurement needs, market and procurement risks in order to produce the procurement objectives. The first 18-months PP and General Procurement Notice (GPN) are prepared on the basis of the well-elaborated PPS identifying the risks faced by each contract with proper justification of the selection of the optimal procurement method for each package/contract that is conducive to achieve optimal Value For Money. IFAD's latest PP format shall be applied. (Please see Annex 8)
- The PPMO shall register in IFAD's OPEN system in order to ensure the Annual PP to be uploaded into the OPEN following its requirements, in which the PP should be managed and kept updating and upgrading as per the actual needs, IFAD's "No Objection" might be sought when necessary.
- In PP, the nature, quantity together with the procurement schedule of Goods/Works/Consulting Services should be consistent with the activities and implementation schedules in the AWPB. The procurement activities in PP will be systematically and logically grouped into packages based on the analysis incorporated in the PPS and according to the categories of the procurement (Goods/Works/Consulting Services). Packaging shall be done in a way that generally facilitates the use of the most competitive and efficient procurement method, which ensures the best value for money.
- The GPN shall be publicly advertised on national press or the free and open-access national websites prior to the first procurement activity initiation.

D. Procurement Methods and Thresholds

- As per the characteristics of the project and the type of the subject matter to be procured, the procurement activities of the project are classified into three categories: Works, Goods and Non-consulting Services, Consulting services. IFAD's procurement framework and regulations prescribe that procurement methods including International Competitive Bidding (ICB), National Competitive Bidding (NCB), and National Shopping are applied for Works, Goods and Non-consulting Services; The procurement of Consulting Services applies the procurement methods including Quality and Cost-Based Selection (QCBS), Least-Cost Selection (LCS), Consultant Qualification Selection (CQS), Individual Consultant (IC) and Sole-Source Selection (SSS). (See detailed thresholds of each method in PPA).
- Other Procurement Methods or Arrangements: Extensions of contracts funded by IFAD for Goods, Works or related Non-Consulting Services to cover items of similar nature not listed in the original contract may not exceed 10% of the contract value and require IFAD's No Objection (such extension shall be considered as Direct Contracting). However, extensions of existing contracts, issued in order to increase/decrease items already listed in the original contract as a result of evolutionary changes during contract execution and subject to the contractual clauses governing such change may exceed 10%. In this case, the extension is subject to IFAD's No Objection. (See detailed other procurement arrangements in PPA).

E. SECAP Related to Procurement

- Both procurement activities financed by IFAD and government need to comply with the IFAD's SECAP requirements. All procurement documentations should contain the SECAP risks and relevant mitigations related to procurement. See detailed SECAP related Environmental and Social Safeguards at the end of procurement section.

F. Procurement under Business/Investment Proposals CDIC's

- The project will provide technical and financial support as an incentive to selected either private enterprises or cooperatives to stimulate them to establish inclusive and fair relationship with the project target group. Practically, these private enterprises or cooperatives will be on-lent by the CDIC or its subsidiaries through a competitively-selected procedure as a means to efficiently allocate PUBLIC RESOURCES TO THEM TO PROMOTE THE INCLUSION OF THE PROJECT TARGET GROUP IN SUSTAINABLE AND PROFITABLE VALUE CHAINS THROUGH MUTUALLY BENEFICIAL CONTRACTUAL ARRANGEMENTS. THE SELECTION OF THE ENTITIES WILL BE ON A COMMERCIAL TERM SINCE THESE CDIC'S ARE FOR PROFIT COMPANIES. The BUSINESS PRoposal WILL BE AWARDED TO THE CDIC's based on a standard financing or subSIDIARY AGREEMENT BASED ON A SET OF CRITERIA WHICH, INCLUDE: (i) project target group outreach; (ii) definition of fair and sustainable contractual arrangements with the project target group; and (iii) viability and sustainability of the proposal, among other criteria to be elaborated and approved in the Project Implementation Manual. When the business proposals are reviewed by a Technical Advisory Group (TAG) and approved, there would be a standard agreement between the CDIC (or its subsidiary) and the private enterprise or cooperative that submitted proposal of on-lending. The CDIC then finances the private enterprises or cooperative (as third parties) who would undertake the procurement. Such procurements by third parties are not subject to IFAD prior review and they would not be reflected in the PP.

G. Standard Bidding Documents & Standard Contract

- The Borrower/Recipient shall adopt and use the Standard Bidding Documents (SBDs) issued by IFAD (for ICB and (if applicable) for consulting services) and the ones issued by National Authorities (the SBDs issued by Ministry of Finance in 1991 and newly revised in 2017) for other methods as long as the latter are supplemented/adapted to meet IFAD's SECAP standards, IFAD's policy on Preventing Fraud and Corruption, and grievance mechanisms and the IFAD's Project Procurement Guidelines and IFAD

Procurement Handbook. This includes adding the IFAD self-certification form at bidding and at contract stage. Similarly, Standard Contracts shall adopt and use the templates contained in corresponding SBDs, and also be supplemented/adapted to meet the aforementioned components and policies.

H. Review of Procurement Decisions by IFAD

- In accordance with Section G paragraph 66 of the 2019 IFAD Project Procurement Guidelines, IFAD will undertake to review the provisions for the procurement of Good, Works and Consulting Services to ensure that the procurement process is carried out in conformity with the IFAD Project Procurement Guidelines. See detailed prior review arrangement in PPA.
- The Borrowers/Recipients and vendors are required to: 1) fully cooperate with any review/investigation/audit conducted by IFAD or its representatives; 2) maintain all accounts, documents and records related procurement. In addition, the bidders and contractors are required to participate in due diligence checks and disclose required information.
- Requests for IFAD Prior Review and No Objection should be routed through OPEN system. The OPEN as an independent system enforces a step-by-step documentation of the workflow for the process for the entire procurement process (expression of interest, IFAD No-Objection, to contract signature) according to the type (e.g. NCB, QCBS) and object of procurement (Works, Goods, Consulting Services). For the non-procurement workflow (e.g. Project Implementation Manual – PIM), the requests for IFAD prior review and No Objection should be routed through No Objection Utility System (NOTUS), which is an integrated system in ICP with the function as tracking system for those non-procurement workflow. The Sub-loan and Subsidy Business Plan Proposals should be submitted through NOTUS as non-procurement work flow uploading the related supporting documentation.
- All Contracts must be managed through ICP-CMT and periodically updated, which aims to capture contract data related to a project directly from the project source. This data will feed dashboards, which facilitate transparency, efficiencies in project performance monitoring, and enhanced reporting in reference to project financed contracts. The data will also enable projects to generate the contract register as per the requirement of the Loan Disbursement Handbook (LDH). The project must engage staff to undertake data entry and ensure the system is updated including the BP contracts.

I. Maintenance of Records and files

- The project must establish a procurement file for each procurement process/activity. In addition to information documentation of the procurement process (cost estimate to contract signing), the file must include all information required to successfully administer the contract. Any issues of clarification or change of the contract must be fully documented in this file. In order to provide their input throughout the contract administration phase, the PMO will normally have a separate file with a copy of the contract as part of each procurement activity.
- The project should maintain all documents and records related to the bid and contract for at least five years after the completion of the bid or contract.

J. Procurement Staff Training and Capacity Building

- The project procurement staff should be aware of IFAD's procurement framework, policy, principles and basic processes, as well as the domestic procurement laws and regulations. The mechanism of procurement capacity building should be established as a project objective. The project needs to organize regular procurement training for procurement staff at all levels. Practically for CPMOs and CDICs' staff, BP participants and other stakeholders, the training focusing on operational processes and methodology will be organized. IFAD will organize training on IFAD's online

procurement management systems/tools (OPEN, ICP-CMT) for relevant personnel prior to the implementation of the project. The IFAD BuildProc Training will be provided where possible.

Environmental and Social Safeguards			
Biodiversity conservation	Risk Rating	Consequence	Guidance for Project
1.1 Could the project potentially involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	Moderate	Minor	ESMP for each subproject shall identify and incorporate mitigation measures. Subproject procurement to incorporate mitigation measure identified by ESMP and stakeholder consultation.
1.8 Could the project involve or lead to procurement through primary suppliers of natural resource materials?	Moderate	Minor Project may possibly require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	No major construction envisaged however depending on type of construction project in discussion with PPMU will incorporate adequate requirement as part of bid document. These provision does not need to be incorporated for types of construction work or activities where it is not feasible to obtain nor identify sources of materials in remote rural locations.
Resource Efficiency and Pollution Prevention	Risk Rating	Consequence	Guidance for Project
2.1 Could the project involve or lead to the release of pollutants to the environment due	Moderate	Minor Pollutants may possibly be released, either routinely or by	No major construction envisaged however depending on the type of construction and

<p>to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?</p>		<p>accident, but treatment systems are proven and verified. Receiving environment has absorptive capacity.</p>	<p>activity bid document and specification shall require contractor or implementer of planned activities ensure adequate provision to measure to minimise the release of pollutants to the environment and to manage waste.</p>
<p>2.3 Could the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?</p>	<p>Moderate</p>	<p>Minor Only a small component of the project is focused on forestry, and this aspect is well regulated</p>	<p>ESMP for each subproject shall identify and incorporate mitigation measures.</p>
<p>2.4 Could the project involve or lead to significant consumption of raw materials, energy, and/or water?</p>	<p>Moderate</p>	<p>Minor The project will require consumption of raw materials, energy, and/or water, but this will be a small component of the project, and impacts can be appropriately managed.</p>	<p>No major construction envisaged however depending on type of construction or activity, project in discussion with PPMU will incorporate adequate requirement as part of bid document to favour ethical and efficient use of raw materials.</p> <p>These provision does not need to be incorporated for types of construction work or activities where its does not identify significant use of raw materials, energy, and/or water materials in remote rural locations.</p> <p>Develop impact assessment tool in term of water usage to identify use of water resources based on</p>

			type of construction or activity.
2.5 Could the project involve or lead to significant extraction, diversion or containment of surface or ground water (e.g. construction of dams, reservoirs, river basin developments, groundwater extraction)?	Moderate	Minor The project only needs a minimal amount of water. This can be obtained from existing sources, without the need for extraction, diversion or containment of surface or ground water.	Include in PIM references to local government policies and guidelines on efficient use of water in project activities by and management of waste in value chain processes.
2.6 Could the project involve inputs of fertilizers and other modifying agents?	Moderate	Minor The project only requires minimal amounts of fertilizer	Project to include in the tender document a list of approved/certified chemicals and incorporate them in the tender. The list of approved/certified would be based on existing national regulation.
Cultural Heritage	Risk Rating	Consequence	Guidance for Project
3.6 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	Moderate	Moderate The project would be more profitable if it had a commercial component, but this is not necessary.	Involve community or community based organisation in the process and to use knowledge.
Indigenous Peoples	Risk Rating	Consequence	Guidance for Project
4.5 Could the project lead to impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	Moderate	Minor The project is located in an area that is considered to be of high cultural heritage value, but the project has no commercial value or interest.	Procurement packaging to work with community directly (community participation in procurement with indigenous knowledge, technology and

			material). Bidder require to have past knowledge or experience and potential include some form of compensation to community if it is contracted out.
Labour and Working Conditions	Risk Rating	Consequence	Guidance for Project
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence	Low	The project operates in a sector, area, or value chain where workers are occasionally exposed to significant OSH risks, and where regulation is known to be effective.	Project to include contract clauses for OSH measures to protect project's workers from injury, illness or impacts encountered in the workplace or while working to be included contract provision Bid evaluation criteria to favour contractors with a high-quality Health and Safety Management Plan (HSMP) may be introduced as applicable in consultation with PPMU for specific value chain actors based on assessed risk factors and exposure. Provisions to be incorporated in consultation with local government and PPMO

and harassment.)			
Community Health, Safety and Security	Risk Rating	Consequence	Guidance for Project
6.3 Is there a possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	Low	<p>Moderate</p> <p>The project has significant reliance on buildings or infrastructure. Risk of failure is unlikely to lead to loss of life or significant environmental damage. The structural integrity of the required infrastructure has been independently verified.</p>	<p>Ensure relevant safety measures and emergency preparedness against natural or human hazards is included in the procurement documents.</p> <p>Bid and contract requires contractor to erect adequate warning signage's and also take up 3rd party insurance and construction insurance. Independent assessment of structural integrity would be undertaken by government during construction.</p> <p>Contractor's HSMP is to include safe disposal of construction waste and worker camp waste, mitigation of risks to and impacts on the community resulting from the contractor's work, safety of deliveries and transportation, and disposal of hazardous materials and waste;</p> <p>Contractor's HSMP is to incorporate emergency preparedness against natural or human hazards.</p>
6.8 Could the project lead to increases in	Moderate	<p>Minor</p> <p>The project will result</p>	Applicable traffic rules and road safety

traffic or alteration in traffic flow?		in minor increases to traffic volume. Only minor increase in risk of injury or death.	measures in the rural road network will need to be adhered to and road signs installed as needed according to the national regulations.
6.9 Could the project lead to an influx of project workers?	Moderate	Moderate	Contract Conditions: <ul style="list-style-type: none"> - Gender-based violence, sexual harassment and sexual exploitation and abuse will lead to an employee's termination of contract under the contractor's code of conduct. - Influx of workers from outside project area limited to the minimum necessary; - Fair and equal wages along and living conditions
Physical and economic resettlement	Risk Rating	Consequence	Guidance for Project
7.4 Could the project result in impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories	Moderate	Minor	Subprojects (Infrastructure funded by Investment grant) to incorporate provision based ESMP in reference to national and/or provincial guidelines.

and/or resources?			Work commencement conditional to satisfactory implementation of RAP by Project/Local Government, as certified by the supervision engineer. Procedure to the outlines in PIM for each subproject.
Financial Intermediaries and direct investments	Risk Rating	Consequence	Guidance for Project
8.1 Could the investment be granted to an institution that does not have an environmental and social policies and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	Moderate	Moderate The institution does not have an ESMS in place, but several individual E&S policies. The policies are therefore not considered as transparent. The reporting on E&S is available upon request.	Detailed ESGMS (Environment, Social and Governance Management System) based on Government of China policies. Incorporate validation as part of due diligence exercise prior to approval of direct investment agreement. Provision in PIM for FIs and Direct Investment. Adoption of measure and monitoring and reporting
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	Moderate	Moderate The institution does not employ an ES Officer, but has sufficiently trained field staff available to monitor the impact of the operations of the institution.	Project ES To provide support and oversight to and potential hire additional consultants to support implementation, monitoring and reporting.

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Chapter 9: SECAP Plans

9.1 SECAP Assessment and ESMP

9.1.1 SECAP Assessment and findings

CF Annex 5 a of the PDR

9.2 STAKEHOLDER ENGAGEMENT PROGRAM

9.2.1 Purpose of the Stakeholder Engagement Program

The Stakeholder Engagement Program for the HGDP project serves as a crucial framework for managing interactions with various stakeholders. It ensures that the project's objectives align with stakeholder expectations, promotes open communication, mitigates potential risks, and fosters inclusive decision-making. Stakeholders, including local communities, government entities, and international organizations, play a pivotal role in determining the project's success. This plan seeks to identify and engage with all relevant stakeholders, understand their interests and concerns, and develop tailored strategies for effective communication and collaboration.

Moreover, the Stakeholder Engagement Plan serves as a risk mitigation tool, helping anticipate areas of potential conflict and resistance due to conflicting interests or lack of information. This approach fosters a collaborative environment where stakeholders feel valued and included, increasing their likelihood to support the project and advocate for its success. Additionally, involving stakeholders in the decision-making process enhances the project's legitimacy and ownership, leading to more sustainable and acceptable results.

9.2.2 STAKEHOLDER ENGAGEMENT PROGRAM

During inception and design mission of HGDP, the mission team has discussed and consulted with staff and representatives of relevant organization, including Development and Reform Committee (PDRC), Department of Finance, Department of Forestry, Department of Water Resources (DOWR), Agriculture and Rural Department (ARD) and the Department of Transport (DOT) at provincial level; the Bureau of Development and Reform (BODR), the Bureau of Finance, the Bureau of forestry Bureau, the Bureau of Water Resources (BOWR), the Agriculture and rural Bureau, the Bureau of Transport (BOT), Women's Federation (WF) and Youth League (YL) at county levels; and KFW. Some villagers, cooperatives and enterprises were visited and discussed.

9.2.3 Purpose and Timing of Stakeholder Engagement Program

The Stakeholder Engagement Program for the HGDP project is designed to create a structured and proactive approach to managing interactions with stakeholders throughout the project's life-cycle. It aims to ensure that the project's objectives align with stakeholder expectations, foster open communication, and promote inclusive decision-making. The program's timing is aligned with the project's various phases, from planning and implementation to monitoring and evaluation.

9.2.4 Proposed Strategy for Information Disclosure

Transparency plays a pivotal role in our Stakeholder Engagement Program for the HGDP Project. The strategy for information disclosure is meticulously designed to ensure that stakeholders have ready access to accurate and timely information regarding the HGDP Project. The strategy encompasses the following key elements:

- Public awareness campaign: A robust public awareness campaign in the project area will

be initiated aiming at educating stakeholders, with a particular focus on the HGDP, about the project's goals, expected outcomes, and their roles in the process.

- Information sharing workshops: Regular workshops will be conducted to share pertinent project-related information, update stakeholders on progress, and discuss challenges. These workshops will also provide a platform for stakeholders to pose questions and seek clarifications.
- Dedicated project website and WeChat account: A dedicated project website and WeChat account will be established, acting as a centralized hub for project updates, reports, and relevant documents. Ensuring that the website is user-friendly and accessible to all stakeholders is a top priority.
- Community broadcast and WeChat account/WeChat group: Utilizing local community broadcast stations and WeChat account/WeChat group, the project information will be disseminated to all villages in local languages.
- Information pamphlets and brochures: Create informative pamphlets and brochures, simplifying complex project details to enhance comprehension for all stakeholders.
- Exchanging meetings: Meetings will be organized to facilitate direct interaction between project representatives and stakeholders. These forums will address concerns and offer updates in an open and transparent manner.

9.2.5 Proposed Consultation Strategy

The proposed consultation strategy of HGDP is geared towards proactively engaging stakeholders in the decision-making process and empowering them to contribute their insights. The strategy encompasses the following components:

- Villagers’ Meetings: Regular villagers’ meetings will be held to gather feedback, listen to concerns, and involve stakeholders in discussions and decision-making about project planning and implementation.
- Focus Group Discussions: Focus group discussions will be held with representatives from HGDP and other stakeholder groups to delve deep into specific issues and identify collaboratively develop solutions.
- Participatory Workshops: Facilitative participatory workshops will enable stakeholders to actively participate in planning and decision-making processes, ensuring their voices are heard and valued.
- Surveys and Questionnaires: In different stages of HGDP, surveys and questionnaires to stakeholders will be applied to collect structured feedback on various project aspects, providing quantifiable data to guide decision-making.
- Digital Platforms for Virtual Consultation: Digital platforms for virtual consultations will be provided to allow stakeholders who may not attend in-person meetings to actively participate.

By implementing these strategies for information disclosure and consultation, the HGDP Project aims to ensure that all stakeholders are actively engaged and have the opportunity to shape the project's outcomes in a meaningful and inclusive manner, leading to positive impacts on their livelihoods and empowerment.

Table 3. Proposed consultation strategies

Consultation strategy	Stakeholders	Information to be shared	Information to be obtained	Frequency
Villagers’ Meeting	Villagers	Project information	Villagers’ feedback, decisions	When necessary
Focus Group	Relevant	Issues raised	Information	When

Discussions	representatives from HGDP and other stakeholder groups	during project process	from different stakeholders, relevant coping strategies	necessary
Participatory Workshops	Representatives from HGDP and other stakeholder groups	Information related with the issue for decision-making	Concern from different stakeholders	When necessary
Surveys and Questionnaire	Villagers, cooperatives, and enterprises	Project information	Project progress, outputs, outcomes	Annual survey, Three rounds questionnaire (base-line, mid-term and end-line)
Digital Platforms for Virtual Consultation	who may not attend in-person meetings			As appropriate

9.2.6 Responsibilities for Implementing Stakeholder Engagement Activities

Stakeholder engagement process will be upheld by dedicated team, with specific roles and responsibilities. The Gender and youth coordinator, along with the Monitoring and Evaluation (M&E) Officer at both provincial and county PMO, will provide essential information for decision-making to achieve the objectives outlined in this Strategy.

The implementation of stakeholder engagement plan will ensure IFAD's core targeting approach, by targeting smallholder farmer households including vulnerable smallholder farmer household, being a vehicle for women's transformation through providing them increased opportunities for income and employment in manner that is gender sensitive and empowering for them, and integrating rural youth along the selected value chains.

The PMOs will establish effective communication channels to engage stakeholders and maintain an up-to-date stakeholder database. Furthermore, the PMOs will organize and facilitate stakeholder meetings, workshops, and consultations, ensuring their seamless execution. The PMOs will also be responsible for communicating project updates, progress, and relevant information to stakeholders on a regular basis. Additionally, the PMOs will address stakeholder feedback and incorporate it into project decision-making processes.

Implementation arrangements at the province levels will possess the capacities for planning, procurement, financial management, monitoring and evaluation, interdepartmental coordination, managing basic implementation structures in decentralized locations, and designing participatory local community operations manuals, among other functions.

9.2.7 Grievance Redress Mechanism (GRM) for the HGDP Project

IFAD requires to adopt an easily accessible grievance mechanism at project-level in order to receive and resolve concerns and complaints of people who may be adversely affected or potentially harmed by IFAD-supported projects that fail to meet the SECAP Standards and related policies. Furthermore, IFAD requires that project-affected people are informed about the existence and functioning of this mechanism in any easily understandable form

and language, and to integrate it into the overall community engagement strategy. The grievance redress mechanism should incorporate existing formal and informal grievance mechanisms, strengthened or supplemented as needed for each specific project, and in proportion to the expected risks and impacts of the project. Project-affected people may use the grievance mechanism without retribution or reprisal, and the grievance mechanism should not impede access to other judicial or administrative remedies available under national law or through existing arbitration procedures or other accountability mechanisms.

The Project will establish a Grievance Redress Mechanism (GRM) designed to seek/generate feedback from and to project stakeholders and address/ respond to grievances, problems, issues or complaints related to project activities and project environmental and social performance. The Project will ensure through the GRM that all project stakeholders will be aware of their rights to access and/or will have access to the GRM at all project management levels, which will be provided in a transparent manner free of costs and without fear of reprisal or retribution on the part of aggrieved parties. In addition, the Project's GRM will help ensure that the rights and interests of project stakeholders are protected from unforeseen lapses in said project performance and that all concerns arising therefrom in all project phases will be effectively addressed. To achieve these ends, the Project will regularly engage project stakeholders and provide them information on the processes and means of raising and addressing grievances through the GRM.

The project will follow IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals and communities to contact IFAD directly and file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP.

IFAD's Grievance and Redress Mechanism shall be fully explained to stakeholders during the programme's start-up workshop and to beneficiaries during the programme's activities. The complainants should first bring the matter to the attention of the County Project Management Offices (CPMOs) of the County Forestry Bureau (CFB) or the Provincial Project management Office (PPMO) of the Provincial Forestry Department (PFD). If the PMOs or PPMO do not adequately respond, the matter may be brought to the attention of IFAD. The issue may also be brought straight to IFAD if the complainants feel they might be subject to retaliation if they bring it first to the PMOs or the PPMO.

Grievances shall be addressed at the field level by the project team which will be the first layer of redressal mechanism. If the grievance is not resolved at the field level, it will be escalated to the PPMO and then to IFAD who will be responsible for addressing grievances related to violations of the Programme's SECAP reflecting IFAD's social and environmental policies and standards.

As provided by IFAD's Policy on prevention and response to Sexual Exploitation and Abuse (SEA, 2018), all contracts with project personnel, contractors, service providers and other third parties, that are funded with IFAD funds, must include provisions: (i) for prohibiting acts of SEA; (ii) that establish the obligation to immediately report to IFAD or the Government incidents of SEA; and (iii) that establish immediate termination of contract based on proven acts of SEA.

Likewise, all contracts with contractors and service providers and other third parties must include provisions for the protection of labour rights and working conditions.

All grievances (including reports on SEA and violations of worker rights and conditions) received and action taken to address them will be reported to the relevant PMO, PPMO and the Steering committee. The CPMOs and the PPMO shall ensure that all complaints received and actions taken are included in the progress reports to IFAD.

9.2.8 Monitoring and Reporting Strategy

Effective monitoring and reporting are critical elements of the HGDP project. They are essential for tracking progress, identifying challenges, and ensuring transparent and efficient stakeholder engagement throughout the project's life-cycle. This section outlines the structure and approach to monitoring activities and reporting to our valued stakeholders.

9.2.8.1 Stakeholder Engagement in Monitoring Activities

Monitoring and Evaluation (M&E) system for HGDP will be developed as a tool for effective project implementation management. The M&E system will enable IFAD, the Government and the stakeholders to monitor Project's internal performance. The objective of the tool is to collect reliable data and information for measuring performance and progress towards achievement of results; and to provide information about success and failures, so that corrective measures can be taken for successful implementation of project activities. It will be also used as a learning tool to provide information for critical reflection on project strategies and operations and supporting decision-making at various levels as a basis for results-based management. The HGDP project understands the significance of involving stakeholders in monitoring activities to secure their ownership, accountability, and continuous feedback. To achieve this, the project will implement the following steps:

- Collaborative Monitoring Framework Development: The project will engage relevant stakeholders, including representatives from VIG, cooperatives, smallholder farmers, enterprises and other key stakeholders, in the co-creation of the project's monitoring framework. This inclusive process involves identifying essential indicators, data collection methods, and the frequency of monitoring activities.
- Participatory Data Collection: Stakeholders will actively participate in data collection exercises, surveys, and assessments. The PPMO will work closely with community members to collect data on project outcomes, impacts, and challenges encountered during implementation. This participatory approach ensures that local voices are heard and considered.
- Community-Led Monitoring: The project will encourage community-based monitoring systems. This approach empowers local communities to actively track project progress, identify issues, and report back to the PMO and relevant authorities. Local ownership of the monitoring process is central to its success.
- Feedback Mechanisms: To maintain transparency and active participation, the project will establish regular feedback mechanisms. Stakeholders will be encouraged to share their observations, concerns, and suggestions concerning project activities. This feedback will be used to address any emerging issues promptly, ensuring timely adjustments.
- Joint Review Meetings: Joint review meetings will be organized at annual survey, supervision, mid-term and completion M&E, bringing together stakeholders and the M&E team. During these meetings, progress will be assessed, findings discussed, and corrective actions or adjustments to project activities will be collaboratively planned based on the shared insights.

9.2.8.2 Transparent Reporting to Stakeholders

Transparent and timely reporting is vital for maintaining stakeholder trust and keeping them well-informed about the HGDP project's progress. The project will implement the following reporting mechanisms:

- Regular Progress Reports: The project will prepare semi-annual and annual progress reports, detailing achievements, challenges, and upcoming activities. These reports will be widely shared with stakeholders and disseminated through various communication channels, including villagers' meetings and online platforms.
- Bidding announcement: Relevant project procurement will be publicized through various channels under the government supervision and management.
- Regular M&E reports: The project will conduct annual M&E activities according to the

M&E plan, and annual M&E reports will be widely shared with stakeholders and disseminated through various communication channels, including villagers' meetings and online platforms.

- Stakeholder Engagement Platforms: The project will utilize existing stakeholder engagement forums, such as PMO WeChat official account, VIG WeChat group, etc. to provide updates project progress information.

- Online Platforms and Project Website: The project website and online platforms will serve as central repositories for project reports, updates, and relevant documents. Stakeholders will have convenient access to this information anytime and from anywhere.

By involving stakeholders in monitoring activities and providing regular and transparent reporting, the HGDP project will build a sense of ownership, accountability, and mutual learning. These efforts will contribute to fostering stronger relationships with stakeholders and lead to more effective and sustainable outcomes for the communities and the overall success of the project.

9.3 Ethnic Minorities (indigenous people) Planning Framework (IPPF) and Free Prior Informed Consent (FPIC)

9.3.2 The Free Prior Informed Consent (FPIC)

The Free Prior Informed Consent (FPIC) plan follows the IFAD How-To-Do-Note (2021) on Seeking free, prior and informed consent in IFAD investment projects.

What is free, prior, and informed consent?

Indigenous peoples have the right to self-determination, as well as the right to develop priorities and strategies for exercising their right to development – in other words, the right to participate fully and effectively in decision-making processes that affect them.

IFAD has a duty to ensure they can exercise these rights – and that includes ensuring free, prior and informed consent (FPIC) for grant and loan recipients.

- Free means no coercion, intimidation, or manipulation was used to obtain consent.
- Prior means that consent is sought sufficiently in advance, with enough time given to respect indigenous peoples' consensus processes.
- Informed means that the information provided covers (at least) the nature, size, pace, duration, reversibility, and scope of the proposed project or activity.

FPIC aims at improving the effectiveness of investments and at enhancing the community ownership of the investment, its results, and moreover, its sustainability.

Under HGDP, the PPMO is responsible for seeking and obtaining FPIC. FPIC is methodologically solicited through consultation and the participation of communities and local institutions at specific stages of the project cycle. Under HGDP, the CPMO will be responsible for seeking FPIC with technical support from the PPMO.

Free, prior and informed consent should be sought sufficiently in advance of commencement or authorization of activities, taking into account ethnic minority' own decision-making processes, in phases of assessment, planning, implementation, monitoring, evaluation and closure of a project.

FPIC is a proactive approach to identify development pathways with local communities and it is applied in two scenarios (IFAD, 2021):

- When IFAD-funded projects are likely to have an impact on the land access and use rights of rural communities
- When IFAD-funded projects are targeting rural areas that are home to indigenous peoples.

Based on the above two scenarios, FPIC needs to be sought either during project design or during project implementation.

Step 1: Developing socio-Cultural and land use Assessments

The socio-cultural assessments will establish:

- The community members in the project area who and where might be affected and who can gain more rights through careful scheme design based on FPIC process, and who have the right to give or withhold consent;
- Customary laws, informal rules and organizing practices;
- Types of livelihoods and resources communities depend upon; including the mapping of existing ethnic minorities traditional knowledge and practices that can be potentially promoted
- Land use mapping indicating existing land use and land use as proposed by the communities to accommodate the project, and as agreed with the village authorities;
- Institutions, governance systems and decision-making process;

- Existing dimensions of traditional leadership (roles and status) and traditional mutual support and solidarity/reciprocity mechanisms etc.;
- Social, economic, cultural and spiritual relations with lands; and,
- Possible consequences for local communities resulting from the change on the status of land and resources emerging from the proposed schemes.

Step 2: Identifying Decision-Making Institutions and Representatives

In line with the existing governance system of the minority community, the key institution is the villagers' committee which is elected by the villagers according to Organic Law of villagers' Committees, other key institutional actors identified by social-cultural assessment will also be involved.

Step 3: Consultations leading to FPIC on the proposed project interventions

Following steps 1 and 2 above, consultations will be held with the target communities in selected villages before planning of interventions is initiated. The consultations will:

- Confirm that the project will support community-driven initiatives;
- Share the objective and scope of the proposed activities and investments with the communities directly, or with villagers' committee and identified community's representatives;
- Clearly inform the community on the actors financing and implementing the project and their respective responsibilities;
- Provide clear and transparent information on the benefits and risks of the project;
- Share the findings of the socio-cultural, land use and environmental assessment and reality check/confirmation of findings;
- Ensure inclusive participation of all groups (men, women, young people, the elderly, etc.);
- Confirm project related land tenure status of the land in the selected village;
- Record and address questions, concerns, opinions and comments and seek agreement.

Step 4: Formalizing the Consent Agreement

Once project activities and project sites requiring FPCI agreement are identified, this will be formalised in a written form. The effective time at which the consent agreement would be formalised will be agreed upon during the consultation process and needs to be formalised before any investment is made.

The format for a consent agreement would, among others, include:

- Project activities on which consent is provided;
- Respective expectations;
- Proposed project duration, expected results and activities;
- Participatory monitoring and verification plan and procedures;
- Identification of grievances procedures and mechanisms;
- Terms of withdrawal of consent;

The FPIC Agreement and record of process will be made available through means that are accessible to all stakeholders and parties involved.

(i) Disclosure

IFAD's Policy on the Disclosure of Documents enables project design documents to be disclosed prior to the Executive Board session at which the project is to be considered. Thus, this FPIC Implementation Plan will be disclosed together with the Programme Design

Report (PDR), the SECAP and ESCMP, to be submitted for IFAD review before the Executive Board.

(ii) Documenting the FPIC Process

FPIC process will be documented through minutes of consultations, videos and audio where feasible, and FPIC agreements documents, also keep records of consultations undertaken:

- how participants were selected;
- their roles or accountability links to their communities;
- how they were invited;
- which consultations they participated in;
- what documentation/information they received beforehand, and in which mean;
- who participated;
- what was discussed.

(iii) FPIC agreements

Often FPIC is expressed as an agreement between CPMO and the involved local communities. These agreements should clearly articulate: what has been agreed (e.g. issues, commitments, time frames, budgets, roles, responsibilities); who entered into the agreement (clearly identifying the individuals involved as well as their title and role); and what mechanisms have been set up to maintain dialogue and address disagreements.

(iv) monitoring and evaluation

FPIC will be included in the monitoring and evaluation by ethnic minority disaggregation of project indicators, and taking track the implementation of FPIC mechanisms.

(v) Budget

The budget for IPPF and FPIC related activities are included in management budget.

9.3.3 Grievance Redress Mechanism (GRM) for the HGDP Project

IFAD requires to adopt an easily accessible grievance mechanism at project-level in order to receive and resolve concerns and complaints of people who may be adversely affected or potentially harmed by IFAD-supported projects that fail to meet the SECAP Standards and related policies. Furthermore, IFAD requires that project-affected people are informed about the existence and functioning of this mechanism in any easily understandable form and language, and to integrate it into the overall community engagement strategy. The grievance redress mechanism should incorporate existing formal and informal grievance mechanisms, strengthened or supplemented as needed for each specific project, and in proportion to the expected risks and impacts of the project. Project-affected people may use the grievance mechanism without retribution or reprisal, and the grievance mechanism should not impede access to other judicial or administrative remedies available under national law or through existing arbitration procedures or other accountability mechanisms.

The Project will establish a Grievance Redress Mechanism (GRM) designed to seek/generate feedback from and to project stakeholders and address/ respond to grievances, problems, issues or complaints related to project activities and project environmental and social performance. The Project will ensure through the GRM that all project stakeholders will be aware of their rights to access and/or will have access to the GRM at all project management levels, which will be provided in a transparent manner free of costs and without fear of reprisal or retribution on the part of aggrieved parties. In addition, the Project's GRM will help ensure that the rights and interests of project stakeholders are protected from unforeseen lapses in said project performance and that all concerns arising therefrom in all project phases will be effectively addressed. To achieve these ends, the Project will regularly engage project stakeholders and provide them

information on the processes and means of raising and addressing grievances through the GRM.

The project will follow IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals and communities to contact IFAD directly and file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP.

IFAD's Grievance and Redress Mechanism shall be fully explained to stakeholders during the programme's start-up workshop and to beneficiaries during the programme's activities. The complainants should first bring the matter to the attention of the County Project Management Offices (CPMOs) of the County Forestry Bureau (CFB) or the Provincial Project management Office (PPMO) of the Provincial Forestry Department (PFD). If the PMOs or PPMO do not adequately respond, the matter may be brought to the attention of IFAD. The issue may also be brought straight to IFAD if the complainants feel they might be subject to retaliation if they bring it first to the PMOs or the PPMO.

Grievances shall be addressed at the field level by the project team which will be the first layer of redressal mechanism. If the grievance is not resolved at the field level, it will be escalated to the PPMO and then to IFAD who will be responsible for addressing grievances related to violations of the Programme's SECAP reflecting IFAD's social and environmental policies and standards.

As provided by IFAD's Policy on prevention and response to Sexual Exploitation and Abuse (SEA, 2018), all contracts with project personnel, contractors, service providers and other third parties, that are funded with IFAD funds, must include provisions: (i) for prohibiting acts of SEA; (ii) that establish the obligation to immediately report to IFAD or the Government incidents of SEA; and (iii) that establish immediate termination of contract based on proven acts of SEA.

Likewise, all contracts with contractors and service providers and other third parties must include provisions for the protection of labour rights and working conditions.

All grievances (including reports on SEA and violations of worker rights and conditions) received and action taken to address them will be reported to the relevant PMO, PPMO and the Steering committee. The CPMOs and the PPMO shall ensure that all complaints received and actions taken are included in the progress reports to IFAD.

Chapter 10: Terms of Reference of Key PMO Staff

1. The success of the project relies on a robust project management system composing of well-staffed offices at provincial and county levels, plus necessary tools, procedures, guidelines and manuals that providing desired guidance for various management functions of the offices. Provincial Project Management Offices (PPMO) and County Project Management Offices (CPMOs) will operate under the guidance of Provincial Department of Forestry as the lead agency. Specifically, the Provincial Forestry Fund Station (PFFS) within PFD would take lead responsibility for project implementation management, supervision and evaluation, and will act as the Provincial Project Management Office (PPMO). Additional support will be mobilized from technical divisions of PFD if required. Major implementation responsibilities of the project lie with the counties. County Project Management Offices (CPMOs) will be established at the County Forestry Bureaus. Relevant technical bureaus in the counties (such as agricultural and rural affairs, water conservancy, metrology, transportation bureaus, etc.) will be mobilized to support the project implementation in the related activities of the project as needed.
2. Prime responsibilities of the CPMOs will include, inter alia, ensuring that project's implementation strategy is effectively applied in all activities, annual work planning and budgeting (AWPB) at their respective level, facilitate beneficiary targeting, overseeing business planning, value chain investment from either government or private sector at the farm level. In addition, the CPMOs will undertake generic project management tasks such as financial management, procurement, knowledge management, project reporting as well as monitoring and evaluation etc.
3. CPMOs will be staffed adequately with the key functions necessary for the management of the project, including but not limited to an project director, a planning and M&E Officer, focal points for SECAP, gender and youth, a financial officer and accountant, and a knowledge management officer, among others. The main responsibilities of the key PMO staff are outlined indicatively as follows:
4. **PMO Director/Officer:** The director of each PMO will undertake the overall responsibility of project management by coordinating the relevant stakeholders and PMO staff to ensure that the project implementation complies with the project Loan Agreement, strategy and requirements for reaching its objectives and goal. His/Her specific responsibilities mainly include the following points:
 - Staff the PMO with qualified personnel in accordance with the requirements set forth in the Loan Agreement, assigning them with appropriate responsibilities, manage performance assessment of PMO staff at year end in reference to the responsibilities with achievements of each PMO staff;
 - Administer management/operating regulations of the PMO to ensure that all PMO staff perform their duties properly and that project property, documentations, data and records are filed and kept properly;
 - Plan and organise necessary trainings and workshops for PMO staff and other relevant project personnel to raise their capacity, awareness, and accountability in project implementation, with particular focus to the trainings on project management, implementation modalities, M&E, gender, participatory planning, targeting, and technical themes relevant to the project;
 - Facilitate PMO staff executing their duties properly and ensure that all reports will be submitted to IFAD timely as required;
 - Coordinate relevant institutions and implementing agencies to formulate project implementation plan, particularly AWPBs, in accordance with project strategy and approach, including the identification and selection of target groups and beneficiaries for each value chain;

- Coordinate relevant institutions to ensure timely allocation of project resources to the implementing agencies to carry out the project, including IFAD loan and counterpart funds, and monitor the use of project resources to ensure that the project fund are not misused;
- Overseeing the development of Inclusive & Sustainable Production Management Plans and Inclusive Business Plan Development being the two critical project activities to achieve project objectives.
- Supervise the implementation of AWPBs to ensure that the project is implemented and appropriately targets to the eligible beneficiaries;
- Coordinate relevant institutions to ensure that mainstreaming themes and SECAP related requirements are adequately addressed in project implementation;
- Overseeing project M&E activities, including the benchmark/baseline, mid-term, and completion surveys. Guide the project implementation with M&E findings and report the results to IFAD as required;

5. **M&E Officer:** The M&E officer, under the guidance of project director, will undertake the responsibility of monitoring the project implementation, including project progress, achievements, availability of resources, expenditures, targeting, and mainstreaming themes, and collecting relevant data and reporting to project director to ensure that the project activities are implemented in accordance with project strategy and with approved AWPBs. The specific responsibilities are as follows:

- Develop project monitoring strategy and action plan, including results indicators and related methodology, responsible parties, frequency etc. through consulting with relevant implementing agencies;
- Development monitoring plan for key processes and actions of the project implementation;
- Monitor the physical and financial progress and achievements of the project along the defined output and progressive indicators;
- Monitor the key milestones of the project, especially in relation to financing and disbursement, procurement and contracts execution, delivery of AWPBs etc..to support the project director in his/her overall management of the project;
- Cooperate with relevant implementing agencies to monitor if the implementation of project sub-activity adequately target the intended beneficiaries appropriately in accordance with the project strategy;
- Assist project director to plan and organise assessments/evaluations of project outcomes and impact, including the benchmark/baseline, mid-term, and completion surveys as well as other irregular assessment activities;
- Plan and organise M&E training for relevant personnel to improve their capacity in performing M&E activities, including M&E methodology and techniques, data collection, data analysis and reporting;
- Prepare M&E report and project progress report and submit them to the next reporter(s) on time as required;
- Report to PMO director regularly with proposals based on the analysis of M&E data to ensure that the project activities are implemented in accordance with the project strategy and approach.

6. **Gender and Youth Coordinator (GYC):** The GYC, under the guidance of project director (at province and county levels), will undertake the responsibility of ensuring the dimensions for being a gender transformative and youth sensitive project are adequately responded and properly addressed, and that necessary action plans are developed and followed. The role of the GYFC is mainly to guide project stakeholders in adopting gender transformative and youth sensitive approaches in project implementation, developing and following up on specific action plans, facilitating capacity and awareness building of the stakeholders, monitoring actions and results etc. The specific duties of the project GYFC include:

- Develop project gender strategy and action plans related to gender and youth, through consulting with relevant stakeholders and implementing agencies;

- Coordinate with relevant institutions and implementing agencies to fully address gender issues and youth prioritization in the formulation of AWPBs;
- Coordinate and facilitate the implementation of targeting guidelines with appropriate guidance and process to reach women, youth, indigenous groups and disadvantage groups in the project area, and ensure their meaningful participation and share of benefits from project interventions;
- Supervise the implementation of gender and youth action plans through cooperation with the M&E officer to ensure equitable participation by men, youth and women in decision-making and project implementation;
- Integrate gender, youth and targeting in the M&E system, in the AWP/Bs and Progress reports and project components and track the performance;
- Undertake regular capacity assessment and provide capacity-building for staff at the field level, PMU, implementing partners and service providers on gender and youth;
- Coordinate with relevant institutions and implementing agencies to create an enabling environment for women and youth to play an effective and broad role in project activities and to ensure that women focused and youth sensitive activities are conducted and attention will be drawn to enhance the quality of such activities to benefit women;
- Plan and organize gender transformation and youth sensitive training for relevant project staff involved in the project implementation, promote and disseminate the project's gender approach at all stakeholders;
- Coordinate with WFs and youth league to foster the capacity building of women as necessary, in dimensions relevant to gender transformation and youth sensitivity implementation;
- Monitor resources allocation to support gender and youth related activities and assess and report results achieved for adaption or improvement as necessary;
- Facilitate learning and sharing among IFAD projects and with other partners in gender and youth related areas;
- Document good practices, outcome and impact of project intervention on youth empowerment, gender equality and women's empowerment for cross-learning and scaling up;

7. **SECAP/safeguard Specialist** has a role in the P and CPMO to continuously monitor the prevailing and emerging risks of the project in relation to the dimensions articulated by the IFAD SECAP guideline. The focal point will facilitate and follow up the implementation of the related plans (ESCOMP, IPP/IPF, SEP, GRM) to mitigate the potential risks of the project. The focal point will also provide capacity and awareness building to the involved stakeholders of the project. Specifically, he/she will:

- Acquaint him/herself of the SECAP guideline and project SECAP review to have adequate understanding of the risk dimensions, mitigation suggestions and actions, inherent and residue risks;
- Update the various plans and actions suggested by the design, follow up with the implementation of these plans by clarifying actions, actors, resources, timeline and monitor the undertaking and results of these actions;
- Interact with or collect feedback from project beneficiaries on their perception of project risks and mitigating actions taken or to be taken, relating to social, environmental and climate factors. On the social aspects, special attention will be given to the inclusion, benefit and rights of special groups such as women, ethnic minorities and employees to enterprises
- Monitor evolving and emerging situations in the project area in relevant to the project risk factors, report and update risks to the project management and IFAD as appropriate;
- Organize advocacy and training activities to relevant stakeholders to build their awareness and understanding of SECAP, including the risks and responses;
- Support the project management and IFAD in the annual update of the IPRM;

- Inform project directors on the considerations for risks during the making of AWPB and management decisions;

8. **Project Accountant:** The project accountant, under the guidance of project director, will take the responsibility of managing the Project Account in the financial platform embedded in the Management Information System of the project. He/she shall maintain a separate account and records, prepare financial statements of the operations, resources and expenditures related to the project, set up accounting subjects, transfer project resources to relevant implementing agencies; preparing quarter Interim Financial Statement or otherwise ensure time record of project expenses incurred during the month/quarter; prepare IFR based withdrawal application and supporting documents to ensure that the project resources are well managed and used for project implementation in line with the Financing Agreement and the approved AWPBs. His/Her specific responsibilities are as follows:

- Update, under guidance of project director, financial management regulations and set up accounting subjects for the management of project resources;
- Manage the project account under the guidance of project director, maintain a separate account and records and thereafter prepare the financial statements of the operations, resources and expenditures related to the project, submit the financial statements through PPMO to IFAD timely as required after confirmation and approval of PMO and relevant departments;
- Well manage the flow and expenditures of project funds by subjects, and properly file and retain the records evidencing project expenditures for annual audit by independent auditors and for inspection by the representatives of IFAD;
- Prepare withdrawal application and related documents of IFAD loan proceeds on a frequent basis, well manage the funds in the project account, timely transfer of project funds to relevant implementing agencies for carrying out the project;
- Supervise the use of project resources through cooperation with the M&E officer. Provide project financial progress and projection whenever required by project director or for IFAD supervision missions;
- Plan and organise necessary trainings or hold workshops for relevant staff to improve their capacity in the project financial management, financial reporting and disbursement management;
- Support annual audit to the project.

9. Procurement Associate

Under the supervision of the Regional Project Director and/or Deputy Project Manager:

- In general, in close coordination with the PMU Project Manager provide strategic and operational guidance and assistance to different procurement activities of the PPMO/CDICs/CPMO.
- In collaboration with the PPMO Project Manager review Project Procurement Plan before submission in the IFAD OPEN (Online Procurement End to End system). Respond to requests for information forwarded in IFAD OPEN.
- Monitor contract implementation and primarily responsible for PPMO wide contracts management.
- Ensure timely updating of PPMO data in IFAD Client Portal Contract Management Tool (ICP-CMT)
- Provide technical assistance to project procuring entities in the preparation of draft bidding documents including technical specifications of goods and terms of reference for consulting services ensuring compliance with national procurement law consistent with IFAD Project Procurement Guidelines.
- Conduct initial review, at PPMO level, of proposed bidding documents, bid evaluation reports, draft contract in procurement packages subject of request for IFAD No Objection as per applicable Project Procurement Arrangements .

- Assist the procuring entities of the Project in the preparation of the PPMP and consolidate and prepare the Annual Procurement Plan (APP) taking into account the type of procurement per item and threshold requiring prior review;
- Evaluate and assess every item in the APP i.e. services, goods and works, and ensure the procurement of the same within then timelines in close coordination with the procuring entity;
- Coordinate with the CMIC's in the review, evaluation, procurement and monitoring of the nfrastructures to be procured by the implementing CMIC's and CPMO's;
- Assist project proponents of Matching Grants in their procurement process, i.e. procurement recording/documentation, identification of suppliers, conduct due diligence and evaluation of supplied items, among others. Ensures that the procurement processes are completed within the timelines as agreed.
- Maintain and update procurement records and stock inventory and indicating therein re-order points to ensure availability of needed office supplies;
- Monitor, assess and ensure that all project procurements abide by existing national procurement regulations and procedures;
- Require procuring entities to retain electronic copies of all project procurement documents for IFAD review.
- Review purchase contracts and provide recommendation to management;
- Conduct field visits to monitor, evaluate, conduct physical check and assess procurements process, records and stock inventories at the RPMO level to ensure compliance to existing rules and standards;
- Prepare Monthly Calendar of activities and Monthly Accomplishment Report of the Unit assigned and attend meetings to represent project office as required;
- Performs other duties and responsibilities that may be assigned by the Regional Project Director/ Deputy Project Manager.

Qualification Standard:

- Education: Bachelor's degree in either Accounting, Economics, Marketing, Public Administration, Engineering or other related discipline. Master's degree or units earned is preferred.
- Experience: At least four (4) years in position/s involving the procurement process, contract management between the suppliers, with background in project development, and evaluation, preferably in foreign assisted projects implemented by an economic government agency.
- Training: At least twenty-four (24) hours of training in planning and procurement, project development, coordination or related field.
- Competency:
- Knowledgeable in Government Procurement processes and donor funded procurement procedures would be an added advantage
- Knowledgeable in the procurement processes and tools from selecting vendors / due diligence, establishing payment terms, strategic vetting, selection, the negotiation of contracts and actual purchasing of goods;
- Experience in the preparation of AWPB, APP, PPMP, and the competitive bidding process;
- Knowledgeable in Microsoft Office (Word, Excel, and Powerpoint)

Annex to Chapter 7 - Financial Management and Procurement Guidelines

Chapter 1: FINANCIAL MANAGEMENT MANUAL

1. HGDP will benefit from the ongoing IFAD funded project in Hunan Province, namely the H2RDP. Based on this previous experience to avoid delays at start-up the project will ensure that: (a) qualified finance staff be appointed at each county PMOs; (b) PIM and FMM be properly prepared, translated and distributed to PPMO and all county PMOs; (c) an accounting software in compliance with international standards be procured (d) retroactive financing will be used to speed up the initial activities as needed (e) continued capacity building for staff at the implementing agencies be conducted at an early phase.

Organization and staffing

2. The PMOs will be staffed with experienced and qualified officers in project management, financial management and procurement. They will also be assisted by officers from the technical line bureaus at each corresponding level. The PPMO and CPMOs will be in charge of the day-to-day management of project activities, overseeing the implementation and supervising the financial progress.
3. The PPMO organization structure will be composed of a Project Director who has the overall responsibility for the project, and a Finance Manager who has financial responsibility. A Finance assistant / consultant can also be staffed as the finance team of the PPMO. The technical officers in the PPMO will have review and pre-approval functions, similarly at the county PMOs.
4. The finance team of each CPMO will be composed of one Accountant with overall financial responsibility at the county level.

Budgeting

5. China has undertaken extensive reforms to its budgeting system over the past ten years. These have encompassed the entire budgeting cycle: formulation, approval, implementation and audit. Under its budgeting system, provincial, and local government, all activities of the government are predetermined and are set out in plans and programs.
6. The Hunan PPMO, after consultations with project stakeholders, shall prepare its annual budget, linking all the planned activities to the disbursement categories of the Schedule II of the Financing Agreement. This exercise will take place in advance of the preparation of the national budget to ensure that the required Government funds are timely allocated. All financing sources of the project should be clearly stated in a consolidated budget.
7. Counterpart funding will be allocated for the project by province, counties and districts. The government will ensure that counterpart funds are contained in the domestic fiscal allocations for each county and that they are released for the project on time. The counterpart funding will be maintained in the Treasury Accounts of the counties and will be used to pre-finance eligible expenditures of the project as well.

Internal controls

8. The internal control arrangements for the project should consider: (a) competent personnel with clear responsibilities and adequate segregation of duties; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verifications and controls for assets and financial documents of the project; (d) random independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Implementing Agencies of the project.
9. In the case of the project it is expected that for each payment sufficient reviews and checks and oversight will be carried out by the County Finance Bureaus.

10. The accounting software will be used by the project to strengthen the internal control of transactions.

Accounting and Financial Reporting

11. The project will procure a web-based integrated software to support the core management functions at the central and county levels, such as business plan development, financial management and project monitoring and evaluation. The financial management module of the integrated software will comply with the IPSAS Cash Basis of Accounting and will have the functionality to report by disbursement category, project component and financing sources at each level of implementation.
12. The Hunan PPMO will be responsible for the consolidation of the financial information produced in each county. The project will maintain separate accounts or ledgers at every level of implementation and for each financier to be able to generate independent financial information.

External Audit

13. HGDP's annual accounts will be audited by the Hunan Provincial Audit Office (HPAO) on an annual basis in accordance with International Standards on Auditing (ISA) and following the requirements of the IFAD Handbook for Financial Reporting and Auditing. The audited project financial statements together with the auditor's opinion (following ISA 700) will be submitted to IFAD in the language of the financing agreement between IFAD and China, in this case, the official language of the Financing Agreement is English which should be the main language for reporting. The audit report and separately the management letter, both documents in English and signed by the auditor should be submitted to IFAD within six months from the end of the fiscal year. The HPAO is constituted as an independent body under the National Audit Office (NAO). The NAO delegates to the Provincial Audit Offices (PAOs) the external audits of provincial donor-funded projects in China. IFAD has previous experience with other PAOs, and these audit arrangements are deemed acceptable to IFAD.
14. The objective of the project's annual audit is to enable the auditor to express an opinion on whether the project's financial statements present fairly, in all material respects, its financial position at the end of the fiscal year, and if the results of its operations and cash flows are in conformity with the accounting standards applied by the project as well as the confirmation by auditors whether the funds have been spent on the purposes intended. Compliance with financial reporting, auditing requirements and performance of the auditor will be monitored regularly and during supervision missions.
15. IFAD promotes public disclosure of projects financial information to enhance transparency and accountability. IFAD will disclose HGDP's audit reports, as appropriate, in line with the IFAD's disclosure policy. Management Letters issued by auditors are not subject to public disclosure by IFAD and therefore, the auditors should separate their main audit report with audited financial statements from the Management letter.

Disbursement

16. HGDP's withdrawal and utilization of loan proceeds are governed by the IFAD's Financial Management and Financial Control Handbook (FMFCH) and the Financing Agreement between IFAD and the Government of China. Applicable procedures for disbursement, financial reporting and maintenance of appropriate project records will be described in detail in the Financial Management & Financial Control Arrangements Letter (FMFCL) subsequently after the signature of the Financing Agreement.
17. Once the Financing Agreement of HGDP enters into force, the Ministry of Finance will on-lend the funding to the Hunan Provincial Department of Finance (HPDoF). At the same time – under the same terms and financing conditions - the HPDoF will on-lend the funding to the County Finance Bureaus.
18. According to the new Budget Law and Decree 85 issued by MoF, IFAD loan is required to be included in the government budgeting system. However, IFAD funds will be

managed by the government treasury. The County PMOs are responsible for preparing the project annual plan and submitting to PPMO for consolidation. Since the required counterpart funds will be fully raised by county government, the CPMOs will be responsible for ensuring that the required counterpart funds committed in county government's annual budget be available.

19. An online guided overview of the practices and procedures of IFAD is available for project staff. Project staff is encouraged to avail this training to ensure efficient disbursement and appropriate fiduciary control.
20. Two standard disbursement procedures are available for HGDP – **Advance withdrawal and Reimbursement.**

Advance withdrawal

21. This disbursement procedure is used to advance funds to a bank account as designated by the borrower (it uses imprest accounts or revolving funds with replenishment to a bank account designated to receive financing resources in advance). IFAD will place a ceiling on the amount to be advanced, which will be sufficient to cover the average projected eligible expenditures of HGDP for a period of six months. This modality is used to advance and/or replenish funds to a bank account as designated by the borrower. The Fund may place a limit on the amount to be advanced and/or replenished. Relevant details on the modality – which is project specific – are agreed between the borrower and the Fund and detailed in the FMFCL.
22. The ceiling amount will also depend on the level of expenditure reported, and the projections established on the AWPBs. IFAD will ascertain and certify clearance of the figure to be advanced, which may vary during the implementation of the project.
23. The advance withdrawal will be the principal method to be used for the disbursement of HGDP. The main conditions precedent to withdrawal the initial advance are: (i) evidence that the DA has been opened, and (ii) delegation of authority of the persons who will sign the withdrawal applications on behalf of the borrower as well as other pre-conditions that will be specified in section E of the Financing Agreement. HGDP will use the IFAD Client Portal (ICP) for the submission of withdrawal applications.

Reimbursement

24. This disbursement procedure will be applicable when eligible expenditures have been pre-financed by the project for suppliers of goods, works, consulting or other services that have been incurred by the project from its own funds.

Flow of Funds

25. The Hunan Provincial Department of Finance (DOF) will open and maintain a Designated Account (DA) for the exclusive use of the loan proceeds of HGDP. The DOF will be directly responsible for the management, maintenance, and reconciliation of the DA. The DA will be administered following revolving fund arrangements, in which the advance will be provided based on the cash forecasted amount reported in the IFR and the project would need periodically report justified expenditures against every reporting quarter when the expenditure incurs. Additional requirements to the revolving fund arrangements can be provided in Appendix 1 to the FMFCL.
26. The counties PMOs will prepare execution reports that will be reviewed by its corresponding County Finance Bureau before submission to the PPMO for additional review and consolidation. The DOF will provide final approval and transfer funds to the County Finance Bureaus. Then the finance bureaus at the request of the CPMOs will transfer funds to the Implementing Agencies (IAs) or pay Service Providers.

Detail Procedural Protocols of FMM

1.0 Introduction

27. The following manual outlines the financial procedures to be followed by the Project Management Offices (PMOs) during the following stages of the project cycle: i) preparation and planning, ii) implementation and iii) completion of the project. The

manual aims to describe in detail the necessary steps to be undertaken by the relevant project staff and the Finance Manager (FM) (interchangeably identified as the Finance Controller - FC) in particular, when undertaking actions related to a) planning and budgeting, b) accounting, c) records management, d) internal controls, e) flow of funds, f) withdrawal of financing proceeds, g) processing of payments, h) financial reporting, i) fixed asset management, j) audit arrangements, k) supervision by IFAD and l) project completion and loan closure.

28. This manual is to be considered a living document and it is to be reviewed at least once a year and updated as needed. It is to be read together with the Project Implementation Manual, the Procurement Manual, and the HR-manual. It is also important to note this manual makes references to the following IFAD key documents: Financing Agreement, IFAD General Conditions, FMFCL, IFAD Handbook for Financial Reporting and Auditing of IFAD – Financed Projects as well as the FMFC Handbook. Therefore, it is fundamental that the project staff, especially the PD and the FM master these documents before the implementation of the project begins.

1. Project Overview

Project name: **Hunan Green Development Project (HGDP)**

Project loan number: xxxxx

Effective date: xxxxx

Completion date: xxxxx

Closing date: xxxxx

Project costs: The Borrower and IFAD have agreed within the Financing agreement (FA) to allocate the financing to categories of eligible expenditures shown in the Schedule 2 of the FA. The schedule 2 also specifies the percentages of such eligible expenditures to be financed by the Financing: 100% net of tax (this will be updated after the loan negotiations)

Category	IFAD loan (*000 USD)	Eligible expenditures (%) net of Tax
Works	18,383	100%
Goods, Services & Inputs	29,558	100%
Equipment & Material	32,053	100%
Total	80,000	

(Table 1: Schedule 2 of the financing agreement – eligible expenditures by expenditure category)

29. In addition to IFAD financing the Project will also receive counterpart financing from the Government, equivalent to approximately USD 26,0 million. The counterpart financing will include 26,0 million in the form of taxes and duties. The project beneficiaries and private sector will also contribute approximately USD 129,2 million to the project.

1.2 Organizational Framework

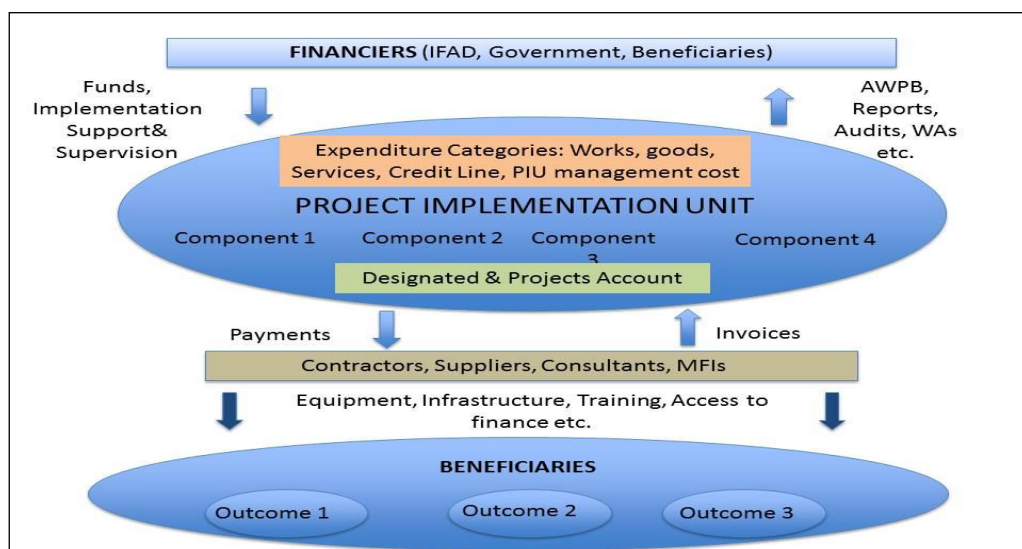
30. **(a) Lead implementing Agency:** The Hunan Provincial Forestry Department (PFD) has been appointed as a lead implementing agency. Specifically, the Forestry Station within PFD would take lead responsibility for project design, management, supervision and evaluation, and will act as the Provincial Project Management Office (PPMO). The PPMO will not be using IFAD loan to carry out its functions. It will mobilize adequate budgetary resources from the government budget to carry out its overall management responsibilities.
- (b) County Project Management Offices:** Major implementation responsibilities of the project lie with the counties. County Project Management Offices (CPMOs) will be established at the County Forestry Departments, and adequately staffed – including through the acquisition of capacity and services from the market.
- (c) Department/Bureaus of Finance:** The Department/Bureau of Finance at Provincial/County level will be responsible for administering programme resources, including the IFAD loan and counterpart funds.
- (d) Monitoring and Information System:** A management information system (MIS) which will be specifically developed for the project, and that will integrate information regarding project management, financial management and physical progress, allowing

real-time monitoring, evaluation and reporting, will be established to support the core project management functions at the provincial and county levels.

The project will (i) establish a control framework integrating periodic internal audits, independent external audits, and social safeguards to be adopted based on IFAD policies; (ii) adopt a good governance and mutual accountability framework to strengthen accountability and transparency in line with international best practices.(iii) outline the project specific financial management procedures and disbursement requirements in the PIM. (iv) establish a Management Information System (MIS) to support the core project management functions

1.3 Project Management Office

31. The overall responsibility for the implementation of the project will be with the Provincial Forestry Department (PFD) and County (CPMO) levels. PFD / CPMO will coordinate with other line departments/offices such as Finance etc. to provide support and inputs for the project.
32. Specifically, the Hunan Forestry Station within PFD would take lead responsibility for project design, management, supervision and evaluation, and will act as the Provincial Project Management Office (PPMO). The PPMO will not be using IFAD loan to carry out its functions.
33. PMOs are staffed with officers who need to have experience in project management, financial management, procurement, and monitoring and evaluation. They will also be assisted by officers from the technical line bureaus of Forestry and Finance at the corresponding level. PPMOs and CPMOs will be in charge of day to day management of project activities, overseeing project designs, implementing and supervising project activities, arranging for counterpart-funding and local labor contribution, preparing annual work plans, financial plans, procurement plans, monitoring and reporting on project progress, outputs, and outcomes.
34. To implement the project and its components, the project will receive funds from the financiers (IFAD, the government and beneficiaries), which will be channeled through designated and project accounts to cover project expenditures, in accordance to the Annual Work Plan and Budget (AWPB) and the expenditure categories as per Schedule 2 of the FA.

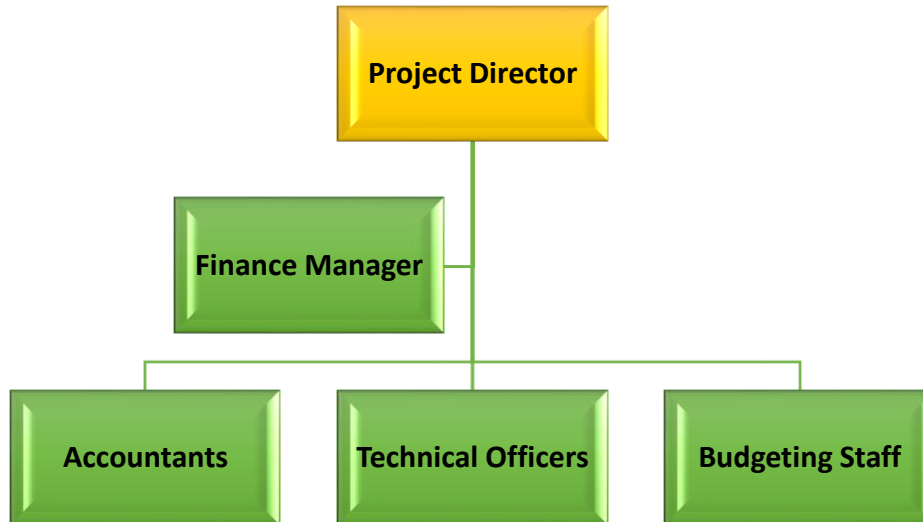


(Chart 2: The Financial operations environment of the PMO)

35. PPMO and the CPMOs will assign financial staff responsible for the financial management of the project. The financial team at each level will be composed of Financial manager and assistant.
36. The PPMO organization structure is composed of the director who has overall responsibility and a Finance Manager who has financial responsibility overseeing an

assistant. The technical officers in the PPMOs will have review and pre-approval functions, similarly in the counties PMOs.

37. Financial Manager is responsible for the project financial management. The manager will be assigned based on the track records of experience in managing projects of international cooperation in the years of implementation of the World Bank and / or other IFI projects. Budgeting staff are responsible for the allocation of project plan funds, procurement personnel, accountants are responsible for calculating and reviewing the fund inflow and disbursement Financial accountants are personnel of state organizations, all of whom have been selected and recruited through examinations.



(Chart 3: Organogram of the staff involved in financial operations)

38. In order to ensure that the financing proceeds are used for the intended purpose and as efficiently as possible, it is essential that the FM sets up and maintains adequate financial management arrangements in each stage of the project cycle: i) preparation and planning, ii) implementation as well as iii) completion and closing, as illustrated in the chart below.

Preparation and Planning	Implementation	Completion and Closing of the Financing
<ul style="list-style-type: none"> a) Setting up and proper staffing of the PIU b) Setting up accounting and systems and financial management procedures c) Annual work plan and budget d) Opening of a designated and project accounts e) Training of staff (IFAD procedures etc.) 	<ul style="list-style-type: none"> a) Record keeping and accounting b) Withdrawal applications c) Bank reconciliations d) Periodic reporting, comparison with actual expenses and forecasts e) Auditing arrangements f) Amendments and budget reconciliations g) IFAD supervision missions 	<ul style="list-style-type: none"> a) Expenditures (eligible) claimed by the borrower by closing date b) Final inventory (disposal/handover) c) Closure of bank accounts and refund balances e) Final audit and financial reporting f) Budget wrap up

(Chart 4: Financial management arrangements in the different stages of the project cycle)



Sample Job descriptions for the PD, Financial Manager, Assistant (Finance) are provided

in Appendix I.

1.4 Anticorruption policy

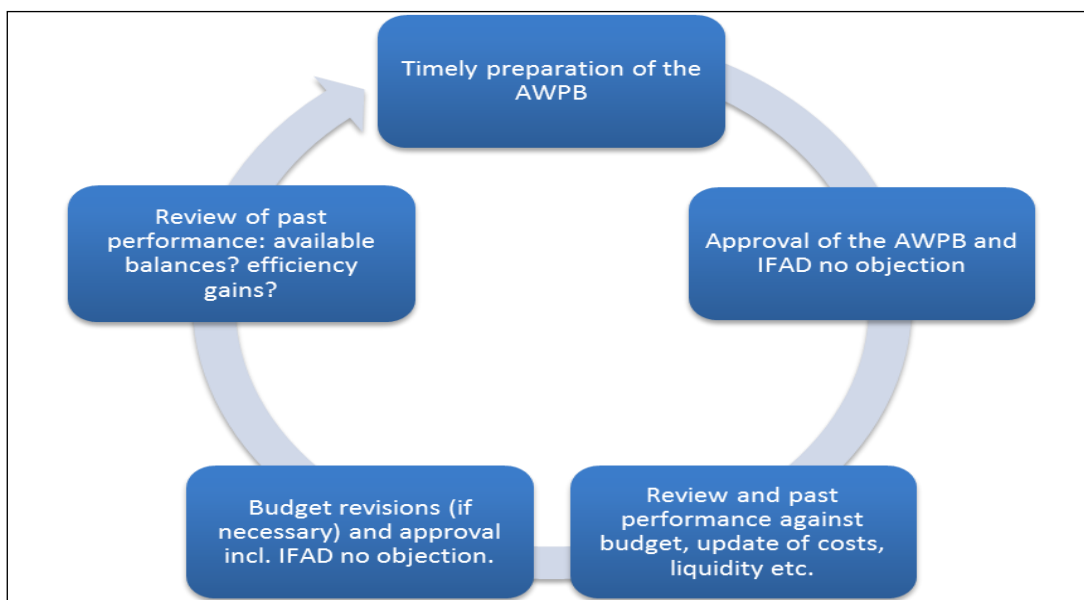
39. The management of the project funds shall be sufficiently rigorous to safeguard against Fraud and Corruption. Fraud and corruption include, but are not limited to:
 - corrupt practice - offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party
 - fraudulent practice - any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation
 - collusive practice - an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party
 - coercive practice - impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party
40. IFAD applies a zero-tolerance policy towards fraudulent, corrupt, collusive or coercive actions in projects financed through its loans and grants. 'Zero tolerance' means that IFAD will pursue all allegations falling under the scope of this policy and that appropriate sanctions will be applied where the allegations are substantiated. IFAD takes all possible actions to protect individuals who submit allegations of fraudulent or corrupt practices in its activities from reprisal. The IFAD anticorruption policy is available on IFAD website at www.ifad.org/governance/anticorruption/index.htm). The IFAD website also provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight (<http://www.ifad.org/governance/anticorruption/how.htm>).
41. It is the PD's and the Financial Manager's responsibility to make sure that all staff including the financial department are aware of IFADs and the lead project agency's anticorruption policy and whistle blowing procedures.

2.0 Budgeting and Planning

42. China has undertaken extensive reforms to its budgeting system over the past 10 years. These have encompassed the entire budgeting cycle: formulation, approval, implementation and audit. The early challenge was fundamentally to create the institutional infrastructure for a modern budget process where none had previously existed. Under its budgeting system, provincial, and local government. All activities of the government are predetermined and are set out in plans and programs. The annual estimates of expenditure detail the financial commitment of the government for the next year's program of activities.
43. The AWPB is expected to contain several key elements such as:
 - i) Introduction and brief background;
 - ii) Strategic focus and outputs;
 - iii) Major risks and mitigation actions;
 - iv) Budget and Financing plan;
 - v) Procurement plan;
 - vi) Training and technical assistance schedule and,
 - vii) PMO staff development plan
44. The LPA should make adequate annual budgetary provisions for IFAD funds and Counterpart funds in the National Budget, based on the AWPB of the Project. Counterpart funding will consist of allocations made by the project province and counties/districts. Government will ensure that counterpart funds are contained in the domestic fiscal allocations for the counties, and that they are released for the project on time. The counterpart funding maintain in the Treasury Accounts of the counties will be used to pre-finance the project expenditures as well.
45. Budget allocations will be made to enable the function of the provincial and county PMOs, to cover investment and recurrent expenses, office and training equipment, capacity building, M&E, knowledge management, and agribusiness facilitation services. Modest project support will also be reserved for function at township where existing government staff and facilities will be used. Recurrent costs for all PMOs will be ensured by government counterpart funding, which will cover staff salaries, travel costs, administrative costs, and operation and maintenance of vehicles etc.
46. The budget and financing plan can be described as a detailed statement of the expected resources available to the project and the planned use of those resources for the upcoming project year. The AWPB and especially the budget and financing plan is an important tool for managing the financial performance of the project and to ensure sufficient cash flow.

The budgeting and planning process comprises of the following parts:

- Preparation of annual, semi-annual, quarterly and even monthly financial plans including procurement, receipts, expenditures and cash flows.
- Review of past performance against budgets and the procurement plan, to promote an understanding of the project cost base;
- Identification of potential efficiency savings; and
- Review of the main expenditure headings in light of the project implementation plan, procurement plan, and expected variations in cost e.g. pay increases, inflation and other anticipated changes.



(Chart 5: The project budget cycle)

2.1 Development of the AWPB

47. During the last quarter of the previous year - before the beginning of each fiscal year for the project, The PPMO, after consultations with project stakeholders, shall prepare its annual budget, linking all the planned activities to the cost categories outlined in Schedule II of the Financing Agreement; this exercise will take place in advance of the preparation of the national budget, to ensure that the required Government funds will be allocated and available on time. All financing contributions should be clearly stated in the budget to be submitted to internal for approval and to IFAD for non -objection.
48. The budget and financing plan should be prepared and presented on a quarterly basis. The data on the number of activities to be implemented in the coming year and the estimates of the total funds needed to finance them should be presented by component and sub-component, by expenditure category as well as by financier. The estimates should be based on the project's (up to date) cost tables. In addition to the financial information described above, the budget should also take into account the physical outreach of the project (number of farmer's to be trained etc.).
49. When preparing the AWPB the following aspects should be taken into consideration:
 - Consistency with other financial reports: It is practical to prepare the budget and financing plan in the same format as the periodic (financial) progress reports and the project financial statements of the project.
 - Contingency provisions (physical and price) and allocation of funds from the unallocated expenditure category.
 - Post implementation activities e.g. arrangements for after life of project, disposal of project assets (computers, vehicles etc.), future repair and maintenance.
 - Availability for funds and arrangements for all audits.
50. After preparing the draft AWPB, the FM will send it to the PD and Steering Committee/LPA for review and clearance/approval before sending it to IFAD for no objection. In accordance with the FA, a draft AWPB has to be submitted to IFAD no later than 60 days before the beginning of the relevant fiscal year of the project. If required the /LPA could propose adjustments in the AWPB during the relevant project year, which would become effective after IFAD' approval.
51. The AWPB must be accompanied by a procurement plan prepared by the Procurement Officer. The first Procurement plan should cover the first 18 months of the project lifecycle while the subsequent procurement plans should cover 12 months of the project lifecycle.



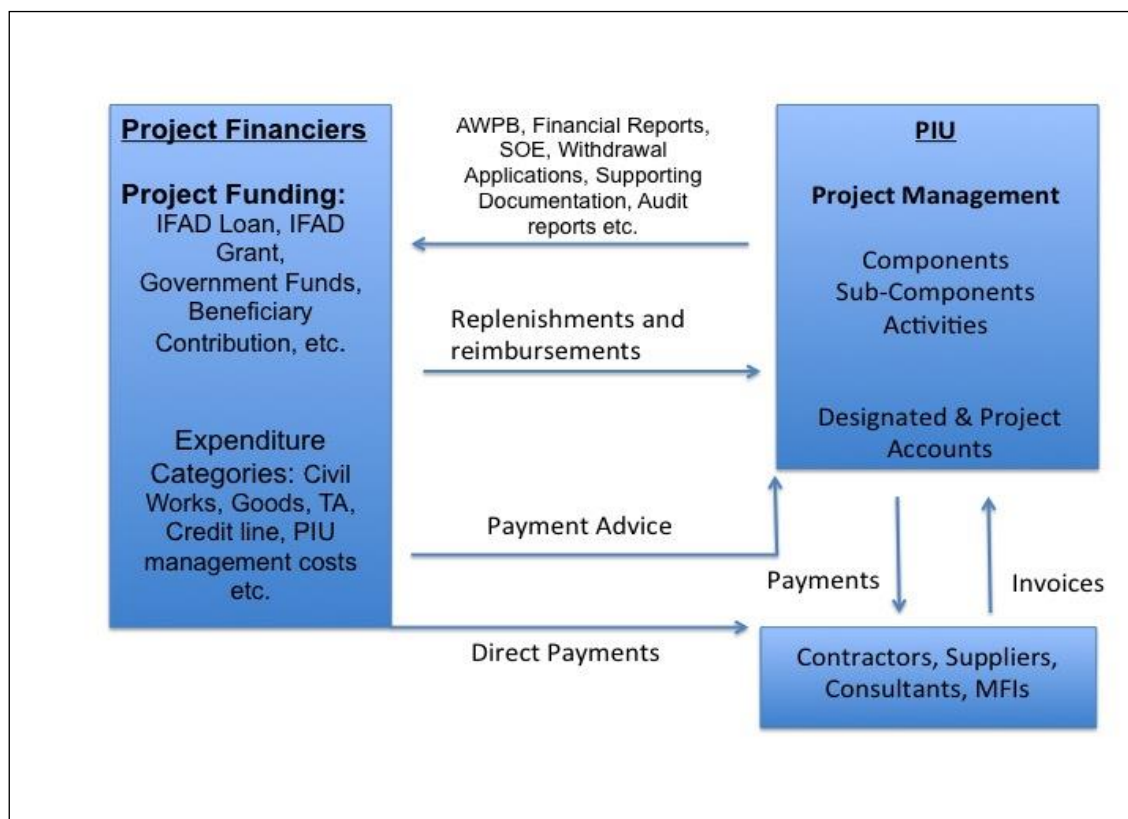
A sample of a budget and financing plan, procurement plan as well as a staff development plan is provided in Appendix II.

2.2 Review of the AWPB

52. Every quarter, the FM should review the costs incurred during this time period. In case of differences between the planned and actual costs presented in the Annual Budget, the FM and the Programme Managers heading each component should collectively identify the reasons for those differences and detail them in the periodic Financial Reports presented to IFAD. In case of internal problems identified during the costs review, the FM and Programme Managers should take the necessary steps to eliminate them. Otherwise, the budget for the next quarters should be readjusted to reflect the difference between actual and planned figures.

3.0 Accounting system

53. The majority of project activities result in the receipt, commitment or expenditure of funds. The accounting system records, processes and organises this data in order to produce useful financial information in form of AWPB, Financial Reports, Withdrawal Applications, Financial Statements etc. needed by the Project Financiers (IFAD, Government, Co-financiers, Beneficiaries) as well as the management. The accounting system should reflect the project's needs and be designed to provide the financial information required by all interested parties (DOF/BOFs, PPMOs, CPMOs and IFAD). It should also fulfil all the legal and regulatory requirements of the borrower. The accounting system is a critical part of the project's financial management system and its design.



(Chart 6: The operating environment of the project accounting system)

The FM is responsible for the following key areas related to the accounting system of the project:

- Designing the accounting system of the project
- Selection and maintenance of accounting software.
- Suggestions for amendments in the FM manual

3.1 Designing the project accounting system.

54. When designing the accounting system of the project the FM must undertake the following steps:

Step one: Identify the different kinds of reports the system is expected to generate, based on the different stakeholder requirements. - What information and in what format need to be produced by the PMU? As a minimum requirement the accounting system will need to produce the following reports:

- Statement of cash receipts and payments (by category and by financier),
- Statement of cash receipts and payments (by component),
- Statement of comparative budget and actual amount by component,
- Statement of Special Account movements,
- Statement of Special Account Reconciliations,
- Withdrawal Application Statement.

Step two: List the transactions and activities which the system must account for. As a minimum requirement the accounting system must include:

- a) Purchase orders, receipts, check books and other similar documents evidencing receipt, commitment or expenditure of funds.
- b) A journal for primary entry of all transactions, including adjustments, destined to be posted to the ledger.
- c) A petty cash book (PCB) for small cash expenditures below a certain low threshold. The credit side of the PCB should be analyzed into columns, one for each project component. The totals to be posted to ledger accounts monthly.
- d) A bank cash book (one for each source of financing). The credit side should also be analyzed into columns, one for each project component (like PCB). Total of these columns should be posted to their respective ledger accounts monthly.
- e) A ledger containing separate ledger accounts for each project component. The debit side of each ledger account should be analyzed into the expenditure categories defined in the IFAD Financing Agreement (Works, Equipment, Goods, PMU Management cost). The ledger accounts should be closed and trial balance prepared at the end of each month.
- f) Fixed asset register to record location, price and date of acquisition (or completion) of all buildings, vehicles, computers, printers, major equipment and furniture. There register should have a separate section for each type of fixed asset.

Step Three: Design the specific accounting books, including a chart of accounts and records to be maintained, the transactions to be recorded therein and the precise accounting entries on the occasion of each transaction.

Step Four: Incorporate the systemic accounting issues as agreed with IFAD and the government including the used accounting standards and valuation criteria. - In accordance with the project design document, all project accounts will be kept on a double entry system and the accounting standards used will be IPSAS Cash Basis Accounting.

Step Five: Resolve accounting issues (if any) arising from the fact that the project is being implemented and expenditures are being incurred in different locations (HQ vs. field office).

- The field office is to provide monthly reports to HQ by electronically by using the internet connection or by hand carrying a USB-stick.

Step Six: Determine a tentative list of users and user rights for each staff member in line with their terms of reference in order to maintain a proper level of security.

Step Seven: In the light of steps 1-5 decide, select and procure the accounting software that is able to satisfy the needs of the project. The FM needs to have an answer to steps from 1 to 5 before approaching a software company.

Step Eight: Incorporate all decisions of the previous seven steps in an accounting manual. This manual will need to be reviewed and updated once a year.

3.2 The Selection of an Accounting Software

55. The accounting software of the Project is an important tool for collecting, analysing, storing, and disseminating information that is vital for decision making. In addition, it enhances transparency and accountability of the project activities, provides timely reports, helps detect errors and shortfalls during project implementation and indicates necessary corrections.

When choosing an accounting software, the FM should ensure that the software is able to meet the following criteria:

- Reflect project needs and be designed to provide the minimum financial information required by all interested parties (PPMO/CPMOs, LPA, IFAD) including the provision of accurate, timely, complete, reliable and consistent information and reports as well as fulfil the legal and regulatory requirements of MOF/PFD;
- The accounting software should be configured as a modular solution and the different modules should be suitably integrated. The software should contain the following modules: i) general ledger module, ii) accounting module incl. petty cash, iii) budget module, iv) fixed asset module, v) contract management and procurement management module. - The integration of budgeting module accounting module/system is important to enable comparison of the actual performance with budgets/targets (quarterly, annual, and cumulative for the Project).
- Ability to account under different bases of accounting (cash, modified accural, accural)
- Use the double-entry system of transactions;
- Have multi-currency and multi-lingual capabilities and reporting;
- Allow for multi-period and multi-user processing and reports;
- Able to output financial reports in a variety of formats including hard copy printouts, as an excel spread sheet and as an HTML file;
- Provide adequate documentation and complete audit trail to facilitate audit.
- Have security settings and different access levels for different users
- Be user friendly. Technical support, training and installation & configuration should be offered by the supplier and be easily accessible during project implementation.
- For procurement needs, the accounting software should capture and report on the following: Prior review thresholds; Procurement methods thresholds; Procurement reference; Activity description; Component (as per the description schedule of the Loan); Category (as per disbursement schedule); Estimated amount; Procurement method used; Prior/Post review; Date of issuance of advertisement; Bank no objection on bidding documents (Goods/works) or RFP (consultants); Date of bid (Goods/works) or RFP (consultants) submission; Bid opening date (goods/works) or Financial Proposal opening date(consultants); Bank No objection to evaluation report; Bank no objection to contract draft; Date of submission to the Fund of the Copy of signed contract; Contract related data (date of signature, date of completion, contract amount, contract amendments and payments terms).

56. In the installation phase of the accounting system, FM will need to determine the following:
- access level and different user rights e.g. (i) active use for inputting/editing of data for different modules; (ii) read-only use; or (iii) no-access.
 - Information storage and back-up.
 - Design of the chart of accounts and the detailed list ledger accounts required to account for transactions under the project.
 - Design the detailed formats of various accounting books, records, and statements (e.g., cash and bank books, journals, various ledgers, trial balance, voucher formats, etc.).



A sample of TORs for an accounting software is provided in Appendix IV.

3.3 Accounting procedures

57. The Accounting procedures are an integral part of the financial management manual of the project. They are to be prepared by the FM. The procedures are to be reviewed once a year and updated as needed.
58. The accounting procedures should as a minimum address the following subtopics:

Used accounting standards:

- International Public Sector Accounting Standards (IPAS) – cash basis

Chart of Accounts

The Chart of Accounts is used to: (i) capture the financial data under the appropriate headings and (ii) classify and group financial data for the various financial reports. The structure of the Chart of Accounts caters data to be captured by: (i) the Project components, sub-components, activities (ii) expenditure items under each component and sub-component, (iii) The IFAD expenditures categories for the Project, and (iv) sources of funding. Expenditure categories may also be recorded by using “cost center” functionality which is commonly available in accounting software.

The structure of the Chart of Accounts should conform closely to the project cost tables (as presented in the project design report) to enable comparison of actual project costs during implementation with those estimated during the project preparation.

Budgeting and budgetary control

The project budget will be recorded in the budget module of the accounting software. Budgeting is discussed in more detail in section 2 of this manual.

Recording and processing of transactions

59. Whenever a transaction takes place under the Project, it should be recorded and processed using the accounting software that meets the project’s specific accounting requirements. Processing of payments is discussed in detail in section 8 of this manual.

The recording of transactions under the Project follows the Cash basis of accounting with allows for the recognition of cash inflows in the period they are received and the reporting of expenses in the period those expenditures are paid.

Individual records of transactions are treated as source documents. For the project accounting purposes, the following source documents are considered:

- Purchase orders/ Contracts

- Purchase invoices
 - Service invoices
 - Consultants/engineers' reports
60. All transactions occurred should be registered in the accounting software in accordance with the date of occurrence and under the form of journals. The journal should contain sufficient and detailed information about the date of the transaction, its type, amount and reference to the source document. All the transactions should be entered on the accounting software using the principle of double entry, which means that each transaction should be recorded twice, once on the debit side of the transaction and once on the credit side of the transaction. The accounting software will automatically process those transactions and post them to the ledger accounts, which are accounts where all transactions of similar type are recorded. This processing of transactions also allows for the production of timely reports.
61. The FM Assistant should reconcile the project accounts on a monthly basis. In case certain adjustments of entries in the accounting process have to be made, the FM Assistant should produce a memorandum in which the reasons and the way in which the adjustment has been made is explained. The memorandum will be authorized by the PD after being cleared by the FM.

Petty cash management (not applicable if the project will not use petty cash)

The FM Assistant will manage and periodically reconcile the petty cash account. The petty cash account is discussed in more detail in section 6.2 of this manual.

Bank account reconciliations

The FM will need to perform monthly bank account reconciliations between the different accounts. The reconciliation is discussed in more detail in section 6.3 of this manual.

Withdrawal of funds

The FM will be responsible for preparing withdrawal applications to be submitted to IFAD. The necessary procedures are explained in section 7 of this manual and in the IFAD FMFCH.

Financial reporting:

The FM is in charge for summing up the expenditures made under each component and sub-component and for each activity under those and posting the data on accounting/financial reports on a periodic basis during the reporting periods specified in the Letter to the Borrower and in the Financing Agreement. The FM will also need to keep track and report on the availability of project funds in the different accounts (Designated accounts, project accounts and petty cash) as well as the commitments made by the PMU. The produced reports will be cleared and approved by the PD. The different financial reports are discussed in more detail in section 9 of this manual.

Fixed asset register

FM needs to maintain a fixed asset register recording all fixed assets in the fixed asset module of the accounting software. Fixed asset management is discussed in more detail in section 8 of this manual.

Period for which records are to be kept

The DFM needs to file the original records in an organised way to be maintained by the PMU/LPA for a minimum 10 years after the project is completed. Record management is discussed in more detail in section 4 of this manual.

Access Levels

The access to the accounting system should be governed by the privileged metrics defining the levels of access by different users: (i) active use for inputting/editing of data; (ii) read-only use; or (iii) no-access. This would allow a separated and controlled access to the accounting module (i.e. Journal recording, posting to the General Ledger). Each accounting transaction records the user's ID, preventing unauthorized access to the system and an adequate level of protection against the input of false data or the destruction of the records.

At the same time, the data-sharing nature of the system involves strict coordination and active data exchange among its various users (primarily the PMU). In this respect the system should ensure reliability in information storage and fast data processing.

4.0 Records Management

62. Financial records must be created and preserved for every financial transaction performed under the project. Financial records are defined as any financial information including written, computer data, internal forms, e-mails, or any other form of storage information originated from the PMU such as internal forms, journal vouchers financial reports (Monthly & quarterly) copies of checks and withdrawal applications etc. or received by the PMU such as supplier invoices and receipts, bank statements, IFAD documents etc. within the framework of the project's official activities. The objective of this procedure is to preserve the financial records and files for further official use by the LPA, for financial audit and for review by the Fund during the supervision missions. The project's financial records are the property of the LPA/MoF and cannot be removed or destroyed.
- It is important to note that in accordance with the IFAD general conditions, the recipient/borrower has to maintain the original records for a minimum of 10 years after the project completion.

4.1 Filing of the financial records

63. The FM is responsible for filing the financial records created or received by the project. To fulfil this responsibility, the FM must maintain chronological files in which the financial documents have to be filed for future reference. Filing should be performed daily to prevent the accumulation of papers and to ensure that the financial records are maintained in an up-to-date manner at all times. Each financial record should be filed under its code in a chronological order, with a sequential number assigned to every document. Any kind of additions or amendments to the financial document should be filed in a chronological order immediately following the principal document.

4.2 Storage of financial records

64. The financial records of the project should be stored in the PMU office, at the LPA for a minimum 10 years after the project completion. The data should be stored within the accounting software, as paper copies, as scanned copies and as computer disc copies. The Financial manager should allocate an appropriate storage area for the financial records in paper format and maintain them in locked cabinets, safe from water and fire to which access is controlled and limited. The Financial manager should also classify the financial records as "Confidential", or "General". All-important correspondence should be filed.

4.3 Archiving of financial records

65. In order to prevent an unnecessary pile-up of files in a limited office space, FM should make sure that the financial records are archived on a regularly basis. Once a year, the FM should make sure that the completed or inactive files are archived in a manner that will allow for easy retrieval of the files in case they are required at some future date.

4.4 Back-up procedures

66. To avoid the loss or damage of financial data, the information should be kept in two copies: i) at the computer server of the PMU/LPA and ii) in the locked cabinets of the PMU office. Only the PD and the FM are allowed to access the financial records without authorization. The access of external persons is prohibited except for the auditors & IFAD staff.

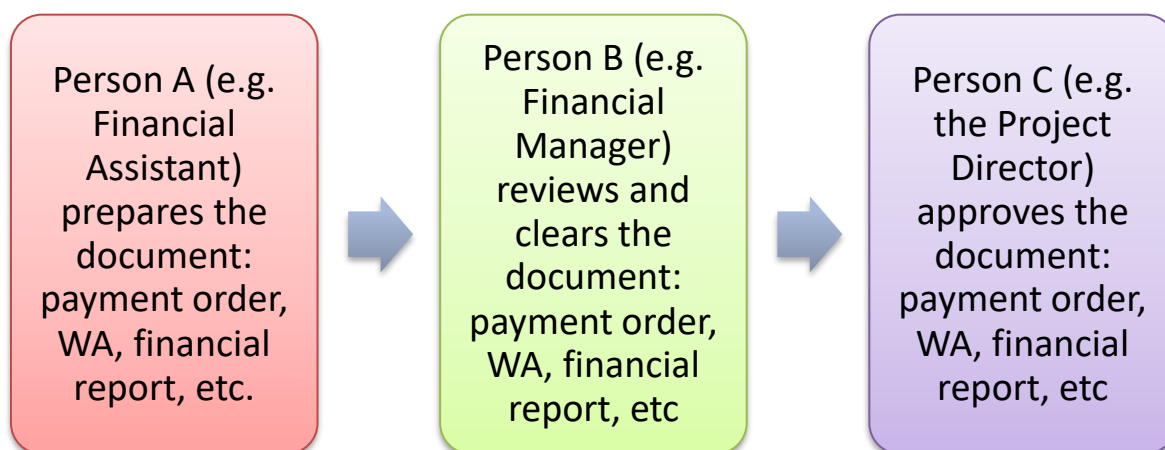
5.0 Internal controls

67. Designing, installing, and maintaining a system of internal financial control is an integral part of the Financial management function. Internal financial controls aim to ensure) efficiency, ii) reliability, of financial reports and iii) compliance with applicable laws and regulations including the conditions set forth in the financing agreement. The key features of the internal control system are summarized below:

- Segregation of duties;
- Authorization;
- Reconciliations and checks;
- Restricted access; and
- Monitoring and review.

5.1 Segregation of duties

68. An important element in any control system is the separation of those duties which would, if combined, enable one individual to record and process a complete transaction. It is the FM's responsibility to ensure that the following duties are segregated under the project: preparation, authorization, execution, custody, recording and the and operation of systems.



(Chart 7: Example of Segregation of duties)

5.2. Authorization

69. Authorization controls require the certification that a transaction or event is acceptable for further processing. Several types of authorization are in effect at the project, mainly in the procurement cycle, payment cycle, bank and cash management cycle including reconciliation. The FM should ensure that the authorizations of PMU staff ensure efficient implementation while keeping the risk as low as possible. The authorization of project staff should be in line with their respective job descriptions.

5.3 Reconciliations and Checks

70. Reconciliations between independent, corresponding sources of data are a key control for identifying errors and discrepancies in balances. The FM should perform the following reconciliations each month:

- Bank reconciliation
- Reconciliation between system and special account receipts and payments statement
- Any reconciling or balancing amounts should be promptly cleared. Unusual or long outstanding reconciling items must be brought to the attention of the financial officer. The financial officer will review and sign all reconciliations as evidence of his review.

In addition, physical checks should be performed on assets held and on petty cash.

5.4 Restricted Access

71. All data, records and assets should be kept in a physically secure environment. This should cover safe keeping of finance records such as official order forms and bank details. In addition, any petty cash should be kept securely. Financial data and other records should also be protected in the form of back up procedures. All work should be regularly backed up and copy records stored securely off site.

5.5 Monitoring and Review

72. As detailed in financial reporting section 9, periodic financial reports must be prepared and submitted to the fund. For the purposes of internal control the same information should be prepared and monitored by the PD on a monthly/quarterly basis. The reports should be prepared on a timely basis and should normally be available for distribution two weeks after the end of the reporting period to which they relate. The periodic reports should be reviewed by the FM and the PD as a minimum. Where necessary, corrective action should be taken to ensure the authorized budget and procurement plan is not exceeded.

6.0 Flow of funds, cash and bank account management

73. The IFAD Loan will be disbursed over project duration of 6 (six) years. The Loan Closing Date is the 6th anniversary of the date when the project was declared effective. IFAD disbursement procedures and the accompanied forms are outlined in detail in the FMFCL and the FMFC handbook which should be read in parallel with this manual. Please refer to section 7 of this manual for more detailed information on the IFAD Disbursement procedures.

6.1 Flow of Funds, opening of special accounts and project accounts

74. In accordance with the section 4.04(d) of the General Conditions, immediately after entry into force of the Financing Agreement, there shall be a Designated Account (DA) for the IFAD Loan denominated in the currency of the loan (USD/EURO) to be opened, through which IFAD funding shall be channeled. The DA is to be set up at and managed by DOF. DOF will be directly responsible for the management, maintenance and reconciliation of the DA activities. Supporting documents required for IFAD disbursements will be prepared and submitted by CPMOs through PPMO for review and verification before sending to DOF for further disbursement processing.
75. The PPMO and county CPMOs are responsible for reviewing the Disbursement Request as well as the supporting documentation required for IFAD disbursements. Disbursement Requests will be prepared and submitted by CPMOs to PPMOs for review and verification before sending the Disbursement Request to DOF for further disbursement processing. Once approved, project resources will be channeled directly from provincial level to county level.

In accordance with FMFC Handbook, the Designated Account will be administered following Revolving Fund arrangements. Advances from this Financing must be segregated from other funds for the Project.

- 76. Additional general conditions precedent to withdrawal:** The following are designated as additional general conditions precedent to withdrawal.
- (a) The Provincial Project Management Office (PPMO) and at least 3 County PMOs, the respective key Project staff shall have been selected;
 - (b) The Borrower, through the Lead Project Agency, shall have submitted, and the Fund shall have received, an official document confirming the availability of adequate counterpart funds for the first Project Year;
 - (c) The Designated Account shall have been duly opened: Documentation evidencing the opening of the Designated Account, with details of the names and titles of the persons authorized to operate the DA, must reach IFAD before withdrawal from the loan account can begin;
 - (d) The designated representative a letter designating the names of officials authorized to sign withdrawal applications which includes their authenticated specimen signature(s). The project is eligible and authorised to use the IFAD Client Portal (ICP), the applicable form is included in FMFCL.
 - (e) A draft PIM shall have been prepared and is acceptable to the Fund and;
 - (f) A computerized accounting system acceptable to the Fund shall have been identified and selected by the Provincial PMO.
77. Upon fulfilment of conditions precedent to withdrawal and the Borrower's request, the Fund will make one (or more) withdrawal(s) of up to the ceiling USD'/EURO 8,0 million for the loan, and deposit such amount(s) into the Designated Account; DOF shall submit withdrawal applications to replenish the Designated Account from time to time, based on expenditures, provided that the amount claimed is not less than 20% of the initial deposit. All withdrawals must be in line with projected expenditures as detailed in the approved AWPBs.

The following are the SOE thresholds that apply for withdrawal application under procedure

(i) "Advance Withdrawal" and under procedure (iii) "Reimbursement": USD 300,000 for all expenditure categories.

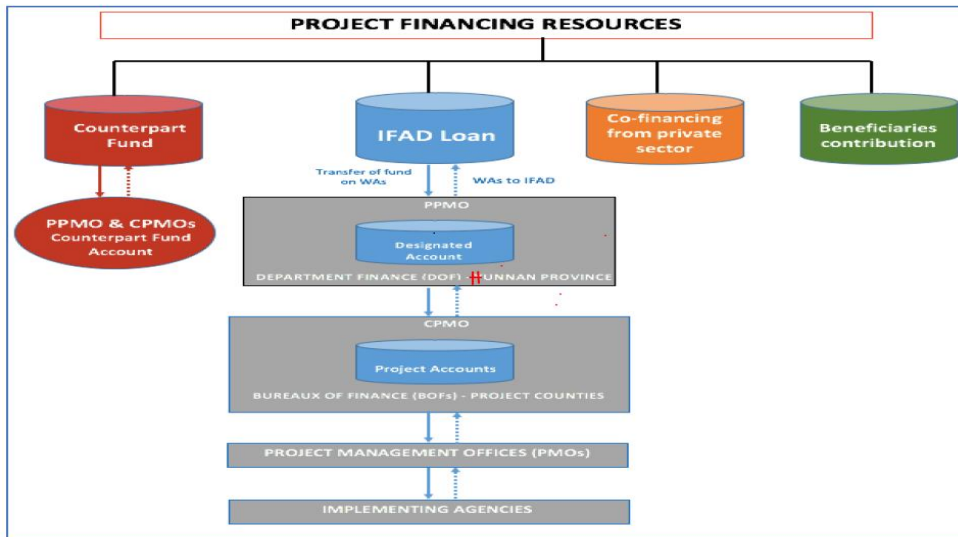
78. PMOs and IAs shall maintain Implementation ledger Accounts in local currency in the Treasury System or commercial banks to receive the proceeds of the IFAD financing and/or the counterpart funding respectively. The County PMOs and BOFs will ensure that funds received at each level are transferred without delay. Separate bookkeeping is maintained by each of the IAs where Project activities will be implemented.

79. FM procedures for the annual audit, verification on missions are still as part of the annual process. Project needs to ensure that verification on the funds used for the intended purpose, for efficiency, social equity, basically value-added principles.

In accordance with FMFC Handbook, the Designated Account will be administered following Revolving Fund arrangements. Advances from this Financing must be segregated from other funds for the Project.

80. Retroactive financing: As an exception to the General Conditions for Agricultural Development Financing, IFAD will be seeking IFAD Executive Board approval that for retroactive financing from the loan up to a maximum of 10% of the total IFAD financing (i.e \$US 8,0 million) for eligible expenditures incurred as from the date which the design document got approval by Quality assurance group or equivalent IFAD management level to the date of the entry in force of the financing agreement. Eligible expenditures for retroactive financing are considered those incurred to finance the start-up and preparation project activities such as: (i) purchase of essential items (including equipment and procurement of MIS system) for the PMOs; (ii) recruitment of project staff; (iii) costs related to tendering, selection, and recruitment of service providers; (iv) costs related to the finalization of the program implementation manual, customization of accounting software to fit IFAD requirements and license fees, start-up trainings and workshops; (v) establishment of the M&E system, including carrying-out of the baseline survey and development of MIS; (vi) exposure visits for knowledge and experiences sharing; (vii) surveys and feasibility studies; (viii) training and technical assistance for cooperatives, including recruitment of service providers. Retroactive financing will be provided with use of reimbursement approach in disbursement. CPMO/PPMO should indicate in their IFRs under reimbursement line what amount they claim as for reimbursement and WA should be also used for reimbursement rather than for advance. Any reimbursement payments should be done only based on the supporting documents provided by CDIC to Country BOFs and PPMO and verified by country BOFs / PPMO.

81. Financing of taxes: In order to improve the efficiency of funds flow and better support project implementation, IFAD's funds may be used to finance taxes that are not "excessive, discriminatory or otherwise unreasonable". In case the Government intends to use IFAD financing to finance taxes that is impossible or impractical to exempt, the Government would need to formalize such request in writing. The amount of IFAD's financing to be used to finance taxes will be further confirmed upon finalisation of project costs and taxes.



(Chart 8: Flow of funds of the project)

6.2 Bank reconciliation

82. The FM must perform monthly reconciliations between the designated account(s) balance recorded on bank statements and local cash book balance, recorded on the system. Performance of the monthly reconciliation should follow the following steps:
- i) Designate Account balance recorded on bank statement on reconciliation date is taken as starting figure;
 - ii) Add reimbursements/replenishments/other deposits that have been processed and are due to designated account, but not yet recorded on bank statements;
 - iii) Subtract undelivered cheques. Any long-outstanding cheques should be identified and investigated
 - iv) Following these adjustments, the bank statement and local finance system cash totals should agree. Any remaining difference should be reported and investigated;
 - v) The completed bank reconciliation statement should be signed by the FM; and
 - vi) The reconciliation should be reviewed and countersigned by an independent finance team member who understands the reconciliation process.

Periodic designated account reconciliations will be submitted to IFAD as part of the periodic progress report as outlined in section 9.



Please refer to Appendix XII for a standard Designated Account Reconciliation Statement.

7.0 IFAD Disbursement Procedures

83. The IFAD disbursement procedures are governed by the FMFCL and the FMFC Handbook, which will be sent the PMU/LPA upon the project effectiveness. The handbook is also available on the IFAD site.

As stated in the FMFCL and the FMFCH, a few standard disbursement procedures may be used for withdrawal of financing:

Procedure I

84. **Advance withdrawal** (using revolving funds with replenishment to a bank account(s) designated to receive financing resources in advance). This modality is used to advance and/or replenish funds to a bank account as designated by the borrower. The Fund may place a limit on the amount to be advanced and/or replenished. Relevant details on the modality – which is project specific – are agreed between the borrower and the Fund and detailed in the FMFCL.

Procedure II

85. **Reimbursement.** This is applicable when eligible project expenditures, reimbursable under the financing, have been pre-financed by the borrower. Such reimbursements are expected to be claimed no later than 90 calendar days from the date of payment by the borrower.

7.1 Evidence of Authority to Sign Withdrawal Applications

86. The Fund requires the borrower's (or recipient's) representative, as designated in the financing agreement, to furnish satisfactory evidence of the authority and authenticated specimen signatures of the individuals who will sign WAs on behalf of the borrower. This evidence must reach the Fund before the first WA is presented by the borrower and should be the original (photocopies, facsimiles or other means of transmission are not acceptable). Each WA should be signed by such duly authorized individuals, and the Fund must be notified of any change in the signatories authorized to withdraw funds from the loan/grant account.

The Fund must also be notified of the designated signatories for operating any designated and/or programme or other accounts, including changes thereto, whether or not these authorized signatories are included in the financing agreement. Such changes, as effected during the life of the project, must be communicated promptly to the Fund. The borrower, guided by the sample WA, should provide the names and specimen signatures of the newly appointed signatories and include the date when such change is to take effect. The original of such changed documentary evidence is to be provided to the Fund.

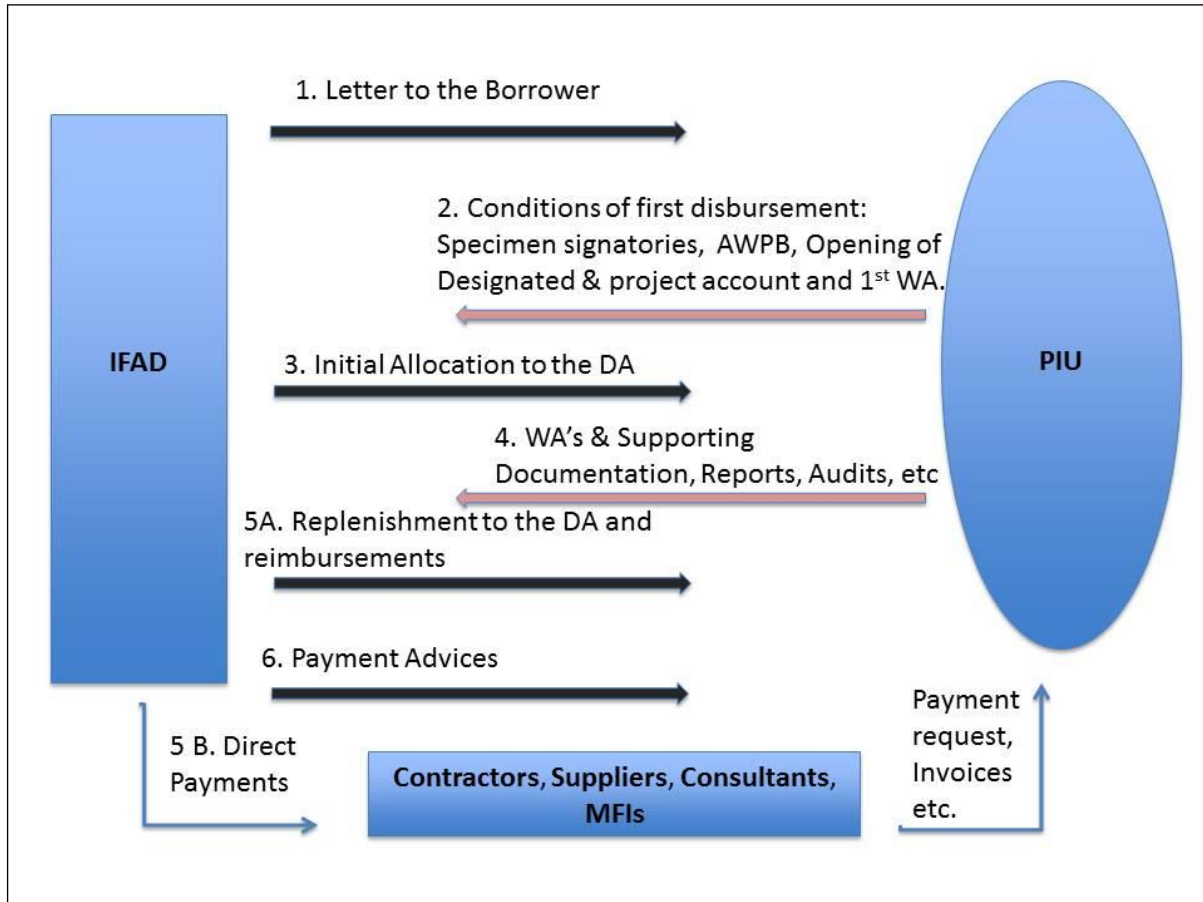
7.2 The Designated Account

87. The flow of funds for the Project starts with the opening of the project Designated Account (DA), denominated in the currency of the loan (USD/EURO) through which IFAD funding shall be channeled. The DA is to be set up at and managed by DOF. The FM is responsible for opening and managing the Designated Account including receiving on a monthly basis the DA Statement of Account from the bank and reconciling it against PPMO records. Disbursements from the DA should be recorded in the PPMO account records as of the date they are made, that is when the checks are issued.

7.3 Withdrawal of Financing Proceeds and Supporting Documentation

88. Based on the FMFCL and the FMFCH, the withdrawal of all Project financing proceeds (direct payments to contractors from IFAD, and to reimbursements and replenishments to the designated account) is done through the use of Withdrawal Applications (WA) - form 100.
89. It is the FMs and the Financial Assistant's responsibility to make sure that the WAs are correctly prepared, the documentation is complete and submitted to IFAD in a timely manner. The necessary forms and supporting documentation are to be attached to the WA (form 100).

90. Upon Project entry into force and after sending to IFAD, the letter designating the two officials authorized to sign Withdrawal Applications (WA) with their names and specimen signatures, the FM will prepare the first Withdrawal application together with the necessary supporting documentation requesting the IFAD to transfer an initial advance to the designated account up to a ceiling of USD xxxxxxxxxxxxxx. Disbursement from the DA may then start for eligible expenditures under the Project.



(Chart 10: Withdrawal of IFAD Funds)

91. For the subsequent WAs, prepared by the Financial assistant, the Financial manager must ensure that the right supporting documentation is attached to the WAs before providing clearance. When submitted supporting documentation to IFAD should be copies the while the original documentation is to be retained by the PMU/LPA and securely located to enable inspection by IFAD representatives and auditors for a period of at least 10 years after the project completion date in accordance with the IFAD General conditions.
92. As specified in the IFAD FMFC handbook, for all payments (Works, goods, consultants' and other services) the following supporting documentation is required:
- The signed contract or confirmed purchase order (Showing the specified amount that is due paid. If this has been sent earlier to the fund a reference to the accompanying letter or document should be given in a footnote to the relevant Application summary Sheet – form 100)
 - The bank guarantee for advance payment, as specified in the contract documents
 - The bank guarantee for performance, as specified in the contract documents
 - Copies of communications sent by the IFAD country programme manager to the lead project agency (LPA) providing the IFAD's no objection (post or Prior) to the contract award, and

- e) Evidence of payment.

For payments of goods, in addition to a-e:

- f) Supplier's invoice duly certified for payment by the PD – specifying the goods, their quantities and prices
- g) Bills of lading or similar documents; and
- h) As appropriate, the certificate of delivery (to include condition of goods to delivery)

For Payments of Consultants' and other services, in addition to a-e:

- i) The supplier's or consultant's claim, duly certified for payment by the PD and showing sufficient detail. If such Services relate to the importation of goods (for example, freight and insurance payments), adequate reference should be given to enable IFAD to relate each of these items to specific goods whose cost has been or is to be financed by the financing closing date; and
- j) As appropriate, a certificate of delivery of satisfactory services

For progress and retention payments of civil works in addition a-e:

- k) the claim if the contractor, including a financial progress report, stating the work performed and the amount due;
- l) A certificate signed by the project consultants or owner's representative, if any, or by the borrower's chief engineering officer or resident supervising engineer assigned to the project, to the effect that the work performed is satisfactory and the payment claimed is due in accordance with the terms of the contract, and
- m) A copy of the contract payment monitoring form signed in original by the certifying officer.

93. Together with each WA received for replenishment to the designated account, the project must submit the designated account reconciliation Statement, prepared by the project finance staff for the same reporting period in which the eligible expenditures are being claimed. This form needs to be accompanied by bank statements of the designated account and that of any other operating, district, project accounts ensuring that the closing bank balances for all these accounts correspond to the balances at the end of the same reporting period as indicated in the WA period.

In order to minimize transaction costs, the FM must make sure that withdrawals from the loan and/or grant account shall be made in amounts of no less than US\$ xxxxxxxx or its equivalent, or such other amount as IFAD may designate in an advice to the borrower from time to time.

7.4 Use of Statements of Expenditures (SOE) and SEO Thresholds

94. The statement of expenditure (SOE) procedure is normally used for those expenditure types where it is impracticable or unduly burdensome to require submission of full documentation. However, the supporting documentations for the Statements of Expenditures must be maintained by the PMO/LPA and made available for review by IFAD supervision missions upon request and to external auditors during their annual review of project accounts to enable issuing of an independent audit opinion.

Details regarding the use of the Statement of Expenditure (SOE) are provided in the FMFC handbook. In accordance with the FMFCL the SOE threshold applies for all project expenditures up to a threshold of USD 300 000.

The SOE thresholds above may be amended by the Fund during the course of project implementation.

8.0 Processing of payments

95. The Project will mainly finance, small works (rural roads, irrigation infrastructure etc.), consultants' services (design, supervision and studies), goods (office supplies, computers, cars), investments in the form of grants and credit as well as PMU operating costs (salaries, travel expenditures etc.). Last section outlined how the PMU will receive funds from IFAD to cover the incurred expenditures related. This section will outline the different steps involved in the outflow of funds from the PMU to the Contractors, Suppliers, and Consultants etc. The procurement process of these items, including the hiring process for consultants is detailed in the project procurement manual.

8.1 General instructions

96. For all payments, the FM should ensure that the following steps are performed:
- i) Preparation of Payment request voucher. A payment request voucher should be prepared for each payment.
 - ii) Validation of invoice. The following validation checks should be performed by the FM on invoice:
 - Invoice arithmetically correct; and
 - Quantity and price recorded on invoice should be checked back to contract, order, certification of completion/delivery

If there is any discrepancy identified, it should be raised with the vendor prior to proceeding with invoice processing,

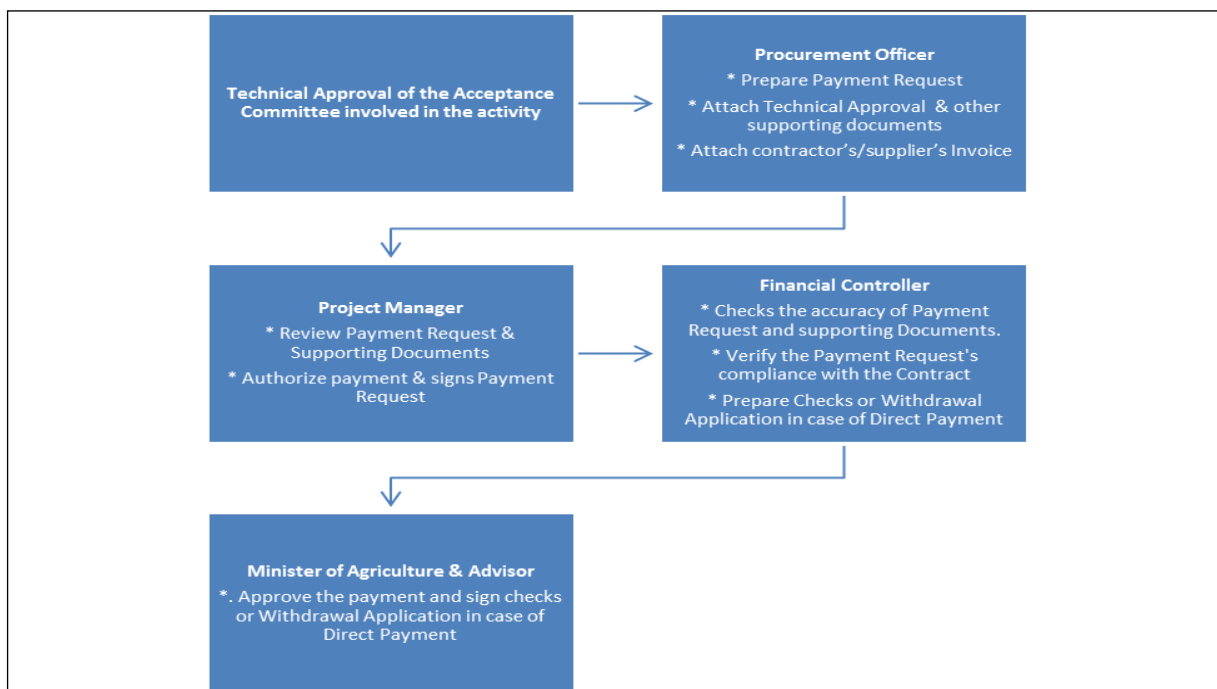
- iii) Supporting documentation: the following documents should be attached to the payment voucher to support validation:
 - Copy of invoice;
 - Copy of letter of approval from technical committee or the specialist, minister;
 - Copy of purchase order, goods received note and contract if applicable; and
 - Copy of required guarantees

All vouchers are authorized by the Minister after signatures of the FM, PD the and Director General of the LPA.

8.2 Processing of payments for Civil Works and Goods

97. Project will incur expenditures related to works in the form of irrigation infrastructure etc. and goods in the form of fixed assets.

The Expenditure Cycle for works and goods is detailed in the following chart:



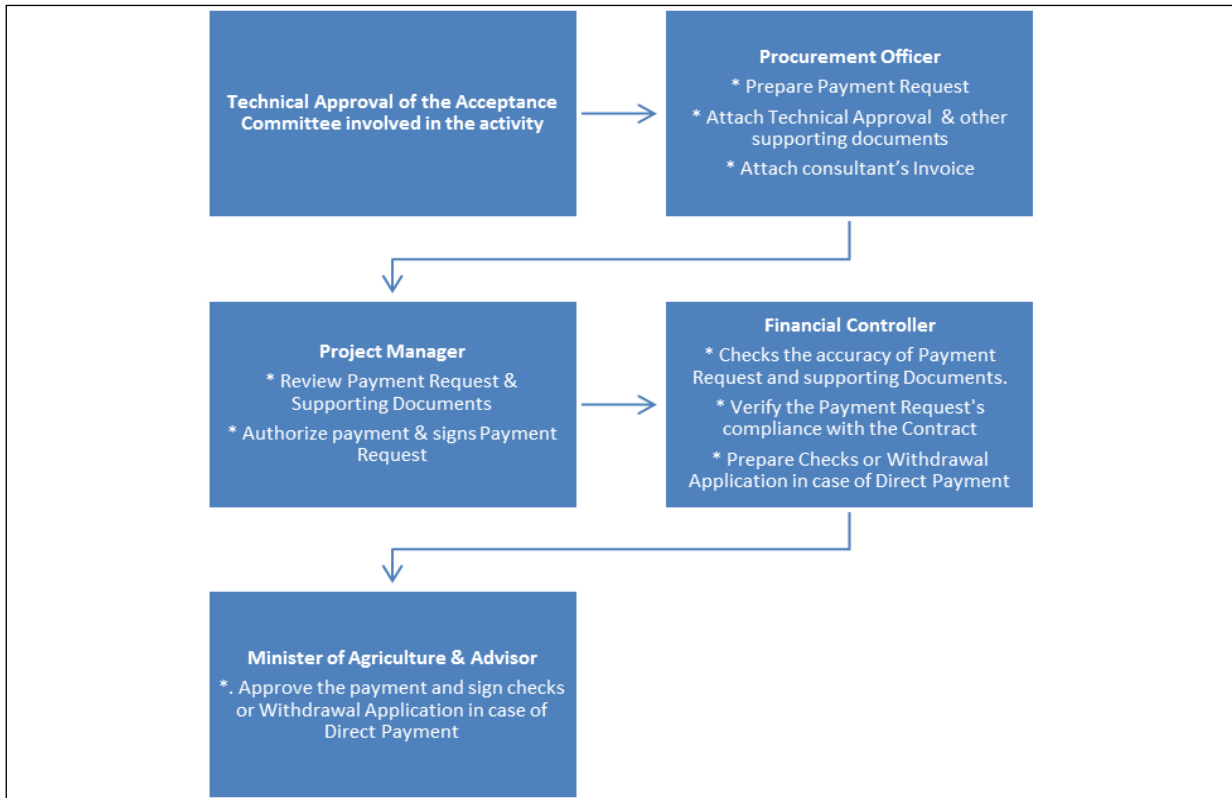
(Chart 12: Processing of payments for Works and Goods)

98. Before releasing the payment to the contractor or supplier, the FM will make sure the following processes are followed:
- A. The quantity of goods is checked back to the purchase order and to contract and bid award letter (if applicable). The committee members, assigned by steering committee/LPA after being assured that quality of goods is compliant with the contract conditions deliver an accepted delivery sheet or a compliant report to the Procurement Officer. The FM will ensure that the Procurement Officer provides all the necessary documents including the invoice and the acceptance/compliant report before proceeding with the payment.
 - B. The condition of the goods is reviewed for any damage or impairments. Damaged goods are to be identified and returned to the supplier/replaced. If any goods are rejected or returned to the supplier because they are not as ordered or are of sub-standard quality, the FM should be notified. FM must keep a central record of all goods returned to suppliers and maintain a separate record of all goods and equipment delivered by suppliers by contracts funded by the IFAD financing.
 - C. All the works, are to be monitored by an architect or engineer. It is good practise to assign the architect/engineer responsible for the design to monitor and assess the works of the contractor. The architect or engineer is responsible for sending compliant reports/certificate of completion to the Procurement Officer in the PMU which includes the percentage of completion of the construction and if the construction materials are compliant with the contract conditions and specifications. A request for payment is prepared by the Procurement Officer to be send to the FM. The FM will ensure that the payment request includes all the necessary documents including the invoice and the compliant reports/certificate of completion before proceeding with the payment to the contractor for the completed phase.

8.3 Processing of payments for Consultants' Services

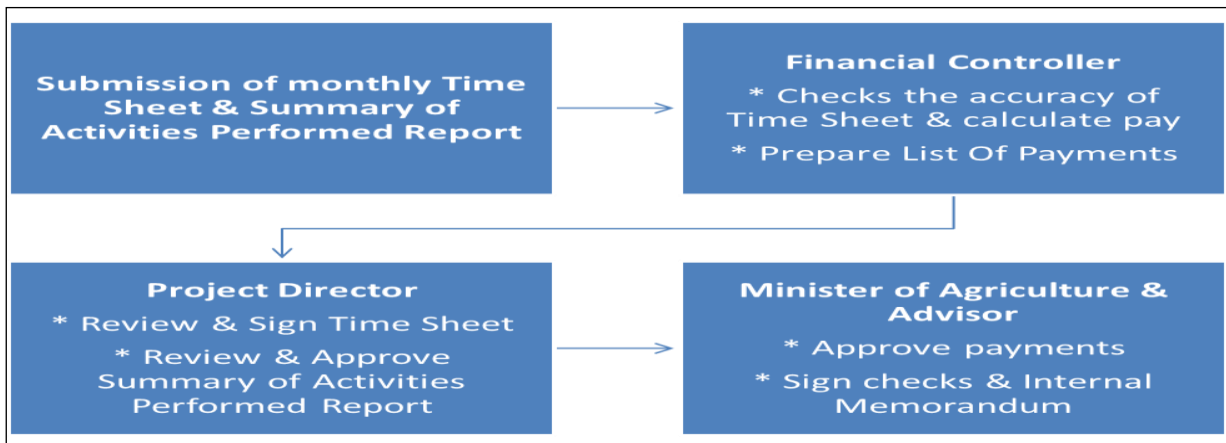
99. Under the Project there are two types of consultants' services; a) Consultants with a lump sum contract, and b) Consultants with a time based contract. For type (a) consultants, payments will be made against the delivery of outputs as detailed in their contracts. For type (b) consultants, payments will be made against the submission of a time sheet and a summary of activities performed. PMU members will be paid against

the submission of a monthly time sheet. The Expenditure Cycle for type (a) consultants is detailed in the following chart:



(Chart 13: Processing of Payments for consultants - type A)

The Expenditure Cycle for type (b) consultants is detailed in the following chart:



(Chart 14: Processing of Payments for consultants - type B)

100. Before releasing the payment to the consultant (firms), the FM will undertake the following steps:
- A) The consulting services reports are monitored by technical committees, assigned by the steering committee/LPA for the purpose of evaluating the deliverables submitted by the consultant (firms). Therefore, the FM will ensure that no payment to the consultant is prepared unless an approved committee report or letter of approval received from the committee assures that the deliverable submitted by the consultant is compliant with the contract conditions, these documents should be passed first through the Procurement Officer.
 - B) The consulting services reports are monitored by the specialist responsible for the activity for the purpose of evaluating the deliverables submitted by the consultant (Individual Consultant). Therefore, the FM will ensure that no payment to the

consultant is prepared unless an approved report received from the specialist assures that this report is compliant with the contract terms and conditions, these documents should be passed first through the procurement officer.

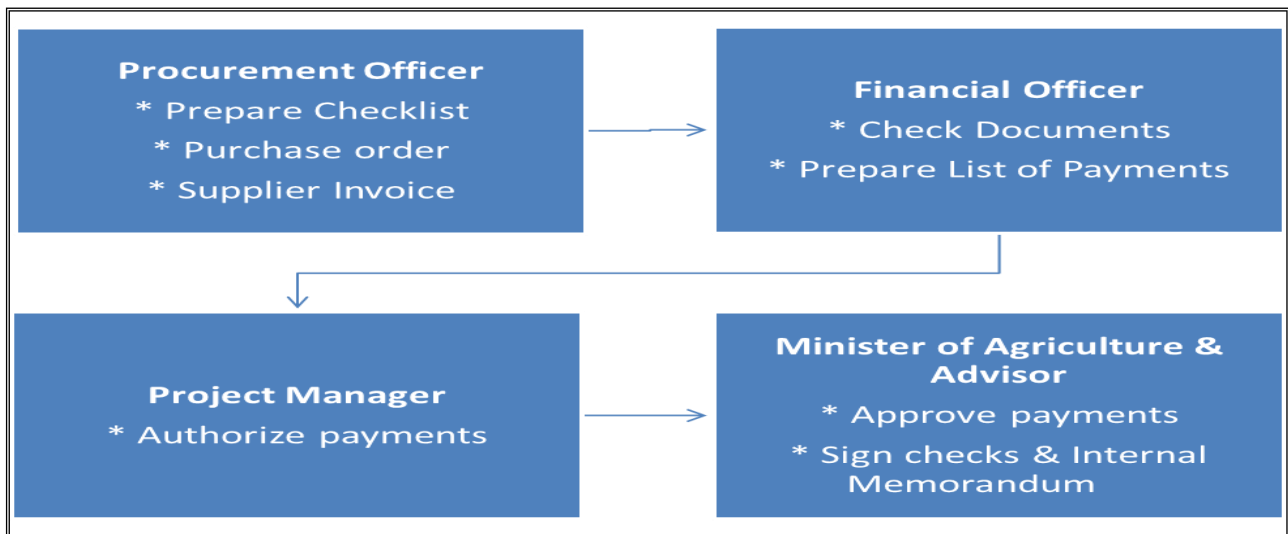
All Supporting Documents and Internal Forms must be retained at the PMU Office in the LPA and must be maintained and archived in accordance with the maintenance of records section of this manual.

8.4 Processing of Payments for Office Supplies and Other Operating Costs

101. The payment for office supplies and operating cost will be against the preparation by the procurement officer of a serially numbered checklist evidencing the receipt of office supplies, and the presentation of the Purchase order and supplier invoice. The FM will compare the information on the checklist to the purchase order and supplier invoice, then sign the checklist. The payment for services is against the presentation by the supplier performing the service of a service invoice.

At the end of each month, the FM will prepare a serially numbered "List of Payments" that detail all the incurred costs for office supplies and operating costs during the month and present it to the PD for review and authorization. After the PD's authorization of the payments, the FM will prepare the checks and send them to the PD who will prepare an "Internal Memorandum" detailing the check numbers, amounts, suppliers and explanation of payments. The "Internal Memorandum" and the checks will be presented to the Minister of Finance and his Advisor to approve the payments and sign the checks.

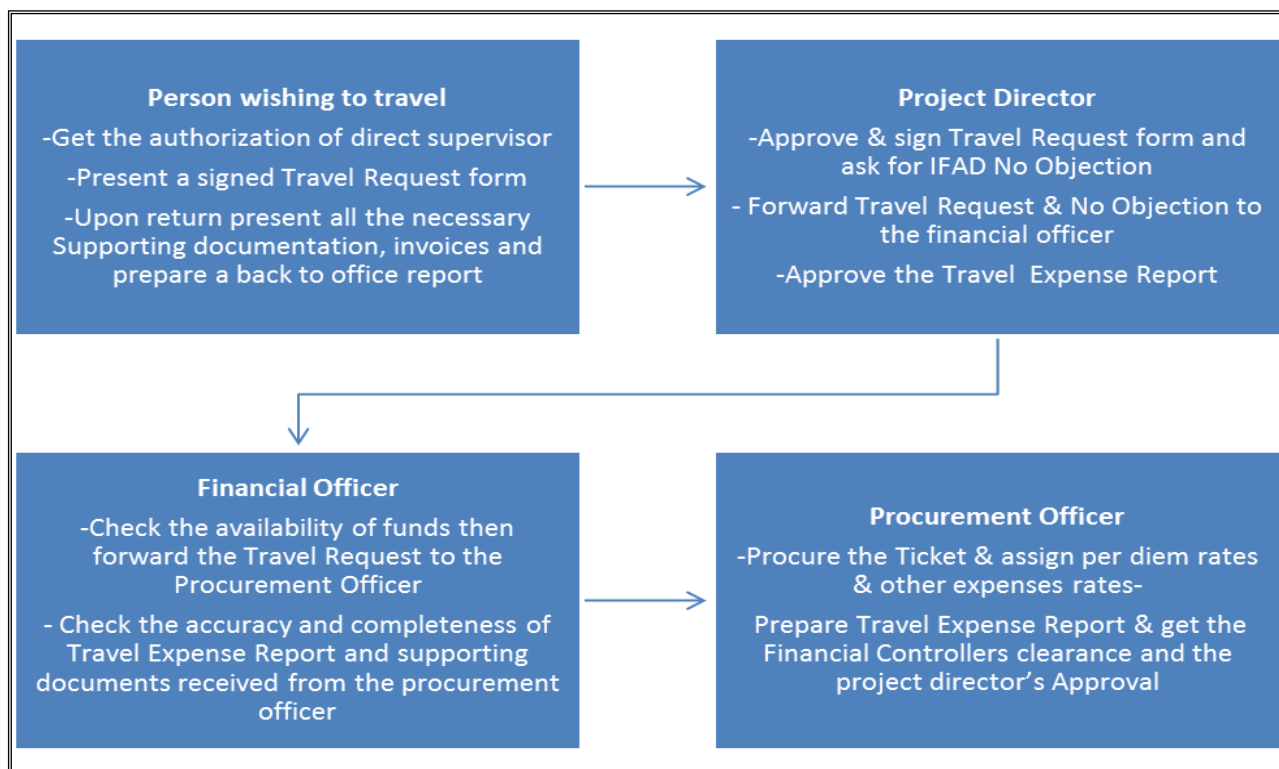
The following chart summarizes the process detailed above:



(Chart 15: Processing of Payments for Office supplies and operating costs)

8.6 Travel Arrangements & Processing of Travel Related Expenditures

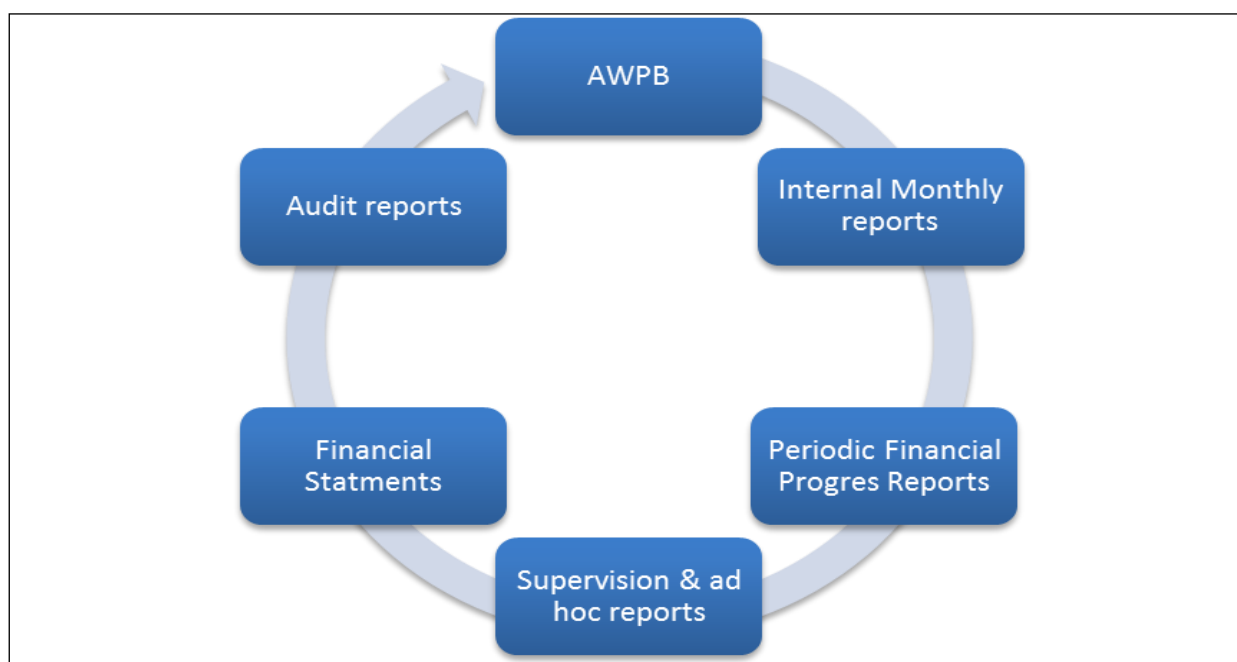
102. Under the Project there is a budget allocated for workshops and study tours as well as staff training courses. The following chart summarizes the transaction cycle that should be followed to get approval for the travel and the expenditures related to it:



(Chart 16: Processing of Payments for Travel and Training)

9.0 Financial Reporting

103. Periodic financial progress reports are a formal requirement of the IFAD Financing Agreement. Sufficient information must be made available about what money is spent on, how much is spent and what the results are. The major financial reports include the following: AWPB, monthly financial reports, periodic financial progress reports, supervision reports, annual financial statements and audit reports.
104. The preparation of the monthly financial reports, periodic financial progress reports, reporting on in-kind contributions (the detailed guidance on this type of reporting will be provided by IFAD in the start-up of the project), quarterly IFRs, supervision reports, annual financial statements is made by the CDIC as per this FM manual requirements and provided for to county BOFs and PPMO for final review, verification and consolidation. The PPMO FM based on the provided information will consolidate all 7 CDIC reports in one and will prepare consolidated IFR and other relevant reports (including internal audit reports if available) required by IFAD. The CDICs should also provide their annual audit reports to PPMO as well as to NAO and to IFAD as requested.



(Chart 17: Project Financial reporting cycle)

In addition to the AWPB, supervision reports and audit reports (discussed in detail in section 2, 11 and 12 of this manual), the FM will ensure that the following financial reports are prepared in a timely manner and submitted to IFAD in due time (applicable to reports 2-4 only):

1. Monthly financial reports for PPMO internal use only. These reports will be verified during IFAD supervision missions.
2. Periodic (quarterly) interim financial reports (IFR), to be provided to IFAD within 30 days after the reporting period.
3. Annual financial statements, to be provided to IFAD within 3 (three) months after the end of the project fiscal year.
4. Annual financial statements audited by an independent auditor acceptable to the Fund and in accordance with internationally accepted auditing standards and terms of reference cleared by IFAD, to be provided to IFAD within 6 months after the project fiscal year (explained in detail in section 11).

9.1 Monthly Reports

105. In accordance with best practices, the FM will prepare monthly financial reports based on the accounting system to aid management decision and control. The monthly management accounts will include the following.
- Monthly Budget Execution Report, summarizing the budget-actual comparison of the expenditures incurred, component-wise and category-wise. The report will also include a list of commitments entered into and still to be paid, by component and by category.
 - Bank Reconciliation Statements.
 - Petty Cash reconciliation forms.



Please see a sample of the above-mentioned report in Appendix V.

9.2 Periodic Progress Reports

106. Quarterly interim financial reports (IFRs) should be submitted to IFAD no later than 30 days after the end of reporting period during the programme implementation period.

The importance of the periodic progress reports lies in the fact that they provide IFAD with sufficient information to determine whether the funds disbursed to the project are being used as intended, the project implementation is on track and the budgeted costs will not be exceeded. The financial information should be linked to the information on physical progress and procurement to give assurance that the financial and physical progress are consistent.

The IFRs include the following:

- **Project Statement of Cash Receipts and Payments by Category:** This report summarizes the sources of project financing, with the uses of funds in accordance with the disbursement categories foreseen in the Financing agreement with the Fund. This report also states the cumulative expenditures from the start of the project until the date of the report as well as the cash flow forecast for the following quarterly period. The automated accounting system has been tailored to generate the report with all required details.
- **Uses of Funds by Project category:** This report details the project expenditures by each expenditure category or sub category and by financier.
- **Uses of Funds by Project Activity:** This report details the project expenditures by each component or sub-component consistent with those foreseen in the Financing Agreement. The total planned, actual and cumulative expenditures in this report should correspond to those mentioned in the uses of funds section of the "Sources and Uses of Funds" report presented above.
- **Cash flow forecast:** This report summarizes the cash inflow and outflow for the following semi-annual period (split by quarters) and is explained in detail in section 9.3.
- **Designated Account Reconciliation Statement**



A sample of a quarterly IFR is provided in Appendix VI.

- **Withdrawal Application Statement:** This report summarizes the claimed and received WA from IFAD during the reporting period.



A sample of a WA statement is provided in Appendix VII, Table 2.

- **Contract Expenditures:** This report details all the contracts signed and amounts paid during the quarter by category.



A sample format for this report is provided in Appendix VII.

9.3 Cash Flow Forecast

107. Preparing periodic cash flow forecasts is essential to ensure the project has sufficient funds to meet its commitments (expenditures to contractors, service providers, suppliers of goods, salaries of the PMU staff, operating and maintenance cost of the PMU such as rent, electricity, internet etc.) as they fall due. It is the FMs responsibility to prepare periodic cash flow forecasts by undertaking the following steps:

1. Determining the opening balance of the time period
2. Determine (as accurately as possible) all the cash inflow already secured from different sources during the time period on a monthly basis.
3. Determine (as accurately as possible) all the payments due during the time period on a monthly basis.
4. Based on the calculation (steps 1-3) determine the estimated cash need for time period in question.

When preparing the cash-flow analysis, key sources for information include the AWPB (up-to-date), the procurement plan (up-to-date), disbursement timetable of all signed contracts and historic expense reports for PMU management costs as these can be assumed to stay relatively constant over the implementation period.

Based on the estimated cash flow needs, the FM in consultation with the PD will prepare an submit for approval the required withdrawal applications in a timely manner in order to ensure sufficient liquidity and avoid any delays to the project implementation.



Sample of a cash flow forecast is provided in Appendix VI.

9.4 Annual Financial Statements and Audit Reports

108. IFAD requires that the financial statements are prepared in accordance with IPSAS cash (National Standards are also acceptable as long as they meet the minimum requirements) and that the annual statements are provided to IFAD within 3 (three) months after the end of the fiscal year. In accordance with the Project Design Report, the project will prepare it financial statements in accordance with IPSAS cash.

The project financial statements should include the following information:

- Project Information and performance,
 - Statement of project management responsibilities,
 - Statement of cash receipts and payments (by category and by financier),
 - Statement of cash receipts and payments (by component),
 - Statement of comparative budget and actual amount,
 - Statement of Special Account movements,
 - Statement of Special Account Reconciliations,
 - Statement of Fixed Assets;
 - Withdrawal Application Statement and Notes to the Financial Statements.



A sample of financial statements are provided in Appendix XV.

It is important to note that IFAD financing proceeds should be disclosed separately form the other financiers (donors, government, beneficiaries etc.). It is also important to note that where the project consists of more than one entity the lead-PMU must provide consolidated financial statements.

10.0 Fixed Asset Management

109. Fixed asset management is an important process that seeks to track fixed assets for the purposes of financial accounting and to ensure preventive maintenance, and theft deterrence. Adequate Fixed asset maintenance also increases the sustainability of the project.

There are three elements in fixed asset management that require the attention of the FM:

- Purchase of equipment;
- Setting up and maintaining an asset register including verification;
- Setting up a plan for disposal and/or handover of the asset once the project is completed.

10.1 Purchase of Equipment

110. All procurement and payments for project equipment will be processed in line with the guidance provided in the procurement section of the PIM. The financial officer should assign a unique, sequential asset number to all furniture and equipment items purchased (excluding minor items such as stationary). This must be clearly labelled on each item. Each item of equipment must be recorded in the fixed asset register.

10.2 Asset Register

111. The Financial manager must maintain a register of all (material) project equipment. This will be recorded on the asset management module of the accounting software. The asset register should record the following information for each individual piece of equipment: 1) Asset description, 2) Asset number, 3) Serial number of the item, 4) Officer responsible for asset, 5) Funding of asset (IFAD, government etc.), 6) Location; Date of purchase; and 7) Estimated life.



A sample of a fixed asset register is provided in Appendix VIII.

10.3 Asset Verification Review

112. The FM must ensure that a verification count of all equipment recorded in the fixed asset register is performed at least once a year. This should include the following checks:
- Verify that all equipment is still held in the location recorded on the register; and
 - Check that equipment is still in a reasonable state of repair.
 - Discrepancies between the verification exercise and the fixed asset register should be investigated. Where assets are missing or seriously damaged, they should be removed from the asset register. The removal should be formally documented and approved by the financial officer and by the LPA.

The verification review must be performed by different staff from those who use the equipment, to ensure adequate segregation of duty. At the end of the project the assets purchased at the expense of Loan proceeds should be verified, listed and handed over to the LPA administered by the Government.

10.4 Vehicle Maintenance and Fuel

113. The drivers are required to record all trips and fuel refills in a logbook and collect all the supporting documentation (invoices etc.). The vehicle logbook provides control over the use of the cars as well as fuel consumption. Fuel distribution is handled by the FM. Fuel is purchased on an as-needed basis by giving coupons to the drivers who must use the selected fuel station. The PMU is billed by the station twice a month. Unused coupons are kept in the office safe in the custody of the FM. For official missions, a special cash provision is given to mission leaders to allow them to purchase fuel (at reputable gas stations) during the trip.

114. The safety of cars is the responsibility of the recipient staff members and drivers assigned to the vehicles. Consequently, they must ensure that the cars are parked in a secure area when not in use or outside working hours. The drivers are required to monitor the maintenance of their assigned vehicles under the supervision of the PMU. The drivers must notify the PMU of maintenance needs so that the cars can be serviced on a timely basis. The cars must always be taken to the selected PMU garage for repairs and maintenance
115. The DFM should on a monthly basis review the mileage and fuel usage as well as any undertaken service as reported in the log book of each car and compare these with the official invoices and travel authorizations etc. to make sure the numbers are accurate.
116. An insurance policy must be taken by the PMU to ensure all cars and passengers against all risks, including damage, theft, fire, as well as injury and property damage to third parties. The insurance must also cover the same risks when the cars are used by the recipient staff members outside of normal working hours.



A sample of a vehicle log and vehicle history record log is provided in Appendices X A & X B.

11.0 Audit Arrangements

117. The project audit is an ex-post review of financial statements, records of transactions & financial systems; It examines the adequacy of accounting systems & procedures, capacity to maintain appropriate accounts & documentation of the project/grant expenditures. The objective of the project audit is to provide credibility and assurance of accountability.
118. The auditing is conducted by the DAO which is constituted as an independent body under the National Audit Office (NAO) and responsible for the audit for all IFIs projects in China. The Provincial Audit Office will be delegated to be responsible for auditing the project. PAO has rich experiences with WB, ADB and IFAD project auditing. The audited financial statements in English and a detailed audit report in English along with a separate Management Letter in English not later than six months after the end of each financial year.
119. IFAD will publicly disclose project financial statements and audit reports of projects financed by IFAD. In line with the standards of the International Aid Transparency Initiative, the government is encouraged to publish relevant financial information on their own websites, for increased accountability. The audit TORs shall explicitly mention the right of the borrower/recipient and of IFAD to publish the audit report, with no limitation-of-use clause.
120. The Audited financial statements need to be sent to IFAD no later than 6 months after the end of the fiscal year. The detailed instruction regarding project audit are outlined in the IFAD guidelines for project audits available at <http://www.ifad.org/pub/basic/index.htm>

11.1 The Audit Cycle and Appointing the Auditor

121. The complete audit cycle can be divided into the three main roles carried out by the FM/PPMO, the Auditor and IFAD.

The PPMO and the financial officer will:

- Prepare the financial statements for reporting period
- Make available all the financial information necessary to the auditors.
- Respond to the audit findings and recommendations.
- Submit the audit report to the fund no later than 6 months after the end of the project fiscal year.

The Auditor will:

- perform the audit work including the audit opinion
- Indicate any ineligible expenditures
- Provide a management letter

The Fund will:

- Indicate / appoint the auditor by FMFCL
- Monitor timely submission and review of audit reports
- Follow up on remedial action\apply sanction and /or remedies if relevant including suspension of disbursement and or cancellation of loan balance (Legal Notice is sent to the LPA after 3 months of delay. Suspension of disbursement to the project after 6 months delay.)

11.2. TORs of the Auditors

122. When the auditor is appointed by FMFCL, the IFAD provides the IFAD Handbook for Financial Reporting and Auditing with full description of TOR for auditor describing the scope of audit and responsibility of auditor.
123. The following additional information can be provided to the auditor upon request:

- a) Organizational charts;
- b) Names and titles of senior managers;
- c) Names and qualifications of officers responsible for financial management, accounting and internal audit;
- d) name and address of any existing external auditor, if a change is made;
- e) Description of information technology facilities and computer systems in use and
- f) Copies of the latest financial statements, financing agreement, minutes of financing negotiations, project design document, and annual work programme and budget, if it is available.

11.3 The Audit Report

124. The Audit Report must include the following elements which are also be reflected in the IFAD Handbook for Financial Reporting and Auditing:
- An opinion on the Project's financial statements
 - In addition to the audit report, the independent auditor will prepare a management letter. This will include comment and recommendations on the adequacy of the financial management system, and on the system of internal control. The management letter should also include a follow up section on the status of implementation of previous years recommendations and the observations should be presented in a priority level e.g. High, Medium and Low. The Management letter should also provide management response to the auditor's observations.
 - All audit report package listed below should be provided in English and English version should be certified and signed by the auditor:
 - Audit report: Audited Financial Statements with Audit opinion;
 - Management letter.

12.0 IFAD Supervision

125. The project will be subject to extensive supervision from IFAD during the whole implementation period to ensure that the PMU fiduciary requirements are completed on time and to minimize the project's fiduciary risk.
126. If financial arrangements of the PMU are deemed acceptable, IFAD will rely on them to provide assurance that the financing proceeds are being used for the intended purposes. In the case that IFAD identifies weaknesses in the financial arrangements, it will require the PMU/LPA to take the appropriate measures to mitigate those risks e.g. changing the design and operation of internal control processes or modifying the disbursement arrangements for an operation.

The IFAD supervision of the project includes the following measures:

- Monitor of timely submission of audit reports and review of these reports
- Verify compliance to audit recommendations and recommendations made by past supervision missions.
- Monitor the submission of timely periodic financial reports and review of these reports
- Monitor disbursements rate and the quality of the received Withdrawal Applications
- Annual or semi-annual financial management supervision missions.

12.1 Supervision missions by the Fund

127. Throughout project implementation, IFAD will conduct annual financial supervisory missions to develop financial management ratings and ensure compliance with the IFAD's requirements. During the supervisory missions, IFAD will assess and monitor the adequacy of the PMU/LPA financial management arrangements such as accounting, budgeting, internal controls, flow of funds, financial reporting and the auditing practices. The key findings and recommendations of the mission will be captured in the Aid Memoire.
128. When preparing for and during an IFAD supervisions mission, the necessary supporting actions by the FM will include the following:
- Update and make available for the mission, the project financial information and especially the incurred expenditures by component, by category and by financier as of the last day of the preceding month.



Please refer to Appendix XI for the financial tables required for the aid memoire.

- Update and make available reports on the status of counterpart funding (has the Borrower/Lead Project Agency made available financing proceeds to the Project as planned?).
- Provide a walkthrough of the existing accounting system including its main modules, budgeting, accounting, financial reports, fixed asset register as well as the security settings in use.
- Facilitate checking of the internal controls, by system "walk through" to ensure that approved procedures are consistently being followed.
- Make available Withdrawal Applications, Statement of Expenditures and all supporting documentation regarding expenditures claimed under the SOE thresholds to facilitate the verifying of adequacy, completeness and validity of claims.
- Make available evidence of qualifications and educational background of the financial staff including, organogram of the PMU, CVs, TORs of each position and PMU training plan.
- Update and make available a complete a fixed asset register and facilitate sample test check of physical existence of the asset.
- Make available written procedures regarding financial operations such as processing of transactions, financial administration manual, accounting manual, fixed asset maintenance and records management as well as the lead project agency's anticorruption policy and whistle blowing procedures.
- Prepare and make available the updated bank account reconciliation statement and bank account statements for all designated and project accounts.
- Arrange meeting with the auditors and any other selected party requested by the mission.
- Make available all necessary documentation and contracts regarding procurement not subject to prior review.
- Provide an update on the actions taken regarding past audit recommendations as well as action points outlined in the past aide memoires.
- Make available the most recent AWPBs, annual and semi-annual reports.
- Participate in report writing if necessary.

13.0 Loan completion and Closing

129. The closing of the loan/grant is due six months after the project completion date. Both the completion and the closing date of the loan have financial implications on the project management such as: development and submission of a recovery plan, ensuring eligibility of expenditures and submission of the necessary documents outlined below.

13.1 Recovery plan

130. To ensure that the designated account is completely and timely justified, the financial officer/PMU has to develop and submit to the Fund a so-called recovery plan outlining the percentages per withdrawal application that will be recovered and paid respectively. The recovery plan should be submitted to the fund at least 12 months before the closing date or when the outstanding balance (amount still undisbursed by IFAD is less than the double of the authorized allocation).



Please refer to Appendix XII for a sample recovery plan.

13.2 Loan Completion

131. As defined in the Financing agreement the completion date of the loan is its 6th anniversary; that is six years after it entered into force. By the completion date all the project activities must have been finalised. The payments can be done also after the completion date, as long as the commitments/ contracts are signed prior to the completion date. Activities that have continued after the completion date are not considered as ineligible expenditures and can therefore not be financed by the IFAD funds.
132. After the completion date but no later than the closing date (six months after the completion date) the PMU can still incur expenditures related to so called winding up expenditures e.g. Final Audit, Project completion report, Project staff salaries involved in the winding up activities, PMU maintenance cost, project completion workshop.

13.3 Loan Closure

133. The Fund requires the following to be provided by the PMU in order to close the loan:
- Confirmation of last withdrawal application
 - Submission of final audit report
 - Submission of project completion report

The Final Audit Report has to cover, the final project year up to the final expenditures.

Appendices to the Financial Manual:

Appendix I: Sample Job descriptions related to Financial Management and Administration

Appendix II: Sample Annual Work Plan and Budget
Appendix III: Sample Chart of accounts
Appendix IV: Sample TORs for an accounting software
Appendix V: Sample Monthly Budget Execution Report
Appendix VI: Interim Financial Reporting (all reports)

Appendix VII: Sample Periodic Progress Report
- Table 1: SOE-Withdrawal Application Statement.
- Table 2: Signed Contract Listing
- Table 3: Physical Progress Report

Appendix VIII: Fixed asset register
Appendix IX A: Petty Cash Request Form
Appendix IX B: Petty Cash Reconciliation Form
Appendix X: Petty Cash Vehicle Log
Appendix X B: Vehicle History Record

Appendix XI: Required Aide Memoire tables for IFAD Supervision missions

Appendix XII:	Sample	recovery	plan	
Appendix XIII:	Designated	account	reconciliation	statement
Appendix XIV:	Checklist	for	Withdrawal	Application
Appendix XV:	Sample of financial statements			

Appendix I: Sample Job descriptions related to Financial Management and Administration

A. Project director (PD)

134. Responsible for all aspects of IFAD projects implementation under direct supervision of the Steering Committee and the Lead Project Agency. Specific duties:
- Plan, organize and coordinate project implementation in line with rules and regulations and provisions of the loan/grant agreements.
 - Elaborate and review project documents as well as IFAD standard procurement and disbursement documents.
 - Organize, coordinate, monitor, and control the work plan, budget and procurement plan to ensure delivery of project outputs.
 - Ensure the efficient management of project resources in a transparent manner.
 - Supervise project disbursement, accounting and financial management and ensure eligibility of funds use in accordance with the loan/grant agreements.
 - Ensure that procurement of goods, services and works is carried out according to project design and IFAD procedures.
 - Manage the PMU staff to ensure efficiency, including appraising their performance annually.
 - Communicate the projects' objectives and components, to target groups including stakeholders to ensure sustainability and ownership of the project.
 - Assess qualifications and pre-qualifications of implementing partners, consultants, and contractors that may be selected for project implementation.
 - Negotiate contractual arrangements with various implementing partners and contractors.
 - Evaluate performance of implementation by governmental and non-governmental implementing partners, consultants and contractors.
 - Prepare agreements with beneficiaries, stipulating the conditions of their participation.
 - Ensure a close cooperation and coordination with other national and international development partners at national and district level.
 - Update the Project Implementation Manual if and when necessary,
 - Prepare quarterly and annual reports to IFAD, the steering committee and LPA as well as other stakeholders (if any).
 - Develop and maintain a M&E and MIS to monitor project progress and performance.
 - Ensure full compliance with directives issued by the Project Steering Committee and the LPA.

B. Financial manager (FM)

135. Under the direct supervision of the PD, and within the framework of projects appraisal reports and loan/grant agreements, responsible for the financial and administrative management of the PMU, including Accounting, Budgeting, financial reporting, internal controls, auditing arrangement, flow of funds and the efficient management of projects resources. Specific duties:
- Prepare together with the PD the Annual work plan and budget and the budget and financing plan in particular.
 - Master IFAD key documents such as, the FMFC handbook, procurement guidelines and handbook, IFAD guidelines for project audits, the Financing Agreement (FA) and the FMFCL.

- Develop and maintain an efficient accounting system and reliable internal control procedures and guidelines for financial reporting and recordkeeping.
- Responsible for the preparation, review and monitoring of projects budgets including financing plan, procurement plan (together with the Procurement Officer), and staff development plan (together with the training focal point)
- Prepare/verify all withdrawal applications for submission to IFAD, and ensure the availability of funds for all planned activities. Manage the projects bank accounts, approve and co-signs all payments.
- Responsible for all project procurement, either directly or by delegation.
- Consolidate data from counties, prepare and timely submit quarterly interim financial reporting (IFR) as per the IFAD requirements.
- Prepare and provide financial reports including the sources and uses of funds statement, incurred expenditures by component, expenditure category and financier, designated account reconciliation statement, fixed asset list and cash flow forecast etc. for submission to the Project steering committee, LPA and IFAD on a semi and annual basis, and maintain all records in a form appropriate for audit.
- Lead the process of contracting an external audit firm to conduct an independent audit of the annual project accounts, ensuring that annual audits are carried out within the specified timeframe.
- Develop and maintain a system of financial control over all expenditure incurred by implementing partners.
- Responsible for developing and managing an effective and performance based human resources management system.
- Supervise and coordinate the work of staff placed under his/her direct authority.
- Review and regularly update the Financial Manual of the PMU.
- Responsible for the organization and supervision of the PMU office, assets, logistics, and all administrative matters.
- Undertake any other activities assigned by the PD.

C. Financial Assistant (FA)

136. Under the direct supervision of the FM; specific duties include:

- Assist the FM in the implementation of a sound financial management system.
- Prepare financial reports, including monthly funds reconciliation, and monthly, quarterly, semi-annual and annual expenditure statements;
- Prepare transaction vouchers, and input all transactions into the PMU accounting system before submission to the FM for approval;
- Process all payments, ensuring that PMU procedures are strictly adhered to;
- Process monthly payroll, payment of salaries to staff and project contributions;
- Manage and report on the use of Petty Cash in accordance with the approved procedures;
- Assist the FM in the preparation of withdrawal applications;
- Prepare cash flow forecasts as required;
- Monitor financial returns from Implementing Partners, including periodic visits to their offices;
- Assist in the preparation and monitoring of annual operational budgets
- Functional supervision and training of Accounts & Administrative Assistants in PMU.
- Maintenance of a well organized and up-to-date filing system for accounting and financial records as well as an fixed asset tagging system;

- Perform physical inventory of project assets each year;
- Assist the FM in the preparation of the accounting manual of the PMU
- Provide assistance to the external auditors as required;
- Undertake any other activities assigned by PMU management.
- Assist the FM in the implementation of a sound financial management system.
- Assist the Financial DFM in preparing financial reports, including monthly funds reconciliation, and monthly expenditure statements;
- Assist the FA in prepare transaction vouchers, and input all transactions into the PMU accounting system before submission to the FM for approval;
- Assist the FA in process all payments, ensuring that PMU procedures are strictly adhered to;
- Assist the FA in process monthly payroll, payment of salaries to staff and Project contributions;
- Assist the FM in the preparation of withdrawal applications;
- Assist the FA and FC in prepare cash flow forecasts as required;
- Assist in reviewing and monitor financial returns from Implementing Partners, including periodic visits to their offices;
- Assist in the preparation and monitoring of annual operational budgets
- Collate data received from colleagues into the system.
- Manage a well organized and up-to-date filing system for accounting and financial records;
- Assist in providing assistance to the external auditors as required;
- Undertake any other activities assigned by PMU management.
- Supervise the driver(s) and office attendant.
- Perform secretarial duties, including maintenance of a well organized filing system.
- Collect and review financial reports from implementing partners at district level.

Appendix II: Sample Annual Work Plan and Budget

Tables 1-4: Sample Budget and Financing Plan

Summary table 1: Planned Project Expenditures by Component and Financier

Component	Total		Financing Source				Beneficiaries
	Local	USD	IFAD Loan	IFAD Grant	Government (Budget)	Government (Tax)	
1. Rural Market Development							
1 a. Rural Market innovation strategy							
1b. Rural Market infrastructure							
1c. Women Capacity Building							
2. Irrigation Infrastructure							
3. Rural Finance							
4. Programme Management							
Total							

Summary table 2: Planned Project Expenditures by Expenditure Category and Financier

Category	Total		Financing Source				
	Local	USD	IFAD Loan	IFAD Grant	Government (Budget)	Government (Tax)	Beneficiaries
I. Civil Works							
II. Equipment, Goods and vehicles							
III. Technical assistance and Studies							
IV. Training and Workshops							
V. Credit line							
VI. Incremental Operating Costs							
Total							

Summary table 3: Planned Project Expenditures by Component and Expenditure Category

Component	1. Rural Market Development	1 a. Rural Market innovation strategy	1b. Rural Market infrastructure	1c. Women Capacity Building	2. Irrigation Infrastructure	3. Rural Finance	4. Programme Management	Total
Category								
I. Civil Works								
II. Equipment, Goods and vehicles								
III. Technical assistance and Studies								
IV. Training and Workshops								
V. Credit line								
VI. Incremental Operating Costs								
Total								

Table 4: Detailed Tables per Component, Expenditure Category and Financier

Category	Description of activity by Component/subcomponent	Items				Physical Outreach	Timeline					Financing Source						
		Unit	Unit cost	Quantity	Total		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total	IFAD Loan	IFAD Grant	Gov. (Budget)	Gov. (Tax)	Benef.		
III. Technical assistance and Studies	1. Rural Market Development																	
	1 a. Rural Market innovation strategy																	
	value chain expert Awareness building Workshop Baseline study Local Market survey Seminar Publications and booklets																	
III. Technical assist	1b. Rural Market infrastructure																	
	Feasibility study																	

ance
and
Studi
es

Awareness seminar building

Publications

I. Civil
Works

Rural roads

Table 5: Sample Procurement Plan

Table 5: Procurement plan																						
									Preparation of Tendering Process		Bidding Process					Evaluation Process				Contract		
Component	Subcomponent/Activity	Item	Unit	Quantity	Unit cost estimate (USD)	Total cost estimate (USD)	Financing Source	Procurement Method	Bid Document	IFAD no objection	Publication (date)	EOI	Response Time	Closing Date	Opening Session	Bid/quote evaluation (date)	Prior review required	Final report	No Obj	Notification of Award	Signature	End Date
WORKS																						
item1																						
item2																						
GOODS																						
item3																						
SERVICES																						
item4																						

Table 6: Sample Staff Development Plan

Such staff development plan will include compulsory training of staff on gender, sexual harrassment and safeguards;

Table 6: Staff Development Plan

Category	Component	Name and description of person(s)	Description of training activity	Proposed trainer/training institution	Loaction of the training activity	Estimated cost of the training activity (USD)	Additional costs (e.g. travel, accomodation. DSA)	Financing source
IV. Training and Workshops	4. Programme Management	Financial controller of the PIU	Financial Management Course	ITC/ILO	Turin Italy	4 000	3 500	IFAD Loan
IV. Training and Workshops	4. Programme Management	Administrative assistant of the PIU	advanced course in English	Professional Language Institute	Local	2000	na	IFAD Loan

Appendix III: Sample chart of account (This will be adjusted once the cost tabs are finalized)

Chart of Accounts

<u>Account code</u>	<u>Account name</u>
1-00-0-0	Establishment of a Macro-Fiscal Analysis Unit
1-01-0-0	International Advisory Services
1-01-0-1	Macroeconomic Analysis & Modeling Advisor
1-02-0-0	Local Advisory Services
1-02-0-1	Full-Time Macroeconomic Analysis & Modeling Advisor
1-02-0-2	Fiscal Team Support Advisor
1-02-0-3	Public Enterprise Coverage Advisor
2-00-0-0	Public Expenditure Management
2-10-0-0	Cross-Cutting Issues
2-11-0-0	International Advisory Services
2-11-0-1	Legal Consistency Advisor
2-11-0-1	Senior Advisor PIP/ Loi-Programme
2-20-0-0	Expenditure Planning & Budget Formulation
2-21-0-0	International Advisory Services
2-21-0-1	Resident Budget Planning Advisor
2-21-0-2	Visiting Budget/ Sectoral MTEF Advisor
2-21-0-3	High-Level Review of BC / CoA Advisor
2-22-0-0	Local Advisory Services
2-22-0-1	Budget Preparation Advisor
2-22-0-2	Sectoral Economist A
2-22-0-3	Sectoral Economist B
2-22-0-4	Review of BC / CoA Advisor
2-30-0-0	Budget Execution, Monitoring & Audit
2-31-0-0	International Advisory Services
2-31-0-1	Senior Public Audit Expert
2-31-0-2	Treasury Management Strengthening Advisor
2-31-0-3	Budget Execution System Diagnostic & Solutions Advisor
2-32-0-0	Local Advisory Services
2-32-0-1	Treasury Management Strengthening Advisor
2-32-0-2	Development of a Cash Forecasting Tool (Software Development)
2-32-0-3	Budget Execution System Diagnostic Advisor
3-00-0-0	Debt Management
3-01-0-0	International Advisory Services
3-01-0-1	Debt Strategy Formulation Advisor
3-01-0-2	Cost Risk Analysis Advisor
3-01-0-3	Debt Strategy Implementation Advisor
3-01-0-4	Data & Debt Recording Advisor
3-02-0-0	Local Advisory Services
3-02-0-1	Debt Management Advisor
3-02-0-2	Legal Advisor
4-00-0-0	Aid Coordination & Management
4-01-0-0	International Advisory Services
4-01-0-1	Resident Aid Coordination & Management Advisor
4-02-0-0	Local Advisory Services
4-02-0-1	Aid Coordination & Management Advisor
4-03-0-0	Miscellaneous Expenses
4-03-0-1	Representation at Donor Meetings
5-00-0-0	Training & Capacity Building
5-01-0-0	International Advisory Services
5-01-0-1	Training Design & Implementation Advisor
5-02-0-0	Local Advisory Services
5-02-0-1	Training Coordinator

- 5-03-0-0 Miscellaneous Expenses**
- 5-03-0-1 Workshops
- 5-03-0-2 Study Tours
- 6-00-0-0 Project Management**
- 6-01-0-0 Local Advisory Services**
- 6-01-0-1 Project Manager
- 6-01-0-2 Financial Management Specialist
- 6-01-0-3 Procurement Specialist
- 6-02-0-0 Miscellaneous Expenses**
- 6-02-1-0 Operating Costs**
- 6-02-1-1 Accounting Software
- 6-02-1-2 Office Equipment
- 6-02-1-3 Office Equipment Maintenance Expense
- 6-02-1-4 Stationary & Office Supplies
- 6-02-1-5 Advertising Expense
- 6-02-1-6 Post Expense
- 6-02-1-7 Translation Expense
- 6-02-1-8 Printing Expense
- 6-02-1-9 Bank Charges
- 6-02-2-0 Project Audit**
- 7-00-0-0 A/C Payables**
- 8-00-0-0 Bank & Related Accounts**
- 8-01-0-0 BDL Designated Account
- 8-02-0-0 IFAD Account
- 8-03-0-0 Foreign Exchange Difference

Appendix IV: Sample TOR for an accounting software

IFAD Project XXXX

Accounting Information System

A. Background

The LPA is currently in the process of implementing an IFAD Project XXXX. The project is implemented through a project implementation unit (PMU) within the LPA. In order to comply with IFAD's reporting requirements, the LPA will need to procure an Accounting Software to be used by the PMU for the Project for the following purposes:

- 1) to collect, analyze, store, and distribute information that is useful for decision making
- 2) to provide transparency and accountability of the project activities,
- 3) to provide timely reports, help detect errors and deficits during project implementation and indicate necessary corrections, and
- 4) to prepare and present progress reports to the PMU, LPA and IFAD.

The project will be managed from the PMU/LPA located in the Changsha and in selected counties where the project will be implemented. The main functions will be run from the PPMO in the capital but accounting entries will also be executed from the regional offices in the selected counties.

B. Specifications of the Software

General features

1. The Accounting software should be configured as a modular solution and the different modules should be suitably integrated, the following are the basic modules:
 - a. Chart of Account
 - b. Accounting
 - c. Financial Reporting
 - d. Budget
 - e. Assets
 - f. Withdrawal Application
 - g. Contract Management, and integrating other modules if needed.
2. classifying the levels of the Chart of account into four levels;
 - a. Type (Assets – Liabilities – Expenses)
 - b. General Ledger Account
 - c. Subsidiary Accounts
 - d. Subsidiary -1 Accounts, to end up with auxiliary accounts.
3. Handling all the financial transactions of the Project according to the chart of account, that is used to:
 - a. Capture the financial data under the appropriate headings
 - b. Classify and group financial data for the various financial reports. The structure of the Chart of Accounts caters data to be captured by:
 - i. the Project components and sub-components
 - ii. expenditure items under each component and sub-component
 - iii. The IFAD disbursement category for the Project
 - iv. Sources of funding
4. All vouchers used in the system are based on double entries.
5. Ability to account under different bases of accounting (cash, modified accrual, Accrual)
6. using adjusting entry when needed
7. Handling the definition of various currencies used by the system
8. Holding multi – donor's information, with notification that no contract will have more than two donors.
9. recording the daily currency rates for all the predefined currencies, if reports can be demanded by Lebanese Government currency
10. Recording the loan number and source of fund.

11. Capacity to customize reports by e.g. exporting data to excel.

Financial reporting

12. Produce the quarterly IFRs as requested by IFAD:

- a. Statement of Cash Receipts and Payments per Project components showing quarterly, yearly and cumulative balances for the quarter and cumulative;
- b. Statement of Cash Receipts and Payments per Project categories showing quarterly, yearly and cumulative balances for the quarter and cumulative;
- c. Statement of Designated Account reconciling period-opening and end balances;
- d. Statement of Analysis of AWPBs with factual expenditures;
- e. Statement of fixed assets,
- f. Statement of Withdrawal Applications.

13. produce other financial statements on a quarterly and annually basis, which are as follows;

- a. Journal and Payment Vouchers
- b. Statement of Special Accounts
- c. Cost Center Statements

14. Progress report (physical) and not financial by contract, component and category (all projects). This request will involve:

- a. A function will be designed and developed to allow the user to define the planned (estimated) physical % completion on each period (year, Quarter).
- b. A function will be designed and developed to allow the user to enter/modify the actual reported on physical % completion on each period (year, Quarter).
- c. An Inquiry function to display physical progress on each contract
- d. A report showing detailed physical progress reporting per period
- e. A report showing up-to-date physical progress reporting per period

15. Consolidated report (financial report) of all projects managed under the software.

16. Recording the budget of all the activities of the project, and enable comparison of the actual performance with budgets/targets (quarterly, annual, and cumulative for the Project).

17. a fixed asset listing report indicating all relevant information (such as description, location, quantity, serial number, etc.) which needs to be updated and include any discrepancies between the regular physical inspection and the accounting records

18. Enhancement on the Withdrawal Application report to include the SOE and Summary sheet.

Procurement

19. Keeping detailed records for all the contractors and consultants (ID number, Name, Nationality, Address, Phone, Fax, e-mail, contact name "position, phone number, fax, bank account bank address" and other information needed), and the accounting system should afford information regarding the procurement cycle that took place before contract signature and report on the following:.

- a. Prior review thresholds;
- b. Procurement methods thresholds;
- c. Procurement reference;
- d. Activity description;
- e. Component (as per the description schedule of the Loan);
- f. Category (as per disbursement schedule);
- g. Estimated amount;
- h. Procurement method used;
- i. Prior/Post review;
- j. Date of issuance of advertisement;
- k. Bank no objection on bidding documents (Goods/works) or RFP (consultants);
- l. Date of bid (Goods/works) or RFP (consultants) submission;
- m. Bid opening date (goods/works) or Financial Proposal opening date(consultants);
- n. Bank No objection to evaluation report;
- o. Bank no objection to contract draft;
- p. Date of submission to the Bank of the Copy of signed contract;

- q. Contract related data (date of signature, date of completion, contract amount, and contract amendments and payments terms).

Security

- 20. Handling the required security according to predefined system security and privileges.
- 21. The program has adequate security features including password protection, not possible to delete a posted transaction, controlled access
- 22. Includes proper backup and system maintenance procedures.

Training and support

- 23. Training of the Financial manager, Financial assistant, and seven counties financial officers on all features of the software.
- 24. Provide a complete and a user-friendly manual.
- 25. Configuration and Full installation of the software in project computers, in PPMO and CPMOs.

C. Delivery time table

The commencement of services for this assignment is expected to be no later than the end of the first week of the signing of the contract.

The main objective of the firm is to deliver a well designed software, that facilitates reflection of project needs and be designed to provide the financial information required by all interested parties (the LPA, Ministry of Finance and IFAD) and fulfil the legal and regulatory requirements of the Provincial Forestry Department.

The firm is expected to deliver the system during the phase mentioned below:

Ref	Deliverable's Title	Duration
	Deliverable 1: install the present system week	1
	Deliverable 2: needed modifications should be applied on the system	3 weeks
	Deliverable 3: Training sessions on the system week.	1

Appendix V: Sample Monthly Budget Execution Report

6. Monthly Budget Execution Report												
			ACTUAL			Planned/Budgeted			Variance			Commitments Entered (not payed) To - Date
			Current Quarter	Year-To Date	Cumulative To-Date	Current Quarter	Year-To Date	Cumulative To-Date	Current Quarter	Year-To Date	Cumulative To-Date	
Cash Payments per Component												
1-	Component 1											
		Sub Component 1.1										
		Sub Component 1.2										
		Sub Component 1.3										
2-	Component 2											
3-	Component 3											
4-	Component 4											
Total												
Cash Payments per Expenditure category												
	Category 1:Works											
	Category 2: Goods											
	Category 3: Consultancy Services											
	Category 4: Credit line											
	Category 5: PIU cost											
Total												

Appendix VI: Quarterly Interim Financial Reporting

INTERIM FINANCIAL REPORT USER GUIDE											
<u>Protection Password:</u>		<u>1234</u>									
<u>Tips:</u>		<p>Provide information in cells highlighted with this color</p> <p>Text in blue: Provide period for the reporting statement</p> <p>The cells containing sums and analysis shall be updated automatically.</p>									
<u>Cash Forecast:</u>		<p>Provide project information in the highlighted Cells of the Sheet. The "Descriptions" of Categories and Components in this sheet are linked with other sheets. Once provided in this statement will automatically update the "Descriptions in all other statements.</p> <p>Projects are to provide Cash Forecasts, if disbursements are approved under IFR based disbursements method. For other projects, this statement would be optional.</p> <p>Provide funds forecast for the next two quarters along with anticipated direct payments, in line with approved Annual Work Plan & Budget for current year and, if not approved, draft Annual Work Plan & Budget for first quarter of subsequent financial year.</p>									
<u>Summary of Sources and Uses of Funds-DA Account:</u>		<p>Provide actual data in cells highlighted with this color.</p> <p>Provide the amounts received in/paid out from the Designated Account only.</p> <p>Provide required information in the cells highlighted with this color</p>									
<u>Variance Analysis - Reporting Quarter:</u>		<p>Provide forecasted figures in the highlighted cells for the reporting quarter. The Planned figures for the Quarter are to be taken from "Cash Forecast" of last submitted IFR.</p> <p>The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.</p>									
<u>Variance Analysis - Financial Year:</u>		<p>Provide approved AWPB figures in the highlighted cells for the respective year.</p> <p>The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.</p> <p>The Columns for Cash Forecast are linked with relevant columns of "Cash Forecast" statement.</p>									
<u>Variance Analysis - Cumulative:</u>		<p>Provide overall project allocations as per Project Design/Revisions (if any) in the highlighted cells.</p> <p>The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.</p> <p>Please provide brief comments to explain significant variances in extra sheet</p>									
Optional additional information (High, Substantial Risk Projects)											
Trial Balance											
Bank Reconciliation Statements											
Transaction Lists for selected expenditure categories											

Report I: AWPB and Cash Forecast for next 2 quarters

Country

Name of the Project:

IFAD Instrument number:

List other instruments if applicable

Expressed in Designated Account Denomination Currency

Currency:

For the Period:

Starting Date

To

End Date

		IFAD Instrument n. (add more columns for other instruments)						
			Annual Allocations	Actual cash outflow as of (current. Qtr. End)...	Annual Balance	Cash Forecast Next Quarter	Cash Forecast Following Quarter	Total Cash Forecast for the two quarters
		Ref.	A	B	C = A-B	D	E	F = D+E
Category:								
1	Category 1							
2	Category 2							
3	Category 3							
4	Category 4							
5	Category 5							
Total		I	-	-	-	-	-	-
Component:								
1	Component 1							-
2	Component 2							-
3	Component 3							-
4	Component 4							-
Total		II				-	-	-
Total Cash Forecast Expenditure		III				-	-	
Less: Planned Direct Payments/Reimbursements		IV						-
Net forecast expenditure from DA		V=III-IV				-	-	-
Opening balance available funds (DA+Project Banks +petty		VI						
Forecast: DA Replenishments (After reducing Advance Re		VII						
Projected closing balance		VIII=VI-V+VII						-
<p>Note 1: (VII) may be higher than (V) when there is need to have an extra amount in the DA to cover potential delays in future disbursements</p> <p>Note 2: The AWPB data covers Project Financial Year. Please note that Cash forecasts are rolling for next 2 quarters, which may not be within the same Financial Year for the</p> <p>Note 3: In Role VII, if a part of the advance is to be recovered in the period prior to Project Completion, reduce the recovery amount proposed.</p>								
Date		Approver Name			Approver Signature			

Report II: Summary of Sources and Uses of Funds - DA Account

Country					
Name of the Project:					
IFAD Instrument number:					
List other instruments if applicable					
For the Period:	<u>Starting Date</u>	To	<u>End Date</u>		
Currency:					
	Ref.	IFAD Instrument n. (add more columns for other instruments)			
Opening Balance Reporting Quarter: DA					
Opening balance Operating / Project account(s)					
Opening Balance Petty cash					
Opening Balance Total Funds available	I	-			
Funds Received	II				
Total Funds Available	III=I+II				
Uses of Funds by Category:		Actual expenditures Quarter	Actual expenditures YTD	Actual expenditures Inception To Date	
Category 1		-	-	-	
Category 2		-	-	-	
Category 3		-	-	-	
Category 4		-	-	-	
Category 5		-	-	-	
Category not yet identified/advance		-	-	-	
Total Funds Used	IV	-	-	-	
Funds Closing Balance (I minus II):	V=III-IV	-			
Represented by:					
DA Closing Balance					
Operating account Closing Balance					
Petty cash Closing Balance					
Uses of Funds by Component		Actual expenditures Quarter	Actual expenditures YTD	Actual expenditures Inception TD	
Component 1		-	-	-	
Component 2		-	-	-	
Component 3		-	-	-	
Total Funds Used (must equal II)	VI	-	-	-	
Note 1: this Form to include IFAD Financing & Other Financing that is administered by IFAD					
Note 2: Total IV must equal Total II					
Note 3: If figures are stated in the functional / reporting currency that is different from DA currency, please show equivalent figures in DA currency in ac					
Date	Approver Name			Approver Signature	

Report III: Designated Account Activity Statement		
Country		
Name of the Project:		
IFAD Instrument number:		
List other instruments if applicable		
For the Period:		Starting Date To End Date
Expressed in Designated Account Denomination Currency		
		Notes
PART I (Advances and Expenditure)		
1. Cumulative Advances by IFAD to the end of current Reporting period / quarter		Total advances received from IFAD (into the DA or equivalent in Govt. Treasury) to the end of current reporting period / Quarter. State last WA Number and Date through which advance was received
2. Cumulative Expenditure justified by IFAD since project start till the beginning of Reporting Quarter		Total Amount of eligible Project expenditure justified / Reported in IFRs till previous quarter end. This should <u>not</u> include direct payments / reimbursements to other accounts if any
3. Outstanding Advances to be accounted for (Line 1 minus Line 2)		This balancing figure should be matched to IFAD's Loan Account record
PART II (Designated Account - DA - Activity)		
4. DA balance at beginning of Reporting Quarter		Match to Report II (Ref. I)
5a. Advances disbursed by IFAD during the Reporting Quarter		To support this figure, please attach a List of WAs processed by IFAD.
5b. Add/Subtract cumulative adjustments, if any		This may be reconciling items, e.g. funds recalled or any refund of ineligible expenditures during the quarter, if any.
5c. Total amount of Advances received during current reporting Quarter, net of adjustments (Line 5a plus Line 5b)		
6. Outstanding Advances to be accounted for (Line 4 plus Line 5c)		This is the total amount to be justified / accounted for. This should normally be same as Line 3. If not, difference to be explained in notes below
7. DA balance at end of Reporting Quarter		Match to Report II (Ref. I)
8a. Expenditure incurred during the Reporting Quarter		Match to Report II (Ref. II)
8b. Add/Less Adjustments, if any		This may be reconciling items, e.g. WAs submitted but not yet justified / recorded by IFAD at quarter-end. Adjustment details to be noted below
8c. Total expenditure reported (net of adjustments) Expenditure (Line 8a plus 8b)		Match to Report II (Ref. II)
9. Total Advance accounted for: Add Line 7 and Line 8c		This should normally be same as Line 3 and Line 6. If not, difference to be explained in notes below
10. Difference if any (Line 6 minus Line 9)		This represents advance that has not yet been explained. This should ideally be zero. If not, explain reconciliation in note below
PART III (CASH FORECASTS and REPLENISHMENT REQUIREMENT)		
11. Net Forecast Spend from Designated Account		Match all figures to Report I
12. Replenishment Requirement for Subsequent 2 Reporting Quarters		Figures from Report I (REF V). This excludes planned direct payments and Reimbursements)
13. Advance Recovery, if any		Figures from Report Ref VII
14. Disbursement requested this quarter		Recovery will be processed during the 6 months preceding the Completion Date
		Give WA Reference Number
NOTES		
Explanation for item 5b (if not zero):		IFR, WA Ref
Explanation for item 8b (if not zero):		IFR, WA Ref
Explanation for item 10 (if not zero):		IFR, WA Ref
Note 1: IF the Reports II and II are in functional currency other than the DA currency, equivalent amounts in DA currency in this report and Report I should be prepared using forex rates on a FIFO basis		
Date		Approver Name

Report IV: Variance Analysis of Use of Funds by Quarter

Country				
Name of the Project:				
IFAD Instrument number:				
List other instruments if applicable				
Reporting period:				
Currency				
		IFAD Instrument (add more columns for other instruments)		
		Planned (AWPB)	Actual	Variance*
		A	B	C = A-B D=C/A (%)
Expenditure by Categories:				
Category 1				
Category 2				
Category 3				
Category 4				
TOTAL	I			
Expenditure by Components:				
Component 1				
Component 2				
Component 3				
Component 4				
TOTAL	II			
* Note 1: Provide reasons if the quarterly variances are equal to or more than 10%				
Note 2: Figures in column B (Actuals) should match corresponding figures in Report II and III				

Report V: Variance Analysis of Use of Funds - FY

Country				
Name of the Project:				
IFAD Instrument number:				
List other instruments if applicable				
Reporting period:				
Currency				

		IFAD Instrument (add more columns for other instruments)			
		Planned (AWPB)	Actual	Variance*	
		A	B	C = A-B	D=C/A (%)
Expenditure by Categories:					
	Category 2				
	Category 3				
	Category 4				
	Category 5				
TOTAL	I				
Expenditure by Components:					
	Component 2				
	Component 3				
	Component 4				
TOTAL	II				

* **Note: Provide reasons if the variances are equal to or more than 10%**

Note 2: Figures in column B (Actuals) should match corresponding figures in Report II and III

Note 3: Planned figures in Column A should be adjusted for phasing up to the reported quarter

Report VI: Variance Analysis of Use of Funds - Cumulative

Country				
Name of the Project:				
IFAD Instrument number:				
List other instruments if applicable				
Reporting period:				
Currency				

		IFAD Instrument (add more columns for other instruments)			
		Planned (AWPB)	Actual	Variance*	
		A	B	C = A-B	D=C/A (%)
Expenditure by Categories:					
	Category 2				
	Category 3				
	Category 4				
	Category 5				
TOTAL	I				
Expenditure by Components:					
	Component 2				
	Component 3				
	Component 4				
TOTAL	II				

* Note 1: Provide reasons if the variances are equal to or more than 10%

Note 2: Planned expenditure in Column A should be cumulative of all approved AWPBs to date, adjusted for phasing to 1

OPTIONAL								
NAME OF THE PROJECT IFAD LOAN/GRANT NUMBER Cash Forecast for Next 2 Reporting Periods Ending on _____								
Interim Financial Report No. ____								
Annex: I.B								
Disbursement Category	Ref	Government			Beneficiaries			
		Next Reporting Quarter	Following Reporting Quarter	Total for 2 Reporting Quarters	Next Reporting Quarter	Following Reporting Quarter	Total for 2 Reporting Quarters	
		A	B	C	D	E	F	
		Currency			Currency			
Forecast by Category:								
1	Category 1	-	-		-	-		
2	Category 2	-	-		-	-		
3	Category 3	-	-		-	-		
4	Category 4	-	-		-	-		
5	Category 5	-	-		-	-		
6	Category 6	-	-		-	-		
7	Category 7	-	-		-	-		
Total	I	-	-	-	-	-	-	
Forecast by Component:								
1	Component 1	-	-		-	-		
2	Component 2	-	-		-	-		
3	Component 3	-	-		-	-		
4	Component 4	-	-		-	-		
5	Component 5	-	-		-	-		
6	Component 6	-	-		-	-		
7	Component 7	-	-		-	-		
Total	II	-	-	-	-	-	-	
Total Expected payments	III	-	-	-	-	-	-	
Less Forecast: Inkind contributions	IV	-	-	-	-	-	-	
Forecast: Cash to be received	III - IV	-	-	-	-	-	-	

Appendix VII: Sample Periodic Progress report

Table 1: Financial performance per component and per financier

3. Financial performance by financier by component (USD '000)

Component	IFAD loan						IFAD grant						Government (Budget & tax)						Beneficiaries						Total						Total Allocation per design report	Revised allocation			
	Reporting period			Cumulative			Reporting period			Cumulative			Reporting period			Cumulative			Reporting period			Cumulative			Reporting period			Cumulative							
	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance					
Component 1																																			
Sub-component 1																																			
Sub-component 2																																			
Sub-component 3																																			
Component 2																																			
Component 3																																			
Component 4																																			
Total																																			

Table 2: Withdrawal Application Statement

2. Statement Of Expenditures Withdrawal Application Statement						
By category of Expenditures in Local Currency						
WA submitted to IFAD						
		WA		WA	WA	
		n..	WA n..	n..	n..	Total
Category	Category					
	Description					
1	AAAA	xx	xx	xx	xx	xx
2	BBBB	xx	xx	xx	xx	xx
3	CCCC	xx	xx	xx	xx	xx
<i>Total</i>		xx	xx	xx	xx	
In USD equiv/		xx	xx	xx	xx	
Rejected from IFAD		xx	xx	xx	xx	
<i>Net Reimbursed</i>		xx	xx	xx	xx	
WA pending submission to IFAD						
		WA		WA	WA	
		n..	WA n..	n..	n..	
Category	Category					
	Description					
1	AAAA	xx	xx	xx	xx	
2	BBBB	xx	xx	xx	xx	
3	CCCC	xx	xx	xx	xx	
<i>Total</i>		xx	xx	xx	xx	

Withdrawal applications are submitted for reimbursement to IFAD using the historical

exchange rate of the transfers to the Operating Account.

Expenditures partially or totally rejected by IFAD (if any) should be detailed here.

This statement should be reconciled with the Statement of Receipts and Payments

Table 3: Signed Contract Listing

3. Signed Contract Listing

Reporting period:		Contract Information							
Disbursement Category	Contract Description	Contract Start	Contract End	Supplier/Contractor Name	Contract No.	Total Contract Value	Total Contract Amount Invoiced to date	Total Disbursed on Contract	Total Undisbursed Amount
Description									
Category 1: Works									
Category 2: Equipment, goods And Vehicles									
Category 3: Consultancy services									

Category 4									
Total									

Table 4: Physical Progress Report

Table 4: Physical Progress Report

Description of activities		Progress and Cost					Plan to completion			
Category	Project activity by component/Sub-component	Physical Progress to date		Cost to date			Revised		Original	
		Actual	Planned	Actual	Planned	Actual as % of Plan	Total cost	Completion date	Total cost	Completion date
1. Works	2. Irrigation Infrastructure									
	Road infrastructure									
	Road works									
	Design									
	Civil works -site clearance									
	Civil works - construction									
	Civil works finishing									

3. Consultancy services	1 a. Rural Market innovation strategy				
4. Training and Technical assistance	feasibility studies market survey				
5. Credit line	1c. Women Capacity Building Workshops Training courses 3. Rural Finance Micro Credit Grants				

Appendix VIII: Fixed Asset Register

Fixed Asset Register

ASSET REF. NO.	ASSET DESCRIPTION	COMPONENT	FINANCING SOURCE	BENEFICIARY AGENCY	LOCATION	ASSIGNED TO	TAG NUMBER	SUPPLIER NAME	PMT/INV. REFERENCE	DATE OF PURCHASE	DATE OF RECEIPT	PURCHASE VALUE	REMARKS

Total													

Appendix IX A: Petty Cash Request Form

Date: _____

Requested by : _____

Name

Mode of payment

Signature

✕ Reimbursement

✕ Advance

Description of purchases (goods/services)	Unit price	Quantity	Total cost**	Budget / Activity code	Explanation / Comments
TOTAL AMOUNT*					

Approved by
by FA

Processed by FM

Payment received

* Total amount cannot exceed xxxxx.

** Attach supporting document (invoice, receipt, etc.).

Appendix IX B: Petty Cash Reconciliation Form

Project _____ **Date** _____ **of** _____ **reconciliation**

Part i. Petty cash reconciliation

Petty cash balance brought forward (a) _____
 Replenishments during the current month (b) _____
 Total petty cash balance (c = a + b) _____
 Disbursements during the current month (d) _____
 Petty cash book balance (e = c - d) _____
 Cash count balance (f) – see part ii. below _____
 Difference (G = E - F) _____

Explanation Of Difference

Part II - Cash Count

Description	Quantity	Total amount
bank notes		
500		
1 000		
2 000		
coins		
10		
20		
50		
total in local currency		

Counted/reconciled by (FA) _____ Reviewed by (FM) _____
 Date _____

Appendix X B: Vehicle History Record

Vehicle registration number _____ **Assigned driver** _____

Date	Repairs			Service & maintenance			Insurance			Fitness tests	
	Description of repair	Garage	Cost	Description of service	Garage	Cost	Type	Period covered	Cost	Checked by	Cost

Report accidents in the space below, providing all relevant details for each occurrence:

Date:

Place:

Name _____ of _____ driver:

Circumstances:

Damage _____ to _____ PMU _____ vehicle:

Damage _____ to _____ other _____ vehicles:

Injuries _____ (indicate name of victims and describe injuries):

Insurance settlement:

Appendix XI: Required Aide Memoire tables for IFAD Supervision missions

Table 1: Cumulative expenditures by component and Financier -as at DD/MM/YYYY (USD '000)

	IFAD Loan	IFAD Grant	Benef .	Governme nt	Tota l
1. Rural Market Development					
1 a. Rural Market innovation strategy					
1b. Rural Market infrastructure					
1c. Women Capacity Building					
2. Irrigation Infrastructure					
3. Rural Finance					
4. Programme Management					
Total					

Table 2: Budgeted Expenditures and Performance against previous year's AWPB (USD '000)

	IFAD Loan	IFAD Grant	Benef .	Governme nt	Tota l	Financial Performanc e (%))
1. Rural Market Development						
1 a. Rural Market innovation strategy						
1b. Rural Market infrastructure						
1c. Women Capacity Building						

- 2. Irrigation Infrastructure
- 3. Rural Finance
- 4. Programme Management

Total

Table 3A: Financial performance by financier - as at DD/MM/YYYY

Financier	Approval (USD '000)	Current (USD '000)	Disbursements (USD '000)	Per cent disbursed
IFAD loan				
Government				
Private sector				
Beneficiaries				
Total				

Table 3 B. Financial performance by financier by component - as at DD/MM/YYYY (USD)

	IFAD Loan			Government			Private sector			Beneficiaries			Total		
	Ap pr.	Act ual	%	Ap pr.	Actua l	%	Ap pr.	Act ual	%	Ap pr.	Act ual	%	Ap pr.	Act ual	%
1. Supporting inclusive rural development															
a. Improving Chanyefupin model															
b. Stimulating entrepreneurship															

c. Improv g access to finance					
a. Improv g infrastru cture climate resilienc e					
b. Improv g rural infrastru cture					
4. Program me Manage ment					
TOTAL					

TABLE 3 C: Expenditures by category - as at DD/MM/YYYY (USD)

Category description	Original Allocation	Revised Allocation	Expenditures	W/A pending	Balance	Per cent Spent
I. Civil Works						
II. Equipment, Goods and vehicles						
III. Technical assistance and Studies						
IV. Training and Workshops						
V. Credit line						
VI. Incremental Operating Costs						
Unallocated						
Total						

Appendix XII: Sample recovery plan

**Recovery Plan
Designated Account**

IFAD Loan No.:		IFAD Loan Amount (SDR)	20 000 000.00
Project Completion Date:	31-Dec-12	Loan Closing Date:	30-Jun-13

Particulars Reporting Period	WA No.	Date	US \$	EUR	SDR	Unjustified balance USD	SDR
Authorized Allocation	1	18/01/2006	\$ 250 000.00	€ -	172 648.51	0.00	(77 351.49)
				€ -	172 648.51		
				0.00	#VALUE!		
			Exchange Rate:				

Justification:

Ref. No.	WA No.	Date	Estimated WA value (SP)	Estimated WA value (USD)	Proposed Recovery %	Recovery Amount (USD)	Commulative Recovery Amount (USD)	Commulative Unjustified balance (USD)
1	40	21-Feb-12		111 832.56	45%	50 324.65	50 324.65	(50 324.65)
2	41	3-Mar-12		72 685.11	35%	25 439.79	75 764.44	(75 764.44)
3	42	5-May-12		74 685.11	35%	26 139.79	101 904.23	(101 904.23)
4	43	7-Jul-12		70 885.11	42%	29 771.75	131 675.98	(131 675.98)
5	44	5-Sep-12		64 885.11	40%	25 954.04	157 630.02	(157 630.02)
6	45	31-Dec-12		82 627.66	80%	66 102.13	223 732.15	(223 732.15)
7	46	10-Jun-13		26 065.11	100%	26 267.85	250 000.00	(250 000.00)
8								
	TOTAL				503 665.77 USD	250 000.00 USD		

In accordance with IFAD procedures, any amount unjustified at the time of loan closing date will be promptly refunded to IFAD.

Prepared by: _____ Date: 15-Oct-11

Confirmed by: _____ Date: _____

Appendix XIII: Designated account reconciliation statement

5 A. Designated Account Reconciliation Statement																	
Designated Account No:																	
Bank Name:																	
1. Total Advanced by IFAD	USD																
2. Less total amount recovered by IFAD	USD																
3. Equals present outstanding amount advanced to the designated account (line 1 less line 2)	USD																
<hr/>																	
4. Balance of designated account per attached bank statements as of (Date: day/month/year)	USD																
5. Plus balance of the project account(s) (listed separately)	USD																
Plus balance of sub accounts (listed separately)	USD																
Plus balance of Cash in Hand	USD																
Total of Bank Balances (designated A/C, PA, SUB accounts& cash in hand balance) (line 4+line 5)	USD																
6. Plus total amount claimed in this WA no.	USD																
7. Plus total amount withdrawn from the designated/PA/Grant account and not yet claimed for replenishment) or WAs pending submission	USD																
8. Plus amounts claimed in previous applications but not yet created at the date of bank statement and/or claimed after date of bank statement	USD																
<hr/>																	
<table border="1"> <thead> <tr> <th>Application No.</th> <th>Date</th> <th>USD</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>\$</td> <td></td> </tr> <tr> <td></td> <td></td> <td>\$</td> <td></td> </tr> <tr> <td></td> <td></td> <td>\$</td> <td></td> </tr> </tbody> </table>	Application No.	Date	USD	Amount			\$				\$				\$		
Application No.	Date	USD	Amount														
		\$															
		\$															
		\$															
9. Minus Interest earned (to be completed. If zero, please enter zero)	USD																
10. Total Advance accounted for (line 5 through line 9)	USD																
11. Explanation of any difference between the totals appearing in Lines 3 and 10	USD																

e.g.	Non eligible amount to be refunded to the designated account	USD
		<hr/>
e.g.	calculation errors in application of percentage financing	USD
		<hr/>
e.g.	counterpart financial resources to be reimbursed	USD
		<hr/>
e.g.	cheques not yet cleared/presented to Bank	USD
		<hr/>
12 DATE	<hr/>	SIGNATURE
		<hr/>
		Name in full
		<hr/>
		Title in Full
		<hr/>

Appendix XIV: Checklist for Withdrawal Application

XXX
Loan/Grant No.

XXX
WA No.

FORM 100 APPLICATION FOR WITHDRAWAL	Yes/No
1. Sequential numbering of withdrawal application	
2. Withdrawal application amount tallies with sequentially numbered summary sheets	
3. Categories/subcategories charged according to schedule of financing agreement	
4. Percentage of financing applicable for each category or subcategory	
5. Availability of funds in categories and the overall financing amount	
6. Currency of payment	
7. Completeness and accuracy of banking instructions	
8. Complete name and address of correspondent bank	
9. WA is signed by authorized representative	
10. Expenditure summary sheet by category attached	
STATEMENT OF EXPENDITURE	
1. Eligibility of expenditures claimed	
(a) Within SOE financial ceiling	
(b) Expenditures under specific category [-----] eligibility	
2. Form 102 signed by designated Project Accountant, Project Director, Authorized Representative	
3. Form 102 supported by signed Form 101 for items reported in 2, but over the financial ceiling	
DESIGNATED ACCOUNT REPLENISHMENT REQUESTS	
1. Amount within ceiling figure agreed as reasonable limit [---US\$---]; per AWP/B period	
2. Amount at least equal to 30 percent of the advance or 3 months of expenditure; []	
3. Amount agreed sufficient to cover a specific reporting period (revolving fund option)	
4. Exchange rate used	
5. Completeness of designated account banking and account details	
6. Enclosed designated account reconciliation and bank statements	
SUPPORTING DOCUMENTATION (attached when/if required)	
1. Copy of contract	
2. Copy of invoice, certified by Project Director	
3. Copy of bank guarantee and performance guarantee (for advance payment)	
4. Copy of delivery receipt	
5. Copy of evidence of payment	
6. Completed Form 101	
7. Completed Form 102 (A or B) including reference to AWPB, name of the supplier, invoice/contract number, total contract value, date of payment, list of supporting documentation, and payment reference (bank/cash)	
PROCUREMENT	
1. Copy of no objection(s) provided by FAD (attached)	
2. Copy of Contract Payment Monitoring Form(s) duly signed (attached) [-----] Copy of Register of contracts with reference to the procurement plan - duly signed (attached) []	
COMPLIANCE WITH CONDITION(S) FOR DISBURSEMENT	
1. In accordance with terms in Section E of the Financing Agreement	
2. In accordance with terms in the letter to the Borrower/Recipient	
EXPENDITURE INCURRED/COMMITTED BEFORE PROJECT COMPLETION DATE	
1. Expenditure verified as eligible:	
(a) Contract signed before project completion date	
(b) Goods delivered before project completion date	
(c) Services completed and/or rendered before project completion date	

Remarks:

Prepared by: Project Accountant

Dated: xx/xx/xx

Certified by: Project Director

Dated: xx/xx/xx

Appendix XV: Sample Project Financial Statements

Project Name.....
Implementing Agency.....
IFAD Loan/Grant Number.....

PROJECT FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 200X

Prepared in accordance with the Cash Basis of Accounting Method of the International Public Sector Accounting Standards (IPSAS)

PROJECT NAME AND NUMBER
FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 200X

CONTENTS	PAGE
Project Information and performance	1
Statement of project management responsibilities ²	
Report of the independent auditor	3
Statement of cash receipts and payments (by category)	4
Statement of cash receipts and payments (by component)	5
Statement of comparative budget and actual amount	6
Statement of Special Account movements	7
Statement of Special Account Reconciliations	8
Withdrawal Application Statement	9
Notes to the Financial Statements	10-
11	

PROJECT NAME AND NUMBER

PROJECT INFORMATION AND PERFORMANCE

PROJECT NAME AND NUMBER

- **Institutional Details/Information:** Implementing agency, status, location, names, account numbers and address of bankers (Special and Project accounts) name and address of independent auditors
- **Members of the Project Coordinating Unit:** Names and roles
- **Background Information on the Project:** Source of financing: size of Loan/Grant(s), effective and closing date(s)
- **Project Objectives:** As per Design Completion/Appraisal Report
- **Project Costs:** By component and category of expenditures as per Financing Agreement and Design Completion/Appraisal Report
- **Summary of Performance:** Physical progresses as per Progress/Supervision Reports

PROJECT NAME AND NUMBER

STATEMENT OF ACCOUNTING OFFICER AND PROJECT COORDINATOR'S RESPONSIBILITIES

PROJECT NAME AND NUMBER
STATEMENT OF RECEIPTS AND PAYMENTS (BY CATEGORY OF EXPENDITURES)
FOR THE YEAR ENDED DECEMBER 31, 200X

		Notes	200X	200X-1	Cumulative to date
			Local currency	Local currency	Local currency
	Balance B/F	4	XXX	XXX	
FINANCING					
IFAD Credit					
	Initial Deposit				XXX
	Replenishments to SA		XXX	XXX	XXX
	IFAD Direct Payments	5	XXX	XXX	XXX
	Government Funds	6	XXX	XXX	XXX
	Other Donors	7			
	Other Receipts	8			
	TOTAL FINANCING		XXX	XXX	XXX
PROJECT EXPENDITURES:					
(BY CATEGORY OF EXPENDITURES)					
Cat	IFAD CREDIT				
1	AAA	9	XXX	XXX	XXX
2	BBB	9	XXX	XXX	XXX
3	CCC		XXX	XXX	XXX
4	DDD		XXX	XXX	XXX
5	EEE		XXX	XXX	XXX
6	GGG		XXX	XXX	XXX
7	HHH		XXX	XXX	XXX
8	LLL		XXX	XXX	XXX
			XXX	XXX	XXX
	Government Funds				
1	AAA		XXX	XXX	XXX
2	BBB		XXX	XXX	XXX
	TOTAL		XXX	XXX	XXX
	TOTAL PROJECT EXPENDITURES		XXX	XXX	XXX
	BALANCE C/F	4	XXX	XXX	XXX

PROJECT NAME AND NUMBER
STATEMENT OF RECEIPTS AND PAYMENTS (BY COMPONENT)
FOR THE YEAR ENDED DECEMBER 31, 200X

		Notes	200X	200X-1	Cumulative to date
			Local currenc y XXX	Local currenc y XXX	Local currency
Balance B/F FINANCING		4	XXX	XXX	
IFAD Credit					
	Initial Deposit				XXX
	Replenishments to SA		XXX	XXX	XXX
	IFAD Direct Payments	5	XXX	XXX	XXX
	Government Funds	6	XXX	XXX	XXX
	Other Donors	7			
	Other Receipts	8			
TOTAL FINANCING			XXX	XXX	XXX
 PROJECT EXPENDITURES: (BY COMPONENT)					
Comp	IFAD CREDIT				
A	AAA		XXX	XXX	XXX
B	BBB		XXX	XXX	XXX
C	CCC		XXX	XXX	XXX
			XXX	XXX	XXX
Government Funds					
A	AAA		XXX	XXX	XXX
B	BBB		XXX	XXX	XXX
	TOTAL		XXX	XXX	XXX
TOTAL PROJECT EXPENDITURES			XXX	XXX	XXX
BALANCE C/F		4	XXX	XXX	XXX

PROJECT NAME AND NUMBER
STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS
FOR THE YEAR ENDED DECEMBER 31, 200X

		200X Budget	200X Actual	Variance
	Notes	Local currency XXX	Local currency XXX	Local currency XXX
FINANCING				
IFAD Credit				
	Replenishments to SA	XXX	XXX	XXX
	IFAD Direct Payments	XXX	XXX	XXX
	Government Funds	XXX	XXX	XXX
TOTAL FINANCING		<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
PROJECT EXPENDITURES: (BY CATEGORY OF EXPENDITURES)				
Cat	IFAD CREDIT			
1	AAA	XXX	XXX	XXX
2	BBB	XXX	XXX	XXX
3	CCC	XXX	XXX	XXX
4	DDD	XXX	XXX	XXX
5	EEE	XXX	XXX	XXX
6	GGG	XXX	XXX	XXX
7	HHH	XXX	XXX	XXX
8	LLL	XXX	XXX	XXX
		<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
Government Funds				
1	AAA	XXX	XXX	XXX
2	BBB	XXX	XXX	XXX
	TOTAL	<u>XXX</u>	<u>XXX</u>	<u>XXX</u>
TOTAL PROJECT EXPENDITURES		XXX	XXX	XXX
Surplus/Deficit for the period		XXX	XXX	XXX

The excess/deficit of actual expenditures over the Budget of X% was due to....

**PROJECT NAME AND NUMBER
STATEMENT OF SPECIAL ACCOUNT ACTIVITIES
FOR THE YEAR ENDED DECEMBER 31, 200X**

Account No: _____
Bank: _____
Address: _____

		USD (or as otherwise denominated)	Local Currency Equiv
Opening Balance	Notes	XXX	XXX
Add:			
IFAD Replenishments:			
Date	WA No	XXX	
Date	WA No	XXX	
		<u>XXX</u>	
Bank Interests		XXX	XXX
Total		<u>XXX</u>	<u>XXX</u>
Deduct:			
Transfers to Operating Accounts:			
Date		XXX	
Date		XXX	
		<u>XXX</u>	
Bank Charges		XXX	XXX
Exchange Rate Difference		XXX	XXX
Closing Balance as at 31/12/200X		<u>XXX</u>	<u>XXX</u>

(as per Bank Statement)

Include reconciliation with IFAD records

**PROJECT NAME AND NUMBER
STATEMENT OF SPECIAL ACCOUNT RECONCILIATION
FOR THE YEAR ENDED DECEMBER 31, 200X**

Account No: _____
Bank: _____
Address: _____

		USD (or as otherwise denominated)	Local Currency Equiv
		Notes	
1	Initial Deposit	XXXX	XXXX
2	Less amount(s) recovered:	XXXX	XXXX
3	Outstanding Amount advanced	XXXX	XXXX
Represented by:			
4	Special Account Balance as at 31/12/200X	XXXX	XXXX
5	Plus amounts claimed but not yet credited as at 31/12/200X:		
	WA	XXX	Date
	WA	XXX	Date
		XXX	
		XXXX	XXXX
Plus amounts withdrawan not yet claimed, composed of:			
Was Prepared not yet submitted:			
	WA	XXX	
	WA	XXX	
		XXX	
	Was not yet prepared:	XXX	
6	Total amount withdrawan not yet claimed	XXXX	XXXX
7	Less Interest earned and/or plus Bank charges (if included in the Special Account)	XXXX	XXXX
8	Total Special Account Advance as at 31/12/200X	XXXX	XXXX
	Difference between Line 3 and line 8	XXXX	XXXX
Notes:			

PROJECT NAME AND NUMBER
SOEs-WITHDRAWAL APPLICATION STATEMENT
FOR THE YEAR ENDED DECEMBER 31, 200X
by Category of Expenditures in Local Currency

Notes	Category description	Category description	Total	In USD Equivalent	Rejected from IFAD	Net Reimbursed
	1	2				
WA No:						
	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
Total						XXX
WA Pending for Submission:						
WA No:	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
						XXX
TOTAL	XXX	XXX	XXX	XXX	XXX	XXX

Withdrawal Applications are submitted for reimbursement to IFAD using the historical exchange rate of the transfers to the Operating Account

Expenditures rejected by IFAD (if any) should be detailed here.

This statement should be reconciled with the Statement of Receipts and Payments and include reconciliation with IFAD records

PROJECT NAME AND NUMBER

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED DECEMBER 31, 200X

1. FINANCIAL REPORTING UNDER INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARDS (IPSAS) Cash basis of accounting,

In accordance with International Public Sector Accounting Standards (IPSAS) Cash basis of accounting, notes to the financial statements of an entity should:

Present any information about the basis of preparation of the financial statements and the specific accounting policies selected and applied for significant transactions and other events, and

- Provide additional information **which is not presented on the face of the financial statements but is necessary for a fair presentation of the entity's cash receipts, cash payments, cash balances and other statements as statement of financial position**

2 SIGNIFICANT ACCOUNTING POLICIES

The principle accounting policies adopted in the preparation of these financial statements are set out below:

A Basis of Preparation

The financial statements have been prepared in accordance with International Public Sector Accounting Standards (IPSAS) with particular emphasis on Cash Basis Financial Reporting under the Cash Basis of Accounting

B Cash Basis of Accounting

The cash basis of accounting recognizes transactions and events only when cash is received or paid by the entity.

C Foreign Currency Transactions

Cash receipts and payments arising from transactions in a foreign currency are recorded in the financial statements using the average rate of exchange. Cash balances held in foreign currency are reported using the closing rate. Gains/Losses on foreign currency transactions/balances are dealt within the Statement of Special Account Activities.

3 BUDGET

The budget is developed on the same accounting basis (cash basis), same classification and for the same period as the financial statements. Material variances (above XXX) have been explained as notes to the financial statements

4 CASH / FUND BALANCES

Reconciliation

	200X	200X-1
	Loc	Loc
	currency	currency
Cash Accounts	XXX	XXX
Advances	XXX	XXX
	XXX	XXX

4-a CASH DETAILS

200X	200X-1
Loc currency	Loc currency

A/c No _____ Project Operating Account	XXX	XXX
A/c No _____ IFAD Designated Account (as per DA Statement)	XXX	XXX
Petty cash	XXX	XXX
	<hr/>	<hr/>
	XXX	XXX

5 DIRECT PAYMENTS

These payments were made directly by IFAD from the Loan account to the specified supplier/service provider in accordance with the terms and conditions of the financing Agreement

Include here details of direct payments

WA, Date, currency and amount received, amount in local currency

6 GOVERNMENT COUNTERPART FUNDS

Details here. Cumulative contributions, yearly contributions (compared to budget). Include details of counterpart contributions as tax exemption.

Include details of tax treatments.

7 OTHER DONOR FUNDS

200X	200X-1
Loc currency	Loc currency

List of Donors	XXX	XXX
	XXX	XXX
	XXX	XXX
	<hr/>	<hr/>
	XXX	XXX

Add details of cumulative and expected contributions

8 OTHER RECEIPTS

200X	200X-1
Loc currency	Loc currency

Interest Income	XXX	XXX
other income (specify)	XXX	XXX
	XXX	XXX
	<hr/>	<hr/>
	XXX	XXX

9 NON-CURRENT ASSETS

*Financial Statement
Currency*

	Cat 1 - Infrastructure		Cat 2 Vehicles		Cat 3- Equipment	
	200X	200X-1	200X	200X-1	200X	200X-1
Opening Balance	XXX	XXX	XXX	XXX	XXX	XXX
Additions (Statement of Receipts and Payments)	XXX	XXX	XXX	XXX	XXX	XXX
Disposals	XXX	XXX	XXX	XXX	XXX	XXX
Closing Balance	XXX	XXX	XXX	XXX	XXX	XXX

This schedule includes all assets acquired from the commencement of the Project. These assets are stated at cost. Existence and beneficial ownership to be verified by the auditors.

Apart of the summary schedule, details schedules for yearly changes to be included.

10 YEARLY PROCUREMENTS

Include here a list of the yearly procurements including methods.

China

Hunan Green Development Project

Project Design Report

Annex 9: Integrated Project Risk Matrix (IPRM)

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	Low	Low
<i>Political Commitment</i>		<i>No risk envisaged - not applicable</i>
<i>Governance</i>	<i>Low</i>	<i>Low</i>
<i>Macroeconomic</i>	<i>Low</i>	<i>Low</i>
<i>Fragility and Security</i>	<i>Moderate</i>	<i>Moderate</i>
Sector Strategies and Policies	Moderate	Moderate
<i>Policy alignment</i>	<i>Low</i>	<i>Low</i>
<i>Policy Development and Implementation</i>	<i>Moderate</i>	<i>Moderate</i>
Environment and Climate Context	Moderate	Low
<i>Project vulnerability to environmental conditions</i>	<i>Moderate</i>	<i>Low</i>
<i>Project vulnerability to climate change impacts</i>	<i>Moderate</i>	<i>Low</i>
Project Scope	Moderate	Moderate
<i>Project Relevance</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Technical Soundness</i>	<i>Moderate</i>	<i>Moderate</i>
Institutional Capacity for Implementation and Sustainability	Moderate	Low
<i>Implementation Arrangements</i>	<i>Moderate</i>	<i>Low</i>
<i>Monitoring and Evaluation Arrangements</i>	<i>Moderate</i>	<i>Low</i>
Project Financial Management	Moderate	Moderate
<i>Project Organization and Staffing</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Budgeting</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Project Funds Flow/Disbursement Arrangements</i>	<i>Substantial</i>	<i>Substantial</i>
<i>Project Internal Controls</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Project Accounting and Financial Reporting</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Project External Audit</i>	<i>Moderate</i>	<i>Moderate</i>
Project Procurement	Moderate	Moderate
<i>Legal and Regulatory Framework</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Accountability and Transparency</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Capability in Public Procurement</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Public Procurement Processes</i>	<i>Moderate</i>	<i>Moderate</i>
Environment, Social and Climate Impact	Moderate	Low
<i>Biodiversity Conservation</i>	<i>Moderate</i>	<i>Low</i>
<i>Resource Efficiency and Pollution Prevention</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Cultural Heritage</i>	<i>Low</i>	<i>Low</i>
<i>Indigenous People</i>	<i>Moderate</i>	<i>Low</i>
<i>Labour and Working Conditions</i>	<i>Moderate</i>	<i>Low</i>
<i>Community health, safety and security</i>	<i>Moderate</i>	<i>Low</i>
<i>Physical and Economic Resettlement</i>	<i>Moderate</i>	<i>Low</i>
<i>Greenhouse Gas Emissions</i>	<i>Low</i>	<i>Low</i>

Risk Category / Subcategory	Inherent risk	Residual risk
<i>Vulnerability of target populations and ecosystems to climate variability and hazards</i>	<i>Moderate</i>	<i>Low</i>
Stakeholders	Moderate	Moderate
<i>Stakeholder Engagement/Coordination</i>	<i>Moderate</i>	<i>Moderate</i>
<i>Stakeholder Grievances</i>	<i>Moderate</i>	<i>Moderate</i>
Overall	Moderate	Moderate

Country Context	Low	Low
Political Commitment		No risk envisaged - not applicable
<p>There is strong political commitment of both central and local governments to the project goals/objectives in promoting rural revitalization through thriving agro-industries to benefit the smallholders and rural economy, while maintaining eco-environmental sustainability and promoting food security, nutrition and health for the people. Rural revitalization envisions key milestones for 2035 and 2050, current and next Five Year Plan (2026-2030) will surely adhere to the rural revitalization strategy, these and the overall green development strategy is the overarching government strategies for sustainable development that the project will contribute to. China is also committed to carbon peak by 2030 and neutral 2050. Necessary policies, various resources, and institutional performances are geared at the provincial and county levels towards aligning with these strategic goals and directions. No. 1 document of 2023 continues to give spotlight to rural development and rural revitalization support for disadvantaged areas and households will continue for the next 5 years. Meanwhile, there is strong stability and continuity of political party and government leadership and strategies, the current leadership just embarked on a new term. Despite the one party system being seen as not ideal from outsiders, the government and the people have confidence and trust in the current political system and commitment of the ruling party. During the project life of just 6 years, no major risks are foreseen in terms of political commitment. Counterpart financing for IFAD project has always been adequate in recent projects as result of the targeted poverty reduction strategy and rural revitalization strategy.</p>		
Governance	Low	Low
<p>Risk:</p> <p>Overall governance at the relevant levels (primary province and county) is strong. There are relevant and adequate rules and procedures guiding the planning and budgeting, management of finance, procurement, staff and institutional performance and accountability, fraud and corruption prevention and conviction. Dedicated management arrangements will be made at both provincial and county level for IFI funded development projects, where government attaches higher emphasis in accountability and performances. Project audit and performance M&E are commissioned by national ministries for almost all loan funded projects. Government institutions have gained experience from poverty eradication program and there is generally strong planning and implementation capacity at all levels. The ongoing rural revitalization strategy clearly aims to enhance rural governance. Combating corruption has been given very emphasis by President Xi himself since he took power, and stringent measures and policies were put into places.</p> <p>Risks are likely with regard to performance and accountability of staff in relevant institutions in the county level, which may result in to inefficiencies and delays of processes and certain compliances.</p>	Low	Low
Mitigations:		
<p>The Project Leading Groups at county level and Inter-agency coordinating mechanism at provincial level will be established to supervise the performance of institutions and key individuals of the project, as well as the key indicators and important milestones on project performance, through biannual review exercises.</p>		

Macroeconomic	Low	Low
<p>Risk:</p> <p>China is on steady recovery path from the pandemic with forecasted economic growth rebound to 5.6% in 2023, with removal of mobility and surge in consumer spending in services. The country is relatively insulated from global food and energy market shocks, maintaining a modest inflation level. Monetary policy continues to support the recovery and ensure adequate liquidity. Fiscal policy continues to provide support to the recovery through tax cuts and exemptions. Growth momentum however remains fragile and dependent on continued policy support. Sluggish income growth, lingering uncertainty about the recovery in the labor market (e.g. youth unemployment rate at 20.4% in April 2023) and high household saving could hold back consumer spending. Externally, uncertain global growth path, tightening in financial conditions and heightened geopolitical tensions are major risks for macroeconomic development. Weak global demand also tempers export growth but shall recover when demand rebounds. The market performance of HGDP value chains can be influenced by overall economic situation.</p>	Low	Low
<p>Mitigations:</p> <p>The project will adopt an enterprises led approach in developing the value chain, an inclusive business development component will specifically energize the private sector in enhancing their market performance and productivity while outreaching to rural beneficiaries including youth and women to increase their income level from specialised production. Proper business and investment assessment taking into consideration of SECAP requirement will be part of the process in reviewing/approving investment to ensure economic viability as well as social and environmental sustainability.</p>		
Fragility and Security	Moderate	Moderate
<p>Risk:</p> <p>China continues to improve in its fragility rating. No major fragile vulnerabilities are identified. Emerging risks as part of the pandemic consequences are: a) higher youth unemployment rate; b) persistent income inequality among population groups; c) high non-financial sector debt at all-time high of 287% of 2022 GDP. Aging and population peak may have long-term impact to the fragility of the country.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>(1) Tailored measures by government to promote youth employment (vocational training, loan subsidy, employment services etc.) ; 2) Expanding coverage and benefit adequacy of social safety nets; 3) further liberalize hukou system and deploy fiscal tools</p>		
Sector Strategies and Policies	Moderate	Moderate
Policy alignment	Low	Low

<p>Risk:</p> <p>The project is well aligned with the government strategies and policies relating to green development, rural revitalization and food security. The project focus on fostering smallholder inclusivity in rural transformation and green development while also ensuring food security and consolidating poverty eradication achievements, which will contribute to sustainable rural transformation. Governments expects IFAD project to add value by demonstrating innovative ideas and practices that can contribute to the consolidation of no poverty and no hunger, and food security as part of the ongoing rural transformation in the country. The project will promote private sector led business models contributing to sustainable rural transformation, in addition, sustainable benefit generation for and sharing with vulnerable groups of the population, role of women and youth as well as thriving private sector and farmer organizations etc.. are also at the core of the government policies for rural transformation.</p> <p>At the grassroot level however, the practices of pro-poor strategies might be not totally aligned with IFAD's new targeting policy in some cases when leading industries and better/scaled performers tend to be given more focus, alignment with IFAD desired practices and priorities in social inclusion and environmental requirements may still require external facilitation to be satisfactory and conducive for project achievements.</p>	Low	Low
<p>Mitigations:</p> <p>Targeting strategy and ESCMP requirements and mitigation actions will be elaborated in the PIM for followup compliance. Training and follow up support at Start-up and during implementation will be enhanced to enhance comprehension and buy-in of project stakeholders to these strategies/requirements.</p>		
<p>Policy Development and Implementation</p>	Moderate	Moderate
<p>Risk:</p> <p>Government's strategies and policies, especially those relating to modernization and rural revitalization, are highly responsive to the needs of the rural people and visionary in making rural areas more attractive places for people to live. Despite favourable and upper level government policies, the implementation of policies is subject to the absorbing capacity and commitment of local level governments, especially in outlining the specific implementing strategies, measures and actions. In less developed areas, the limitation in capacity of local government and staff may restrict the full attainment of policy expectations and results.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>Institutional capacity building, demonstration, enhanced monitoring and evaluation plus learning through project implementation will helpful to mitigate policy implementation risks. Having an oversight and coordinating mechanism at county and provincial level will also be conducive for policy implementation in favor of the project.</p>		
<p>Environment and Climate Context</p>	Moderate	Low
<p>Project vulnerability to environmental conditions</p>	Moderate	Low
<p>Risk:</p> <p>The project involves agroforestry plantation in mountain areas and will have limited sensitivity to environmental conditions. Soil and water erosion are always a risk in any agricultural project, notably in mountain but appear limited in the area and well regulated. In addition, the cultivation of bamboo forests and oil tea pays attention and contribute to soil conservation as forestry planting also helps to improve water yield and ecological carbon sequestration, thereby reducing vulnerability to such erosion. The resources involved in the project are mostly renewable, post-production also does not generate excessive residues/waste that may have negative impact on environment. Civil work and infrastructure are of relative limited scale and will be subject to government strong safeguards</p>	Moderate	Low

<p>Mitigations:</p> <p>The project has formulated a detailed ESCMF and ESCMP reviewing government own safeguards and additional specific measures including several to mitigate vulnerability to environmental conditions: i) implementing government water and soil conservation stringent policy and ensure that erosion control and drainage measures will be part of the process and contracting requirements for all infrastructures. If large roads are built in sensitive areas, impact assessment will be conducted; ii) the passageways which are built on the plantations serve the dual purposes of transporting the bamboos down the hills and act as fire break, thereby reducing vulnerability to wild fire. iii) Camellia Oleifera new plantation will be on used or degraded land thereby also positively contributing to reduce vulnerability. iv) The medicinal plants will be planted in the shade of trees, in commercial forest, thereby with reduced erosion risks thanks to trees ; The project will promote integrated pest and input management to ensure sustainable input management/mitigate any pollution risks.</p>		
<p>Project vulnerability to climate change impacts</p>	Moderate	Low
<p>Risk:</p> <p>The project area and involved agroforestry crops are exposed to climate-related hazards including drought, flooding, high temperature, and low temperature disasters, which are becoming more frequent and of sever in magnitude. However, the project is not situated in the most exposed and fragile area as it is in hilly areas rather than mountains (so no steep slope and elevation below 500 m as per China definition). The occurrence of weather-related hazards affecting crops, forestry and biodiversity is low. The population is not too sensitive as it is not mainly depending on agricultural income, poverty is low with strong social protection mechanisms and enabling environment. Finally, adaptive capacities are strong coming from government, community and farmers levels, including pre-disaster warning, post disaster support and agricultural insurance (supported by the project) that are widely carried out in the project area.</p>	Moderate	Low
<p>Mitigations:</p> <p>a).Focus on key areas and vulnerable populations, to apply hazard identification, monitoring, early warning, and emergency preparedness for areas affected by natural disasters; b) introduce efficient irrigation facilities, water storage and water monitoring systems in areas where the project support tree crops sensitive to drought situation and consider climate when screening relevant tree/crop varieties c) train water user associations in managing climate risks; d) explore weather index insurance to address the risks of climate change and reduce farmers' losses; e) ESCMF-P makes provision to incorporate climate change factors and nature-based solutions into infrastructure improvements to increase resilience to natural disasters and the impacts of climate change: f) Finally, the project will promote the use of supporting trees which can effectively prevent bamboo bending, lodging, and other phenomena caused by rain and snow weather.</p>		
<p>Project Scope</p>	Moderate	Moderate
<p>Project Relevance</p>	Moderate	Moderate

<p>Risk:</p> <p>The project is highly relevant to the government strategy of rural revitalization in its pursuit for inclusive and thriving agribusiness and ecologically liveable countryside in line with the “two-mountain theory” of president Xi. The main risks pertain to the fact that the benefit generated by the project may not adequately attract/support those economically less active households for their increased income, also their overall benefit sharing with engaged enterprises may not be attractive enough for them to effectively invest/engage in the value chains, because: (i) income from agricultural production constitute a relative declining proportion of the rural people, the project’s contribution to their household income increase could be limited; (ii) many remaining vulnerable with low income either have their land transferred or are lack of labour; (iii) re-financing arrangements may not be conducive in engaging smallholders who has potential and interest in generating income from managing tree crops; (iv) mainstreaming themes and non-tangible benefits maybe given less emphasis during implementation thus bring down project effectiveness and impact</p>	Moderate	Moderate
<p>Mitigations:</p> <p>(i) Promoting diversified but private sector led business models with multiple options of benefiting approach to allow project generated dividends benefiting different kind of vulnerable households. (ii) Expand income generating opportunities for the target groups beyond production, labor, primary processing, employment etc.; (iii) allow reallocation of resource to better performing counties and diversify business models to suit evolving context under the key criteria of inclusiveness and market access; (iv) maximize project support to cooperatives that can enrol adequate number fo smallholders and adopt standardize operation</p>		
<p>Technical Soundness</p>	Moderate	Moderate
<p>Risk:</p> <p>The models are not benefiting enough the smallholders and the socio-environmental safeguards aren’t followed</p>	Moderate	Moderate
<p>Mitigations:</p> <p>The Governments at the Provincial and county level are committed to consolidating the achievements of poverty alleviation, green growth and neutral carbon pathways through a private sector led transformative model.</p> <p>The Governments will channel their support and resources for the development and growth of the selected value chains through the government-owned County Development Investment Company (CDIC) which are committed to making equity investments and attract private enterprises that have sound environmental and social management system.</p> <p>The production and business plans preparation, stakeholder engagement and ESG enforcement will ensure that terms of engagement between the smallholders and cooperatives on the one hand and between the cooperatives and the private enterprises will be mutually beneficial and will ensure sustained growth and production of the model.</p> <p>The market dynamics will continue to support the expansion in the demand of the three selected value chains and bring commensurate benefits from enhanced production and processing of these high value-added commodities.</p>		
<p>Institutional Capacity for Implementation and Sustainability</p>	Moderate	Low
<p>Implementation Arrangements</p>	Moderate	Low

<p>Risk:</p> <p>Overall implementation arrangement with government institutions will be in line with established and proved arrangements for donor/IFI financed projects. The potential risks are: a) the actual functioning and role of government institutions in this project where the private sector is taking lead in financing businesses however requires clearer defining; b) introducing a financing intermediary in the implementation and supporting smallholders through private sector could be the main risk factors; c) role of technical agencies and mechanism of their entry into project implementation to be clarified; d) capacity in overseeing business models, mainstreaming themes, knowledge and M&E could be lacking among PMOs</p>	Moderate	Low
<p>Mitigations:</p> <p>Design has defined the co-financing arrangement with private sectors through a BP approach. Actions to mitigate implementation risks include: a) intensified start up support and training; b) involvement of local technical experts called upon by PPMO to provide technical guidance to project implementation; c) take full advantage of CDIC experience and expertise in business investment; d) soonest finalization of PIM by PPMO with the level of details/specifics that can best guide activity implementation; e) early appointment of staff with designated roles and responsibilities.</p>		
<p>Monitoring and Evaluation Arrangements</p>	Moderate	Low
<p>Risk:</p> <p>Risk of delayed implementation of MIS and M&E system is present. Efficiency and collaboration by private sector in M&E remains uncertain.</p>	Moderate	Low
<p>Mitigations:</p> <p>The Project should set up the MIS and M&E system at the first months of implementation before operations roll out. MIS/M&E samples and experiences of ongoing China projects will be referenced and fully shared for HGDP. PMOs should take full ownership and accountability of the M&E work to ascertain quality and more importantly make use of the M&E information. Support of potential service providers will be explored and possibly contracted for project benefit. Periodical reports, internal workshops and knowledge products will need to make full use and build on the M&E information. . ICO follow up and support will be given to HGDP. PIM will be further detailed before its official dissemination to counties to reflect the necessary provisions for M&E requirements.</p>		
<p>Project Financial Management</p>	Moderate	Moderate
<p>Project Organization and Staffing</p>	Substantial	Substantial
<p>Risk:</p> <ul style="list-style-type: none"> • Staff capacity of PPMO and especially in the counties may not be on the required level. • The financial operations of the project within the PPMO and County PMOs will be distinct, and ring fenced from the country public financial management. A Project Implementation Manual which describes the financial management and procurement arrangements is outlined in Annex 8 Volume II. • providers proposed for implementing Components 1 and 2 will have capable staff and a financial management (FM) system for managing project funds with qualified Finance staff, safeguarding assets and providing periodical financial reports and other required reports to the PPMO. 	Substantial	Substantial
<p>Mitigations:</p> <ul style="list-style-type: none"> • FM staff at PPMO and counties will have detailed job descriptions and detailed FM manual (in PIM). • Start-up training, and continuous support missions from IFAD. • Experience exchange between PMOs on FM in Hunan province. 		
<p>Project Budgeting</p>	Moderate	Moderate

Risk: <ul style="list-style-type: none"> • Preparation of AWPB might be delayed due to staff capacity and approval procedures. • AWPB might not be realistic or not achievable. • The budget preparation and revision process have rigorous procedures within the entity and may cause strict control but some delays in loan disbursement. 	Moderate	Moderate
Mitigations: <ul style="list-style-type: none"> • Training to PPMO and CPMO staff on preparation of AWPB. • A mechanism in place to timely capture the progress of expenditure Vs. budget. 		
Project Funds Flow/Disbursement Arrangements	Substantial	Substantial
Risk: <ul style="list-style-type: none"> • Delay during the start-up of project activities. • Delay in submission of IFRs and WAs to IFAD. • DA and project account arrangements cannot be clear to the project staff. 	Substantial	Substantial
Mitigations: <ul style="list-style-type: none"> • Retroactive financing will be suggested to ensure the timely launching of the project. • Ensure good accounting system that capable to provide IFR and WA in required formats. • Capacity building workshops on preparation of IFRs. • IFR timing will be set 30 days rather than 45 in FMFCL. • FM manual will provide detailed guidance on DA and PA arrangements. 		
Project Internal Controls	Moderate	Moderate
Risk: <ul style="list-style-type: none"> • Big bulks of loan funds will be concentrated in 3 cost categories (Works, GSI & Materials) and procurement process transparency can be challenging. • Limited suppliers for goods and services and less capacity may lead to overpayment for services. • Staff capacity and awareness of anti-corruption policy. 	Moderate	Moderate
Mitigations: <ul style="list-style-type: none"> • Detailed PIM with detailed FM and Procurement procedures along with extensive training on PIM will be provided to the project staff. • Segregation of duties in the project will be set up. • External audit of the project to be conducted annually. • IFAD anti-corruption policy will be included in PIM and training delivered to staff and stakeholders. • Effective computerized software shall be used to ensure the reconciliation of account and chasing of payment. 		
Project Accounting and Financial Reporting	Moderate	Moderate
Risk: <p>Financial reporting is not produced properly and timely due to manual accounting. Cost categories cannot be properly reflected in the financial reporting. Risk that accounting systems – including polices and standards – are not integrated and reliable, leading to inaccuracies in financial records and that reasonable records are not prepared, issued and stored, leading to lack of informed decision-making.</p>	Moderate	Moderate
Mitigations: <ul style="list-style-type: none"> • The accounting software already used in other Chinese project will be set up to meet to IFAD accounting and financial reporting requirements. Including cost categories. 		

Project External Audit	Moderate	Moderate
<p>Risk:</p> <p>The provincial SAI capacity cannot be of an acceptable level and quality of audit reports cannot be acceptable, reports are provided in local language and not in the FA official language, the reports provided with delay.</p>	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> • The Hunan provincial NAO will be responsible for external audit and IFAD will communicate IFAD requirements on financial reporting and auditing to the auditors. 		
Project Procurement	Moderate	Moderate
Legal and Regulatory Framework	Moderate	Moderate
<p>Risk:</p> <p>Legal, regulatory and policy framework are clear and mainstreamed with international procurement practices. There are complete system framework on procurement and corresponding laws and regulations in China. The domestic supply market is sufficient and the conditions for the implementation of international funded projects are favorable.</p> <p>Open Tendering is most common competitive method that prescribed in China Tendering and Bidding Law, of which the thresholds are not less than CNY4 million for Works, CNY2 million for Goods, and CNY1 million for Services. The other methods include Bidding by Invitation, Shopping, Competitive Negotiation, etc. The direct contract can be applied in special cases based on sufficient reasonable ground.</p> <p>Risk:</p> <ul style="list-style-type: none"> - IFAD's Consulting Services methods (QCBS/LCS/CQS/QBS/FBS) are not indicated in the National Procurement Law. - The minimum of advertising time prescribed in China Tendering and Bidding Law are shorter than the requirement of IFAD. For example, the national laws prescribed that minimum of 20 days for national Open Bidding (competitive); minimum of advertising time from 10 to 20 days for less competitive procurement processes. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> - The Project Procurement Arrangement (PPA) will specify provisions for application of different procurement methods and direct contracting/single source selection, satisfying IFAD requirements. - In term of efficiency and practicability, the application of the national advertising rules will have limited impact on the project. 		
Accountability and Transparency	Moderate	Moderate

<p>Risk:</p> <p>The risk that accountability, transparency and oversight arrangements (including the handling of complaints regarding, for example, SH/SEA and fraud and corruption) are inadequate to safeguard the integrity of project procurement and contract execution, leading to the unintended use of funds, misprocurement, SH/SEA, and/or execution of project procurements outside of the required time, cost and quality requirements.</p> <p>Risk:</p> <ul style="list-style-type: none"> - The stakeholder support to strengthen integrity in procurement is relatively weak due to the lack of enough channels for engagement and feedback that are promoted by the government. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> - Promote anti-corruption framework, establish internal compliance measures or support integrity and ethical behavior in public procurement. 		
Capability in Public Procurement	Moderate	Moderate
<p>Risk:</p> <p>The Provincial Project Management Office is instituted in the Provincial Forestry Department of Hunan, which is experienced in implementing international financial organizations projects. The PPMO is basically capable of implementing the procurement of IFAD funded projects. The sustainable procurement capacity building for all the procurement participants at each level will be taken into account throughout the entire project lifecycle. A provincial procurement agency should be recruited to provide the professional services for project procurement as early as possible.</p> <p>Risk:</p> <ul style="list-style-type: none"> - Less training, advice and assistance could be directly acquired from government department relate to procurement. - The professional certifications regarding to the government procurement department are absent. - The performance management system still needs to be improved, more comprehensive monitoring indicators should be applied for performance assessment. 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> - Develop the capacity of procurement officials by increasing the professional procurement training at project level. - The system or mechanism should be established for assessing the capacity and profession of the government procurement department, for example, through the measures of training, examination or authentication. - It is necessary to reform and establish the regulations for supporting and improving the public procurement system. For example, put the Post Procurement Evaluation into practice. 		
Public Procurement Processes	Moderate	Moderate

<p>Risk:</p> <p>Procurement of Goods, Works and Consulting Services financed by IFAD will be involved in Procurement Plan and carried out in accordance with the IFAD Procurement Guidelines, IFAD Procurement Handbook and relevant procurement policy of IFAD. China National Procurement Laws and corresponding implementation manuals will be applied for the procurement financed by government counterpart. The procurement methods to be applied, prior review arrangements, and the thresholds for different procurement methods will be taken into account at detailed design stage and the Project Procurement Arrangement (PPA) will be developed to guide the project procurement. While the procurement processes are implemented on the government public trading platform, the Project Implementation Agency should coordinate with the platform to ensure that more flexible processes and procedures are applied for IFAD funded project to comply with IFAD Procurement Guidelines, IFAD Procurement Handbook and its subsequent. The platform should be able to implement the electric procurement processes which could serve as an alternative procurement approach.</p> <p>Risk:</p> <ul style="list-style-type: none"> - The sustainability criteria applied during the planning stage are not sufficiently to ensure value for money. - The discrepancies exist between national procurement processes and IFAD's. - Delays in contract implementations are often happened due to objective and subjective matters 	Moderate	Moderate
<p>Mitigations:</p> <ul style="list-style-type: none"> - Improve the bidding document containing the sustainability to ensure the value for money at planning stage. - Combine the national rules and IFAD's as far as possible from the principle of value for money. Some innovative measures could be introduced in place to bridge these discrepancies in practice. - Monitoring closely contract implementation progress with periodic progress reports and follow-up actions. 		
Environment, Social and Climate Impact	Moderate	Low
Biodiversity Conservation	Moderate	Low
<p>Risk:</p> <p>The risk that the project may cause significant threats to or the loss of biodiversity, availability of diversified nutritious food, ecosystems and ecosystem services, territories of the indigenous peoples, or the unsustainable use/production of living natural resources. The Project is fully dependent on production of living natural resources and deal with agro-forestry system so requires attention.</p>	Moderate	Low
<p>Mitigations:</p> <p>The project will only intervene in areas that are already under some kind of agro-forestry system or in degraded areas for limited new . Zoning will also be done and ensure that the project does not intervene in protected areas or red ecological zoning. As per Wild Plants Protection Regulations (2017 Amendment), any entities or individuals are prohibited to illegally collect wild plants or damage their growing environment. Only bamboo is harvested for woody material and the harvesting practices promoted are to ensure sustainable bamboo forest management. Digging bamboo shoots and thinning bamboo forests are commonly used methods for managing bamboo forests, which can effectively prevent the disorderly expansion of bamboo and increase the yield of bamboo shoots and the main grain of bamboo and wood. Finally, the project will promote use of supporting trees which can effectively decrease pest, limit propagation and increase the species diversity of bamboo forests. Furthermore, it will not undertake activities that may cause significant threats to or the loss of biodiversity and ecosystem and its services. By adopting good agricultural practices, the project will also be conducive to the sustainable use of natural resources</p>		
Resource Efficiency and Pollution Prevention	Moderate	Moderate

<p>Risk:</p> <p>The project is sited in an existing agricultural area, with low environmental and/or social sensitivity. Risks related to resource use and pollution includes 1. Use of fertilizer in plantation but this will be limited as mostly organic and no pesticides used. 2. water use for irrigation: The irrigation systems will be of small scale and use surface water with negligible impact on existing resources. 3. in enterprise: the establishment of enterprise parks will assist in pollution prevention, energy efficiency, solid waste disposal and enforcement and monitoring of quality standards.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>Project supported Business Plan and partnership will elaborate on input use and pollution prevention measures in production and processing. As envisaged in SECAP guidance, project will promote practical options including zero-growth of fertilizer use and integrated fertility management combining with non mineral options & use of micro-organisms & integrated farming; Integrated Pest Management plan to reduce use of pesticide ; Potential dedicated digital advisory to recommendation to specific conditions / micro dosing; Utilization of planting waste and promotion of energy saving, renewable energy ; promoting efficient water management, training water user associations and piloting water monitoring in areas of water scarcity</p>		
<p>Cultural Heritage</p>	Low	Low
<p>Risk:</p> <p>The project activities do not foresee impact to degradation or loss of resources of historical, religious or cultural significance. Project is targeting to use national heritage knowledge and medicinal plants which are not tight to specific areas. However, project may identify and wish to work on some cultural farming systems practices, varieties or knowledge along for instance valorization of medicinal crops,</p>	Low	Low
<p>Mitigations:</p> <p>If a project proposes to utilize cultural heritage / heritage of IP, what is not foreseen in this project, including knowledge, innovations or practices of local communities to benefit the project or for commercial purposes, communities should be informed of: (i) their rights under national law; (ii) the scope and nature of the proposed use; and (iii) the potential consequences. FPIC of the local communities should be sought, and arrangements should be made for fair and equitable sharing of benefits.</p>		
<p>Indigenous People</p>	Moderate	Low
<p>Risk:</p> <p>The project area has limited number of ethnic minority people (8.39%), among them, 74.2% inhabit in Yuanling County, and they will share the priority of project targeting. Furthermore, they are integrated in the mainstream of the society and almost no differentiation is made to the ethnic minority people. The government applies preferential policies and support to ethnic minorities in social, cultural and economic development as compared to the majority of Han. There is no risk anticipated of the project to the ethnic minority people in the project areas. However, the project may be sited within commuting distance of ethnic minority and offer them employment.</p>	Moderate	Low
<p>Mitigations:</p> <p>An IPPF has been formulated as well as an FPIC in a culturally appropriate manner. FPIC of the local communities should be sought, and arrangements should be made for fair and equitable sharing of benefits.</p>		
<p>Labour and Working Conditions</p>	Moderate	Low

<p>Risk:</p> <p>Labour and Working Conditions are highly regulated and there is no evidence of violation or deviation reported in relationship with the project design..</p>	Moderate	Low
<p>Mitigations:</p> <p>Standard contract templates for labor will be developed before the start of the project and will require strict implementation during project implementation. The project's beneficiary feedback and grievance redress system will be put in place in complementarity with the government's vertical complaint system. The personal safety protection would be strictly implemented to ensure the safety of labors. The workers involved in the project will sign contracts. Wages and salaries are negotiated by both parties and implemented according to industry standards. There are early warning and defensive measures for emergencies. If necessary, arbitration and appeal can be conducted.</p>		
<p>Community health, safety and security</p>	Moderate	Low
<p>Risk:</p> <p>The risk that the project may cause significant adverse impacts on the physical, mental, nutritional or social health/safety status of an individual, group, or population. Major risks here include: 1) construction of building Any construction envisioning in the project need to have construction permits which require an environmental impact assessment and selection of carefully selected areas with limited exposure to climate/natural risks; 2) Traffic: Work track, dirt roads and gravel roads, planned in bamboo forest are used only for workers to deliver bamboo shoots and bamboo woods and will be small so it is expected that maximum 10 people may use one track a day. 3) Labor influx: additional labour will be required to develop the infrastructure, intensify agro-forestry work and engage in enterprise park processing activities; however, considering rural density of population in China, the project should be able to source labour locally to ensure additional labor can commute daily and won't affect the existing community setting.</p>	Moderate	Low
<p>Mitigations:</p> <p>Government environmental management systems are designed to protect public and worker safety against the potential risks associated with exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials Measures have been taken to reduce the exposure of workers and community members to hazardous materials in the environment during the implantation of the project, to safeguard human health and community safety. In the construction of public infrastructure, the design, construction, and operation of structural elements comply with national legal requirements and the IFAD's "Environmental, Health and Safety Guidelines", while also considering the safety risks to third parties and affected communities. Construction insurances are purchased as required. The selection of the location of the warehouse for storing fertilizers should meet the requirements of GB/T 42958-2023 "Instructions for the Use of Fertilizer Products". The warehouse should be far away from water sources and residential areas, should be built in a place with high terrain and no water, should be equipped with fire equipment and first aid medicine boxes, should have good ventilation conditions and install lighting system. For labor influx, Corporate company bidding to join the project and enterprise park will need to include assessment of labor needs and plans to source labor, prioritizing local labor and including appropriate mitigation and management measures to address risks and potential impacts on the health and safety of communities arising in case of limited influx of project workers.</p> <p>The construction will be designed and constructed by competent professionals, and certified or approved by competent authorities, having clear construction safety guidelines. This should also be clearly stated in the procurement of such constructions.</p>		
<p>Physical and Economic Resettlement</p>	Moderate	Low

<p>Risk:</p> <p>The risk that the project may cause significant adverse physical, social, cultural or economic impacts, especially for marginalized groups, from land acquisition, and involuntary loss of land, assets, access to assets, income sources, or means of livelihoods.</p> <p>No resettlement is foreseen under the project but the project may lead to minor economic displacement and temporary change of land tenure arrangement. The allocation of land for roads is limited considering their limited width (1.5 to 3.5 meter max, so maximum 2% of an average smallholder plot) and possible compensation for road and enterprise constructions will follow government regulations; smallholder farmers may decide to sign long term land lease with the enterprise but this will not change ownership and will be done through a free and prior informed consent and dedicated government procedure</p>	Moderate	Low
<p>Mitigations:</p> <p>Minimize economic displacement during infrastructure construction, applying government measures favoring construction in barren land / existing constructions. For irrigation, this will also include ensuring transparent, informed and documented discussion with all farmers benefitting from the planned irrigation system to reach voluntary signed consent with land user rights holders for placing water ponds or pools on their land. project will review and strenghten property right as needed and, in case of land dispute, do not engage in infrastructure or production investments in concerned land unless dispute settled formally through fair, open, and transparent means. In case of economic displacement to construct infrastructure, ensure appropriate compensation as per province standards following the principle of the national unified guarantee of the basic living standards and property rights and interests of the expropriated farmers.</p>		
<p>Greenhouse Gas Emissions</p>	Low	Low
<p>Risk:</p> <p>The project will aim to contribute to the net reduction of Greenhouse Gas as result of increasing biomass by rehabilitating and improvement the management of the tree crops for increased carbon sequestration and by promoting energy efficient irrigation and transformation infrastructure, including use of renewable energy .</p>	Low	Low
<p>Mitigations:</p> <p>Emissions will be tracked as per project Log frame and component dedicated to improve monitoring of carbon storage in bamboo plantations</p>		
<p>Vulnerability of target populations and ecosystems to climate variability and hazards</p>	Moderate	Low
<p>Risk:</p> <p>Based on historic data analysis, the project area has found become warming as result of global climate change. Especially in the past ten years the warming trend is much more obvious. There is an obvious upward trend that the annual rainfall is also increasing, result in more frequent rainstorm. Increased high-temperature days throughout the year and prolonged low temperature days were also observed.</p>	Moderate	Low
<p>Mitigations:</p> <p>The project will take advantage of proven interventions and experiences in mitigating the vulnerability of the target groups to ecosystem and climate impacts in the country programme and incorporate the good practices in the final design. For instance, it will also invest in climate resilient practices, climate advisory / alert systems, adoption of disaster preparedness plan and promote use of adapted insurance.</p>		
<p>Stakeholders</p>	Moderate	Moderate
<p>Stakeholder Engagement/Coordination</p>	Moderate	Moderate

<p>Risk:</p> <p>There is risk that some stakeholders are not adequately engaged due to the limitation in their business coverage, such as rural finance and insurance providers, technical extension providers, participating line agencies and other entities along the value chains that the project promoting.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>(i) Government will make value chain development plan to outline potential stakeholders in the specific value chains and analyse their roles; (ii) Project workshop will be organized back to back with SIS missions to enhance clarity of project implementation requirements and allow participation and coordination with relevant stakeholders; (iii) Project management offices are encouraged to reach out to relevant partners to support the implementation of business plans; (iv) Apps developed to allow better dissemination of project related information and feedback/response from stakeholders.</p>		
<p>Stakeholder Grievances</p>	Moderate	Moderate
<p>Risk:</p> <p>Systems and opportunities are in place for stakeholders to express their opinions and complaints emerged during their interaction and participation of the project. Major project procurements are disclosed for publicity before deals are confirmed. Project Apps accepts feedback from users. Government agencies have open channels to receive complaints and reports of misconduct during project implementation. Regular project workshop involves relevant stakeholders. The risk of suppressed or unattended stakeholder complaints is moderate.</p>	Moderate	Moderate
<p>Mitigations:</p> <p>VIGs and CPMOs will conduct regular notifications to the villagers on the planned activities and means/criteria of participation.</p>		

China

**Hunan Green Development Project
Project Design Report**

Annex 10: Exit Strategy

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 10: Exit Strategy

1. The sustainability and exit strategy of this project is based on a three-pronged approach. The first element of the approach is private sector enterprises as the engine of sustainable growth with expansion through the project's investment in shared facilities, such as agro-enterprise parks, and access to direct investment, contributing to expanding their capacity, increasing equitable participation of smallholders and labour, further developing value addition and diversifying products and markets. The three value chains selected have significant potential for growth and development. The project is unlocking that potential by enabling the enterprises to access investment and working capital as well as a steady supply of raw materials through integration of smallholders into the selected value chains. This aligns well with the Rural Revitalization Strategy which sees the revitalization of rural industries as a top priority in consolidating and expanding past achievements in poverty alleviation. The full cost approach to project investments at this level, will ensure sustainable businesses, will demonstrate scalability across similar industries and/or counties, assuming a dynamic growing market.
2. The second prong of the strategy is to put in place arrangements through which smallholder farmers have an improved understanding and access to production techniques and facilities that make them more adaptive to climate risks. Training opportunities will be provided to the smallholders for improved management practices. Smallholder farmers who own and operate the production base are being integrated into the business model through a systematic approach which enables them to participate through cooperatives or directly with the market. Their sustained interest in the partnerships, whether as operators or lessors, will be ensured through increased incomes and employment. The capacities of participating and emerging farmer cooperatives will be strengthened to enable them to negotiate better terms of partnership with the private sector and enhance their outreach and array of services to smallholders, implicitly improving their chances of long-term viability. These arrangements are expected to work well once they are established as they move towards a win win solution.
3. The third prong of the strategy is related to sustained enabling environment and policy engagement. Indeed, there is strong commitment at the Provincial and County level to continue to provide support to both the smallholders and the private sector through a supportive policy and regulatory environment. The provision of annual inputs and subsidies will continue to be provided by the State, Provincial and County Governments for the selected crops as part of existing Government policy to incentivize and assist farmers. Country Development Investment Companies have a mandate to continue to provide equity investments to support investments for rural growth and development. These are expected to continue to make investments from their resources in the development of the selected value chains. The Forestry bureaus are expected to enhance their capacity for sector development by improved understanding of the type of policy and regulatory environment required for sustainable development of the agro-forestry and forestry sectors. The project's investment in developing a system for monitoring and measuring carbon sequestration is also expected to assist the government in refining its policy regarding CCER and can be scaled up to enable the Government to meet its commitments to achieve carbon neutrality by 2060.
4. The project will oversee these arrangements to guide and report project results. The CPMO's will provide close supervision of how the system is working to ensure that it can focus its efforts on any weaknesses in the system and provide support where needed. Sustainability of the project's target groups activities and investments will be ensured via the project's strong market alignment and intensive engagement and investment in private sector industry players, including small and medium enterprises along the three value chains. Sustainability of these investments in private sector will be dependent on the feasibility of the business plans presented, the orientation of the private sector towards

demonstrated market opportunities, the quality of the screening and analysis of these financial proposals, the terms and conditions of each of the project's financial investments and the parallel non-financial support extended to these target groups.

Key elements supporting this 3-pronged approach are:

5. The **specific choice of model for smallholder engagement** will be based on market conditions and context, including the viability of farm size and the availability of other factors of production. The quality of smallholders' commitment and outcomes through the project and beyond will depend on the suitability of the choice of the model of engagement with their commercial and government business partners at the project initial stages. Well placed incentives provided by the project to these private and state-owned enterprises will catalyze smallholder participation and stimulate smallholders to improve the volume and quality of the production through the project's investments in production and market linkages in the three target value chains. The support of HGDP aims to support sustainable development of these VCs that will be of sufficient scale to be resilient in the face of market and other risks.
6. Both commercial firms and state-owned enterprises will capitalize on the incentives and investments provided by the project to the producers, and where existent, their cooperatives, while improving natural resources management. The project will work together with all the stakeholders building on the understanding that their products and services **rely heavily on natural resources** and they should **ensure their sustainability**.
7. **Sustainability of the green investments** will be provided through appropriate training in planting, care and feeding of the plantations and associated crops, and then (critically) linked to the development of the business case (including green branding, standards and traceability) to improve and sustain management as suppliers to downstream VC actors.
8. Sustainability is integrated into the HGDP design through **consideration of safeguards, capacity building and ensuring measures for ongoing maintenance of investments**, particularly infrastructure investments. In addition, there will be strong focus on sustainable exit from the outset. The Project will work with project stakeholders to ensure plans for effective phase out and transition of work arrangements and support services so that support to the Project stakeholders will continue sustaining the investments after project closure.
9. **Capacity building for VC actors in the local area will be a key factor in the sustainability of HGDP.** These actors will include smallholders, service providers, cooperatives, Private Sector actors, county governments and their investments arms. Project will also undertake extensive trainings and capacity building programs to empower women and for better inclusion of youth including interventions to strengthen the capacities of rural organizations, including cooperatives, to implement women and youth sensitive programs and integrate them into their membership.
10. **The sustainability of rural infrastructure delivered through the Project is also an important aspect of sustainability.** HGDP infrastructure investments will be made in compliance with government standards and safeguards. In the case of infrastructure investments as encapsulated in the farm, this will mean training to the owners or lessors of the land in the operation and maintenance (O&M) of infrastructure improvements prior to the end of the lease agreement. Large infrastructure projects, such as the agro-enterprise parks will be developed to operate on a profitable basis within a reasonable, forecasted timeframe and priced to cover depreciation and maintenance costs. All other investments whether community or county based will have a clear ownership structure and develop an O&M plan at onset of the investment. Infrastructure such as passageways and small irrigation schemes will be handed over to the users and the regular operation

and maintenance will be undertaken by the plantation owners and managers. Government will continue to provide support for similar infrastructure for improving drought resistance for the selected crops.

11. **Partnership with the private sector for sustainable value chain operations will be established** by joint planning/implementation of investment plans promoting good management practices and innovative approaches to ensure active participation and interest of the private sector for establishing new priorities and/or redirecting existing investments in line with the Project objectives.
12. In addition, the proposed **financing mechanism to be delivered through the county investment companies (CDIC) is designed to build sustainability, through its commercially oriented business model. These investments (and their conduits) will be placed to generate cash flow to ensure repayment of the IFAD loan.** Many of them have generated surpluses over the years and are well poised to grow and expand their initial capital base.
13. An important part of the exit strategy with reference to **investments in production on private lands** is based on the fact that these investments will be made directly by smallholders, cooperative farms who have leased land, private enterprises and public sector enterprises who work with smallholders. This activity is expected to continue as long as it generates income. The county governments are committed to supporting production through a range of subsidies from the State, provincial and County Governments on an annual basis. The other inputs of labour and seed and agriculture inputs will be required on an annual basis and will be provided by the smallholders themselves and the Government as well as by the public and private enterprises in cases where there is a contractual arrangement for purchase or long-term leasing. Scale can be achieved through increased demand of the produce which can encourage expansion of production volumes and area under each crop.
14. **Investment in production on public lands.** This investment will be made by public sector enterprises. This activity is expected to continue as long as it generates income and revenue. CDICs and State Forestry Farms are committed to the investment. Scale can be achieved through increased demand of the produce which can encourage expansion of production volumes and area under each crop.
15. **Design and Ownership of Exit Strategy.** While the design has considered the sustainability of the project interventions and has engaged promising partners with aligned incentives, it is best practice to ensure ownership of an exit strategy through assisting the project management to go through the exit strategy development (potentially with the assistance of the PDT). The project management's careful consideration of the suitability of the selected partners, their track record/performance within the project, the expected viability of the investments and the general trends in the market, will greatly inform the exit strategy and ensure reality checks. The PIM will include guidance in this as provided by IFAD, and IFAD will offer support in development if required. In particular the project will elaborate on the prevalence of parallel input subsidies and their role vis a vis sustainability of project endeavors. It will also provide a clear timeline for project phase out elaborating on the roles of partners in the sustainability question.

China

Hunan Green Development Project

Project Design Report

Annex 11: Mainstreaming themes – Eligibility criteria checklist

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Mainstreaming themes – Eligibility criteria checklist						
	<input checked="" type="checkbox"/> Be gender transformative	<input checked="" type="checkbox"/> Be youth sensitive	<input type="checkbox"/> Be nutrition sensitive	<input type="checkbox"/> Prioritize persons with disabilities	<input type="checkbox"/> Prioritize indigenous peoples	<input checked="" type="checkbox"/> Include climate finance <input checked="" type="checkbox"/> Build adaptive capacity
Situation analysis	<input checked="" type="checkbox"/> National gender policies, strategies and actors <input checked="" type="checkbox"/> Gender roles and exclusion/discrimination <input checked="" type="checkbox"/> Key livelihood problems and opportunities, by gender	<input checked="" type="checkbox"/> National youth policies, strategies and actors <input checked="" type="checkbox"/> Main youth groups <input checked="" type="checkbox"/> Challenges and opportunities by youth group	<input type="checkbox"/> National nutrition policies, strategies and actors <input type="checkbox"/> Key nutrition problems and underlying causes, by group <input type="checkbox"/> Nutritionally vulnerable beneficiaries, by group	<input type="checkbox"/> National policies, strategies and actors <input type="checkbox"/> Main groupings among PwDs <input type="checkbox"/> Context-based barriers and opportunities for PwDs	<input type="checkbox"/> International standards, national policies, strategies and key IPs' organizations <input type="checkbox"/> Main IPs communities, demographic, social, cultural and political characteristics <input type="checkbox"/> Important livelihoods constraints and opportunities for IPs and their cultural heritage	
Theory of change	<input checked="" type="checkbox"/> Gender policy objectives (empowerment, voice, workload) <input checked="" type="checkbox"/> Gender transformative pathways <input checked="" type="checkbox"/> Policy engagement on GEWE	<input checked="" type="checkbox"/> Pathways to youth socioeconomic empowerment <input checked="" type="checkbox"/> Youth employment included in project objectives/activities	<input type="checkbox"/> Nutrition pathways <input type="checkbox"/> Causal linkage between problems, outcomes and impacts	<input type="checkbox"/> Pathways to PwDs' socioeconomic empowerment using a twin-track approach	<input type="checkbox"/> Pathways to IPs' socioeconomic empowerment	
Logframe indicators	<input checked="" type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input checked="" type="checkbox"/> Women are > 40% of outreach beneficiaries <input checked="" type="checkbox"/> IFAD empowerment index (IE.2.1)	<input checked="" type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input checked="" type="checkbox"/> Persons with new jobs/employment opportunities (CI 2.2.1)	<input type="checkbox"/> Outreach disaggregated by sex, youth and IPs (if appropriate) <input type="checkbox"/> Targeted support to improve nutrition (CI 1.1.8) Outcome level CIs <input type="checkbox"/> CI 1.2.8 MDDW <input type="checkbox"/> CI 1.2.9 KAP	<input type="checkbox"/> Outreach disaggregated by sex, youth, disability and IPs (if appropriate)	<input type="checkbox"/> Outreach indicator disaggregated by sex, youth and IPs <input type="checkbox"/> IPs are > 30% of target beneficiaries	
Human and financial resources	<input checked="" type="checkbox"/> Staff with gender TORs <input checked="" type="checkbox"/> Funds for gender activities <input checked="" type="checkbox"/> Funds for IFAD empowerment index in M&E budget	<input checked="" type="checkbox"/> Staff with youth TORs <input checked="" type="checkbox"/> Funds for youth activities	<input type="checkbox"/> Staff or partner with nutrition TORs <input type="checkbox"/> Funds for nutrition activities	<input type="checkbox"/> Staff with disability inclusion-specific TORs <input type="checkbox"/> Funds for disability inclusion-related activities (including accessibility)	<input type="checkbox"/> Staff with IPs-specific TORs <input type="checkbox"/> Funds for IPs related activities, including FPIC	IFAD Adaptation Finance \$24,485,000 IFAD Mitigation Finance \$37,098,000 Total IFAD Climate-focused Finance \$61,583,000

ECG Remarks	Gender Nutrition Youth Persons with Disabilities Indigenous Peoples <input type="checkbox"/> No social inclusion themes
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China

Hunan Green Development Project

Project Design Report

Annex: Additional Annex Fm Arrangements

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department



Detailed FM arrangements in the Project Design Report (PDR)

I. Summary of Financial Management arrangements

1. The Finance officer conducted a series of meetings with counterparts during the design mission. The meetings with Forestry Station of the Hunan Province Department of Forestry which will be performing functions of the Provincial Project Management Office (PPMO) management and with the Foreign Aid Unit of the provincial Department of Finance (DoF). The meetings also were conducted with Hunan county government representatives during the field visits in 3 participating counties of the province.
2. The Financial Management (FM) capacity and risk assessment of the project has been completed in accordance with the updated FMD design guidelines.
3. Country FM systems are developed enough. The very first PEFA assessment in China was conducted in Hunan province in 8 pilot counties in 2020. The assessments have revealed that the counties' PFM system perform adequately, given the context their budgets operate in, however there is considerable scope for improvement. The main strengths of the PFM system across the counties relates to the budget reporting and control systems. Counties show strong compliance with budget preparation rules and financial data is accurately recorded and reported. Building on the assessment, a series of detailed policy recommendations for improvements are provided. The priorities are:
 - improve the predictability of Hunan Local Government transfers – a prerequisite for other needed county-level improvements;
 - county level improvements which contribute to hardening the budget constraint – improving the credibility and transparency of budget, debt and monitoring of local government financing vehicles;
 - address weaknesses in Public Investment Management and procurement systems;
 - gradually improve the performance orientation of all elements of PFM over time.
4. China being an upper-middle income country has a moderate inherent risk and control risk, more details on FM risk assessment see below in Table 2.
5. The project will be implemented by the Provincial Forestry Department (PFD) of Huan Province in China. PFD has experience in implementing foreign funded projects including World Bank and EIB. Financing will pass on to private sector who will pass on some to smallholders, financial management of these private sector may not fully meet project requirement.
6. The project will be in a ring-fenced model with existing PPMO and established CPMOs in all 7 participating counties.

II. Project financial profile

7. HGDP will be financed as follows:

IFAD financing is projected at US\$80,0 million (34 per cent of the total project costs);

Domestic financing from GoV and beneficiaries is US\$27.76 million & US\$ 16.4 million (12 per cent & 7 per cent respectively). Private sector contributes US\$111 million (47%). Beneficiary contribution will be in-kind (raw materials and labour).

Allocation by cost categories: There will be only 3 cost categories from IFAD loan:

- GSI – \$29,6M;
- Works – \$18,4M;
- E & M – \$32M.

Out of the overall project costs, component 1-Climate-smart and market-led production has been allocated the biggest proportion of 52 percent, equivalent to US\$113.6 million. Component 2-Agri-business ecosystem development accounts for 33 percent equivalent to US\$72.5 million, while component 3-Support to vulnerable communities account for 10 per cent which is equivalent to US\$ 20.6 million. The Project Management component has been allocated US\$ 10.4 million, (5 percent of the total costs).

The project legal documents will include retroactive financing provisions for up to US\$ 8,0 million to pre-finance some arrangement activities necessary for successful start of the project. The retroactive financing facility will fund project activities for the period from PDR approval until entry into force.

Table 1. HGDP costs by component (and subcomponents) and financier

Annex to the Project Design Report (PDR)

People's Republic of China
- Hunan Green Development Project
Components by Financiers
(US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Smallholder Integration in Value Chains													
1. Developing Inclusive & Sustainable Production Management Plans	-	-	288	100.0	-	-	-	-	288	0.1	29	210	49
2. Implementation of Sustainable & Climate Smart Management Practices	13 406	12.3	42 870	39.2	16 412	15.0	36 725	33.6	109 413	46.5	2 506	101 708	5 199
3. Key Infrastructure Investments for cultivating the selected high value chain crops	4 390	17.5	855	3.4	-	-	19 786	79.0	25 031	10.6	-	24 737	294
4. Enhancing Carbon Sequestration and Monitoring & Accounting	150	27.5	-	-	-	-	397	72.5	547	0.2	-	537	11
Subtotal	17 946	13.3	44 013	32.5	16 412	12.1	56 909	42.1	135 279	57.5	2 535	127 192	5 552
B. Private Enterprise Led Business Development													
1. Inclusive Business Plan Development	0	-	1 808	100.0	-	-	-	-	1 808	0.8	181	1 320	307
2. Establishment of Productive Infrastructure	4 792	5.7	31 779	37.5	-	-	48 235	56.9	84 806	36.1	-	83 467	1 339
3. Product Development & Marketing	301	4.9	-	-	-	-	5 890	95.1	6 192	2.6	-	6 171	21
Subtotal	5 094	5.5	33 587	36.2	-	-	54 125	58.3	92 806	39.5	181	90 958	1 668
C. Management and capacity building													
1. Project management and capacity building	4 715	66.3	2 400	33.7	-	-	-	-	7 115	3.0	240	6 137	738
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

Annex to the Project Design Report (PDR)

People's Republic of China
 - Hunan Green Development Project
Expenditure Accounts by Financiers
 (US\$ '000)

	The Government		IFAD		Beneficiaries		Private Sector		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs													
A. Operations and Maintenance	193	18.7	-	-	-	-	836	81.3	1 028	0.4	-	1 028	-
B. Goods, Services & Inputs (IFAD)	0	-	29 558	100.0	-	-	-	-	29 558	12.6	2 956	21 577	5 025
C. Counterpart funding (Government)	25 838	100.0	-	-	-	-	-	-	25 838	11.0	-	24 244	1 594
D. Works (IFAD)	-	-	18 388	100.0	-	-	-	-	18 388	7.8	-	18 388	-
E. Equipment and material (IFAD)	0	-	32 053	100.0	-	-	-	-	32 053	13.6	-	30 714	1 339
F. Beneficiary	-	-	-	-	16 412	100.0	-	-	16 412	7.0	-	16 412	-
G. Private sector	-	-	-	-	-	-	105 073	100.0	105 073	44.7	-	105 073	-
Total Investment Costs	26 031	11.4	80 000	35.0	16 412	7.2	105 909	46.4	228 351	97.1	2 956	217 437	7 958
II. Recurrent Costs													
A. Operating costs /a	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total Recurrent Costs	1 724	25.2	-	-	-	-	5 125	74.8	6 849	2.9	-	6 849	-
Total PROJECT COSTS	27 755	11.8	80 000	34.0	16 412	7.0	111 034	47.2	235 200	100.0	2 956	224 287	7 958

III. Implementation Arrangements

Lead Project Agency. The project will be executed and coordinated by the Provincial Forestry Department (PFD) in Hunan. A Provincial Project Management Office (PPMO) will be set up in the PFD. Specifically, the Provincial Forestry Fund Station (PFFS) will undertake the day-to-day coordination and implementation management of the whole project. While the Project Director may be assigned as a senior official in PDF, the PPMO in PFFS will be staffed adequately with the key functions necessary for the management of the project, including but not limited to an executive project director, a planning and M&E Officer, a focal point for SECAP, gender and youth businesses, a financial officer and accountant, and a knowledge management officer, among others.

County Project Management Offices: County Project Management Offices (CPMO) will be established at the County Forestry Bureau (CFB). Responsibilities of the CPMOs will include beneficiary targeting and implementation planning, overseeing business planning, coordinating with CDICs for value chain investment from either government or private sector at the farm level. In addition, the CPMOs will undertake generic project management tasks such as financial management, procurement, knowledge management and project monitoring and evaluation etc. CPMOs will be staffed adequately with the key functions necessary for the management of the project, including but not limited to a project director, a planning and M&E Officer, focal points for SECAP, gender and youth businesses, a financial officer and accountant, and a knowledge management officer, among others. Given the limited staffing of CFB however, it is acceptable that some less critical functions may be outsourced through short-term consultant or service providers, but should be handled as an integral part of the CPMO function. Relevant technical bureaus in the counties will also be mobilized to support implementation of the related project activities. Specifically, county Women Federation (WF) will be assigned as a deputy director member of the CPMO.

Department/Bureaus of Finance: The Department/Bureau of Finance (BOF) at Provincial/County level will be responsible for administering project resources, including the IFAD loan and counterpart funds at the responsive levels.

County Development Investment Company (or similar public entity) in the project counties has unique role in the project. Being state-owned investment window of the county government, CDIC will act as the de-facto co-implementing agency of the project in majority of the investment activities. CDIC receives the IFAD loan through BOF and will work in partnership with the CFBs to coordinate their efforts in the production and processing aspects of the selected value chain in each county. Under the guidance of CFB, CDIC investment will maximize engagement of and benefit to smallholders as the targeted beneficiaries of the project.

Village Implementation Groups (VIGs) will be established in the administrative villages where the three value chains are involved, especially where production is supported by project component 1. VIGs, with the guidance of township government office, will support the project implementation in functions such as beneficiary engagement (including ethnic group participation) and targeting, monitoring and grievance redress, facilitating households partnership with enterprises, O&M of project supported public infrastructure at community level, among others. Each VIG shall be headed by the Chief of the village committee and composed of 7-8, including 4-5 farmer representatives from different levels of household well-being with at least half from the community-recognized vulnerable

households. Women will be no less than 50% in the VIG, and youth especially young farmer entrepreneur will have at least one representation seat at VIG.

Financial Management Risk Assessment**Table 2. Summary of FM Risks and mitigating actions:**

Summary	Brief description of issues	Inherent Risk at design H/S/M/L	Covenants precedent to disbursement	Residual Risk ¹ H/S/M/L	Agreed Mitigation Measures
A. Inherent risk assessment pillars		M		M	
i. Country level	Corruption Perception Index 2022 review (CPI or TI Index) published in January 2023, which provides an index which ranks countries "by their perceived levels of public sector corruption, as determined by expert assessments and opinion surveys. CPI includes surveys from 12 different institutions including WB. China has been rated by TI index stable in the range of 40-49 since 2019 and rated 45 in 2022 which 2 scores are higher than in previous years, this score identifies China being in Moderate risk zone.	M		N/A	

¹ The residual risk may take into consideration the effects of mitigating actions included in the FA covenants precedent to disbursement. Therefore, the residual risk may be slightly different from the inherent risk in case we have evidence that the actions included in the FA covenants have shown to be effective in that specific context.

Country FM systems are developed enough. The very first PEFA assessment in China was conducted in Hunan province in 8 pilot counties in 2020. The assessments have revealed that the counties' PFM system perform adequately, given the context their budgets operate in, however there is considerable scope for improvement. The main strengths of the PFM system across the counties relates to the budget reporting and control systems. Counties show strong compliance with budget preparation rules and financial data is accurately recorded and reported. Building on the assessment, a series of detailed policy recommendations for improvements are provided. The priorities are:

improve the predictability of Hunan Local Government transfers – a prerequisite for other needed county-level improvements;

- county level improvements which contribute to hardening the budget constraint – improving the credibility and transparency of budget, debt and monitoring of local government financing vehicles;

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	<ul style="list-style-type: none"> - address weaknesses in Public Investment Management and procurement systems; - gradually improve the performance orientation of all elements of PFM over time. 				
ii. Entity level	<p>In PPMO there is only one FM staff without professional accounting certification but having some local FM experience in public sector and auditing. During discussion there was detailed assessment of business processes in PPMO and their interactions with the county BOFs which will be detailed in the PIM and Financial manual of the project.</p> <p>The budget preparation and revision process have rigorous procedures within the entity so that it can cause strict control but some delays in loan disbursement.</p> <p>In overall, the FM Inherent risk for China and project in design which has been identified as Moderate with no assessment of Residual risk at this stage.</p>	S		N/A	Lesson learnt from other IFAD projects in China and in Hunan province in particular.
iii. Project level	<p>The project will be implemented by the Provincial Forestry Department (PFD) of Hunan Province in China. PFD has experience in implementing foreign funded projects including World Bank and EIB. Financing will pass on to private sector who will pass on some to</p>	S	Conditions precedent to disbursement: PPMO with key staff to be confirmed,	N/A	To ensure these issues are properly addressed and resolved, different remedy measures will be applied and reflected in the project design including: (i) ensure adequate and capable finance staff should be

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	<p>smallholders, financial management of these private sector may not fully meet project requirement.</p> <p>The project will be in a ring-fenced model with existing PPMO and established CPMOs in all 7 participating counties.</p>		<p>procurement of accounting software and IFAD provides No Objection to PIM.</p>		<p>appointed as early as possible at each level of PMOs with relevant professional and working experience to quickly adapt to sound FM requirement and accounting practices; (ii) Procure/develop the web-based accounting system at early stage of implementation, taken MIS in the ongoing IFAD project as reference; (iii) Capacity building for staff should be conducted at early phase of implementation; (iv) FM procedures and requirement will be clearly spelled out in PIM, to be distributed to all levels and included in the first batch of training program. Ensure that a clear guidance, steps and check list for payments, reimbursement and disbursement are included in the PIM and agreed with DOF.</p>
B. Control risk assessment pillars		M		M	
1. Organization and Staffing	<ul style="list-style-type: none"> • Staff capacity of PPMO and especially in the counties may not be on the required level. 	S		S	<ul style="list-style-type: none"> • FM staff at PPMO and counties will have detailed job

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	<ul style="list-style-type: none"> •The financial operations of the project within the PPMO and County PMOs will be distinct, and ring fenced from the country public financial management. A Project Implementation Manual which describes the financial management and procurement arrangements is outlined in Annex 8 Volume II. • providers proposed for implementing Components 1 and 2 will have capable staff and a financial management (FM) system for managing project funds with qualified Finance staff, safeguarding assets and providing periodical financial reports and other required reports to the PPMO. 				<p>descriptions and detailed FM manual (in PIM).</p> <ul style="list-style-type: none"> • Start-up training, and continuous support missions from IFAD. • Experience exchange between PMOs on FM in Hunan province.
2. Budgeting	<ul style="list-style-type: none"> •Preparation of AWPB might be delayed due to staff capacity and approval procedures. •AWPB might not be realistic or not achievable. •The budget preparation and revision process have rigorous procedures within the entity and may cause strict control but some delays in loan disbursement. 	M		M	<ul style="list-style-type: none"> • Training to PPMO and CPMO staff on preparation of AWPB. • A mechanism in place to timely capture the progress of expenditure Vs. budget.
3. Funds flow and Disbursement Arrangements	<ul style="list-style-type: none"> •Delay during the start-up of project activities. •Delay in submission of IFRs and WAs to IFAD. •DA and project account arrangements cannot be clear to the project staff. 	S		S	<ul style="list-style-type: none"> • Retroactive financing will be suggested to ensure the timely launching of the project. • Ensure good accounting system that capable to provide IFR and WA in required formats.

					<ul style="list-style-type: none"> • Capacity building workshops on preparation of IFRs. • IFR timing will be set 30 days rather than 45 in FMFCL. • FM manual will provide detailed guidance on DA and PA arrangements.
4. Internal Controls	<ul style="list-style-type: none"> • Big bulks of loan funds will be concentrated in 3 cost categories (Works, GSI & Materials) and procurement process transparency can be challenging. • Limited suppliers for goods and services and less capacity may lead to overpayment for services. • Staff capacity and awareness of anti-corruption policy. 	M		M	<ul style="list-style-type: none"> • Detailed PIM with detailed FM and Procurement procedures along with extensive training on PIM will be provided to the project staff. • Segregation of duties in the project will be set up. • External audit of the project to be conducted annually. • IFAD anti-corruption policy will be included in PIM and training delivered to staff and stakeholders. • Effective computerized software shall be used to ensure the reconciliation of account and chasing of payment.
5. Accounting and Financial Reporting	Financial reporting is not produced properly and timely due to manual accounting.	M		M	<ul style="list-style-type: none"> • The accounting software already used in other Chinese project will be set up to meet to IFAD

Annex 7 to the Project Design Report (PDR)

	<p>Cost categories cannot be properly reflected in the financial reporting.</p> <p>Risk that accounting systems – including policies and standards – are not integrated and reliable, leading to inaccuracies in financial records and that reasonable records are not prepared, issued and stored, leading to lack of informed decision-making.</p>				<p>accounting and financial reporting requirements. Including cost categories.</p>
6. External Audit	<p>The provincial SAI capacity cannot be of an acceptable level and quality of audit reports cannot be acceptable, reports are provided in local language and not in the FA official language, the reports provided with delay.</p>	M		M	<ul style="list-style-type: none"> The Hunan provincial NAO will be responsible for external audit and IFAD will communicate IFAD requirements on financial reporting and auditing to the auditors.
Overall FM Risk @ design²	<p>Sub-section H: Overall FM Risk is Moderate based on the assessment of the country, the entity and the project levels, the major FM risks come from lack of qualified finance and project staff as well as fund flows and procurement of goods and services.</p>	M		M	<p>FM staff will be trained and detailed Financial Manual and Procurement guidelines will be developed.</p> <p>Accounting software will be procured for project at start-up.</p> <p>Capacity building and support from IFAD on Financial Reporting and auditing will be provided.</p>

² The Final Risk at design should reflect a combined consideration of inherent and control risks for the project.

V. Financial Management and Disbursement Arrangements

PMO will be set up with separate financial management system with the Finance Manager who will be recruited on the contract and separate accounting software, respective Lead Project Agency will assign the Finance staff to support and provide guidance to project finance manager to ensure the proper setting of project financial management and oversight.

IFAD did not have any investment projects with PFD before, lessons learnt from another IFAD project in Hunan province reveals the difficulty in having qualified finance staff, the formation of project PMO and project setting up activities are slow, as well as low disbursements due to slow procurement processes. To overcome these issues following main mitigation measures are recommended: Qualified Finance Manager will be recruited at early stage that will enable FM system is available the project implementation commences. The FAM will continuously receive training from IFAD on financial management. Coherent, executable procedures will be detailed in PIM that allow practical adherence to the project policy.

1) Financial management organization and staffing

The PMOs will be staffed with experienced and qualified officers in project management, financial management and procurement. They will also be assisted by officers from the technical line bureaus at each corresponding level. The PPMO and CPMOs will be in charge of the day-to-day management of project activities, overseeing the implementation and supervising the financial progress.

The PPMO organization structure will be composed of a Project Director who has the overall responsibility for the project, and a Finance Manager who has financial responsibility. A Finance assistant / consultant can also be staffed as the finance team of the PPMO. The technical officers in the PPMO will have review and pre-approval functions, similarly at the county PMOs.

The finance team of each CPMO will be composed of one Accountant with overall financial responsibility at the county level.

2) Budgeting

China has undertaken extensive reforms to its budgeting system over the past ten years. These have encompassed the entire budgeting cycle: formulation, approval, implementation and audit. Under its budgeting system, provincial, and local government, all activities of the government are predetermined and are set out in plans and programs.

The Hunan PPMO, after consultations with project stakeholders, shall prepare its annual budget, linking all the planned activities to the disbursement categories of the Schedule II of the Financing Agreement. This exercise will take place in advance of the preparation of the national budget to ensure that the required Government funds are timely allocated. All financing sources of the project should be clearly stated in a consolidated budget.

Counterpart funding will be allocated for the project by province, counties and districts. The provincial and county governments will ensure that counterpart funds are contained in the domestic fiscal allocations for

each county and that they are released for the project on time. The counterpart funding will be maintained in the Treasury Accounts of the counties and will be used to pre-finance eligible expenditures of the project as well.

3) Disbursement Arrangements and Flow of Funds

HGDP's withdrawal and utilization of loan proceeds are governed by the IFAD's Financial Management and Financial Control Handbook (FMFCH) and the Financing Agreement between IFAD and the Government of China. Applicable procedures for disbursement, financial reporting and maintenance of appropriate project records will be described in detail in the Financial Management & Financial Control Arrangements Letter (FMFCL) subsequently after the signature of the Financing Agreement.

Once the Financing Agreement of HGDP enters into force, the Ministry of Finance will on-lend the funding to the Hunan Provincial Department of Finance (HPDoF). At the same time – under the same terms and financing conditions - the HPDOF will on-lend the funding to the County Finance Bureaus.

According to the new Budget Law and the Decree 85 issued by MoF, IFAD loan is required to be included in government budgeting system. However, IFAD funds will be managed by the government treasury. The County PMOs are responsible for preparing the project annual plan and submitting to PPMO for consolidation. Since the required counterpart funds will be fully raised by county government, the CPMOs will be responsible for ensuring that the required counterpart funds committed in county government's annual budget be available.

An online guided overview of the practices and procedures of IFAD is available for project staff. Project staff is encouraged to avail this training to ensure an efficient disbursement and an appropriate fiduciary control.

Two standard disbursement procedures are available for HGDP:

Advance withdrawal

Reimbursement

Advance withdrawal

This disbursement procedure is used to advance funds to a bank account as designated by the borrower. IFAD will place a ceiling on the amount to be advanced, which will be sufficient to cover the average projected eligible expenditures of HGDP for a period of six months.

The ceiling amount will also depend on the level of expenditure reported, and the projections established on the AWPBs. IFAD will ascertain and certify clearance of the figure to be advanced, which may vary during the implementation of the project.

The advance withdrawal will be the principal method to be used for the disbursement of HGDP. The main conditions precedent to withdrawal the initial advance are: (i) evidence that the DA has been opened, and (ii) delegation of authority of the persons who will sign the withdrawal applications on behalf of the

borrower as well as other pre-conditions that will be specified in section E of the Financing Agreement. HGDP will use the IFAD Client Portal (ICP) for the submission of withdrawal applications.

Reimbursement

This disbursement procedure will be applicable when eligible expenditures have been pre-financed by the project for suppliers of goods, works, consulting or other services that have been incurred by the project from its own funds.

Flow of Funds

The Hunan Provincial Department of Finance (DOF) will open and maintain a Designated Account (DA) for the exclusive use of the loan proceeds of HGDP. The DOF will be directly responsible for the management, maintenance and reconciliation of the DA. The DA will be administered following revolving fund arrangements, in which the advance will be provided based on the cash forecasted amount reported in the IFR and the project would need periodically report justified expenditures against every reporting quarter when the expenditure incurs. Additional requirements to the revolving fund arrangements can be provided in Appendix 1 to the FMFCL.

The counties PMOs will prepare execution reports that will be reviewed by its corresponding County Finance Bureau before submission to the PPMO for additional review and consolidation. The DOF will provide final approval and transfer funds to the County Finance Bureaus. Then the finance bureaus at the request of the CPMOs will transfer funds to the Implementing Agencies (IAs) or pay Service Providers.

4) Internal Controls and Internal audit arrangements

The internal control arrangements for the project should consider: (a) competent personnel with clear responsibilities and adequate segregation of duties; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verifications and controls for assets and financial documents of the project; (d) random independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Implementing Agencies of the project.

In the case of the project it is expected that for each payment sufficient reviews and checks and oversight will be carried out by the County Finance Bureaus.

The accounting software will be used by the project to strengthen the internal control of transactions.

5) Accounting Systems and Financial Reporting mechanisms

IFAD requires that the financial statements are prepared in accordance with IPSAS cash (National Standards are also acceptable as long as they meet the minimum requirements) and that the annual statements are provided to IFAD within 3 (three) months after the end of the fiscal year. In accordance with the Project Design Report, the project will prepare its financial statements in accordance with IPSAS cash basis of accounting.

The project financial statements should include the following information:

- Project Information and performance,
- Statement of project management responsibilities,
- Statement of cash receipts and payments (by category and by financier),
- Statement of cash receipts and payments (by component),
- Statement of comparative budget and actual amount,
- Statement of Special Account movements,
- Statement of Special Account Reconciliations,
- Statement of Fixed Assets;
- Withdrawal Application Statement and Notes to the Financial Statements.

All other FM areas like documentation of key policies and procedures in use at the LPA, accounting software and how it will be adjusted to IFAD reporting requirements, adequacy of safeguarding project fixed assets, counterpart contributions, etc have been described in the Financial Management Manual of the project in detail.

6) External Audit

The project audit is an ex-post review of financial statements, records of transactions & financial systems. It examines the adequacy of accounting systems & procedures, capacity to maintain appropriate accounts & documentation of the project/grant expenditures. The objective of the project audit is to provide credibility and assurance of accountability.

The auditing is conducted by the DAO which is constituted as an independent body under the National Audit Office (NAO) and responsible for the audit for all IFIs projects in China. The Provincial Audit Office will be delegated to be responsible for auditing the project. PAO has rich experiences with WB, ADB and IFAD project auditing. The audited financial statements in English and a detailed audit report in English along with a separate Management Letter in English not later than six months after the end of each financial year.

IFAD will publicly disclose project financial statements and audit reports of projects financed by IFAD. In line with the standards of the International Aid Transparency Initiative, the government is encouraged to publish relevant financial information on their own websites, for increased accountability. The audit TORs shall explicitly mention the right of the borrower/recipient and of IFAD to publish the audit report, with no limitation-of-use clause.

The Audited financial statements need to be sent to IFAD no later than 6 months after the end of the fiscal year. The detailed instruction regarding project audit are outlined in the IFAD guidelines for project audits available at <http://www.ifad.org/pub/basic/index.htm>

The Audit Cycle and Appointing the Auditor

The complete audit cycle can be divided into the three main roles carried out by the FM/PPMO, the Auditor and IFAD.

The PPMO and the financial officer will:

- Prepare the financial statements for reporting period
- Make available all the financial information necessary to the auditors.
- Respond to the audit findings and recommendations.
- Submit the audit report to the fund no later than 6 months after the end of the project fiscal year.

The Auditor will:

- perform the audit work including the audit opinion
- Indicate any ineligible expenditures
- Provide a management letter

The Fund will:

- Indicate / appoint the auditor by FMFCL
- Monitor timely submission and review of audit reports
- Follow up on remedial action\apply sanction and /or remedies if relevant including suspension of disbursement and or cancellation of loan balance (Legal Notice is sent to the LPA after 3 months of delay. Suspension of disbursement to the project after 6 months delay.)

TORs of the Auditors

When the auditor is appointed by FMFCL, the IFAD provides the IFAD Handbook for Financial Reporting and Auditing with full description of TOR for auditor describing the scope of audit and responsibility of auditor.

The following additional information can be provided to the auditor upon request:

- a) Organizational charts;
- b) Names and titles of senior managers;

- c) Names and qualifications of officers responsible for financial management, accounting and internal audit;
- d) name and address of any existing external auditor, if a change is made;
- e) Description of information technology facilities and computer systems in use and
- f) Copies of the latest financial statements, financing agreement, minutes of financing negotiations, project design document, and annual work programme and budget, if it is available.

The Audit Report

The Audit Report must include the following elements which are also be reflected in the IFAD Handbook for Financial Reporting and Auditing:

- An opinion on the Project's financial statements
- In addition to the audit report, the independent auditor will prepare a management letter. This will include comment and recommendations on the adequacy of the financial management system, and on the system of internal control. The management letter should also include a follow up section on the status of implementation of previous years recommendations and the observations should be presented in a priority level e.g. High, Medium and Low. The Management letter should also provide management response to the auditor's observations.
- All audit report package listed below should be provided in English and English version should be certified and signed by the auditor:
 - Audit report: Audited Financial Statements with Audit opinion;
 - Management letter.

VI. Implementation Readiness**Table 3: FM Actions Summary: The actions needed to mitigate FM risks are summarised below:**

	Action	Responsible Party / Person	Target Date / Covenants (to be included in FA)
1	PMO with key staff to be recruited	Lead Project Agency	After project entry into force/disbursement conditions
2	Procurement of accounting software	Finance Manager, Project Manager	After project entry into force/disbursement conditions
3	IFAD provides No Objection to PIM.	Finance Manager, Project Manager	After project entry into force/disbursement conditions
4	IFAD provides No Objection to AWPB	Finance Manager, Project Manager	After project entry into force/disbursement conditions
5	PMO provides a list of ICP signatories	PMO management	After project entry into force/disbursement conditions

FM Supervision plan

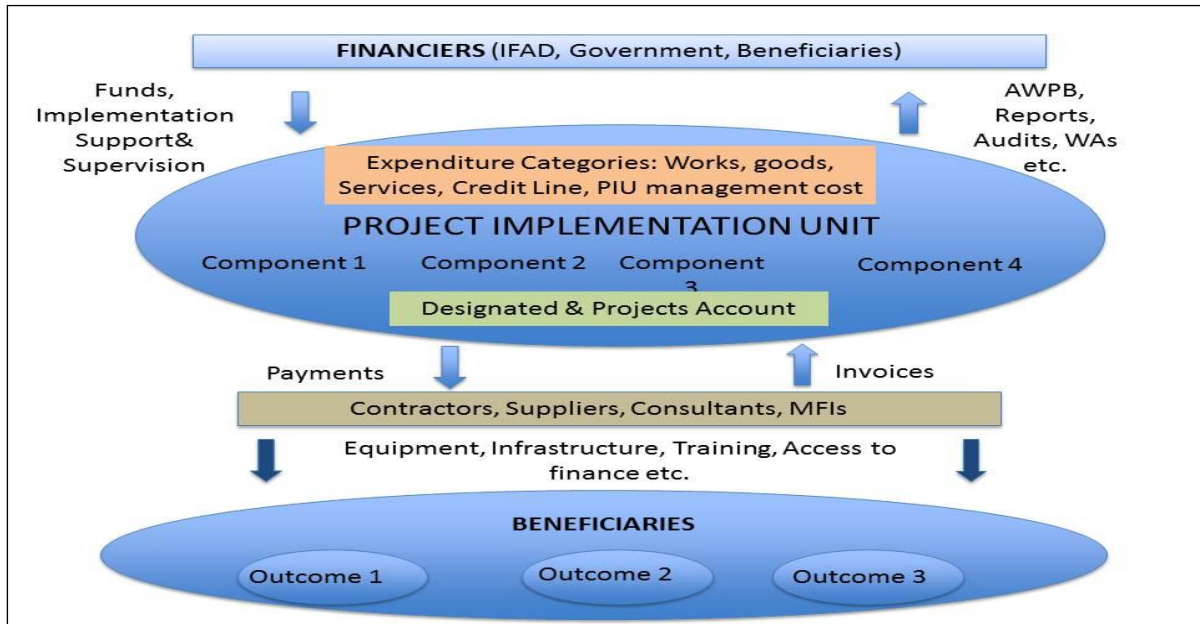
FMS or FO will join the IFAD Supervision mission once a year. In addition, FMS can participate in the Implementation Support Mission every year as needed and if the residual risk increases.

Throughout project implementation, IFAD will conduct annual financial supervisory missions to develop financial management ratings and ensure compliance with the IFAD's requirements. During the supervisory missions, IFAD will assess and monitor the adequacy of the PMO/LPA financial management arrangements such as accounting, budgeting, internal controls, flow of funds, financial reporting and the auditing practices. The key findings and recommendations of the mission will be captured in the Aid Memoire.

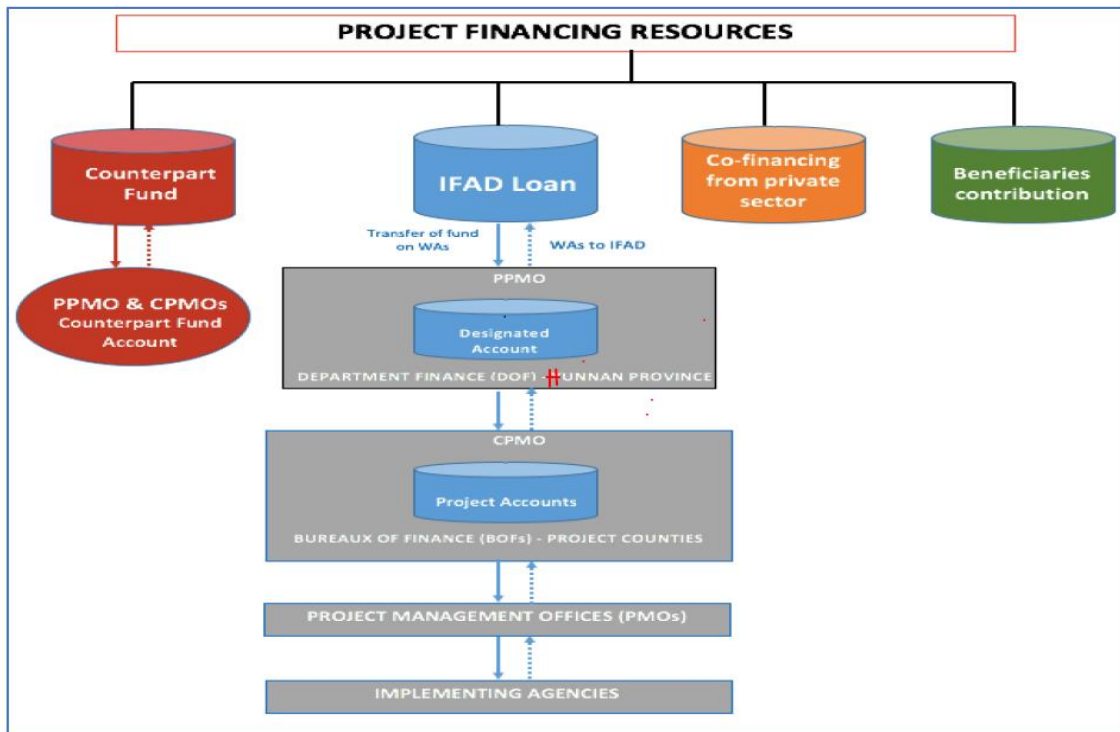
Appendix 1: Flow of Funds Chart

The flow of funds chart of the project is presented here with indication of Special Accounts, project Bank accounts for loan, counterpart and co-financing funds.

Appendix 1a: Flow of Funds Chart (financiers)



Appendix 1b: Flow of Funds Chart (financing resources)



Annex 8 to the Project Design Report

The Project Implementation Manual.

Annex 8 Project implementation Manual (PIM) – was developed in two Volumes where Volume II was prepared by FO in form of a Financial Management Manual of the Project with all details of the financial management processes of the project with relevant appendices.

China

Hunan Green Development Project

Project Design Report

Annex: Annex 5.1 Ethnic Minorities Planning Framework And Free Prior And Informed Consent Fpic

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 5-1: Ethnic Minorities Planning Framework and Free Prior and Informed Consent (FPIC)

Executive summary

At the request of the Government of the People’s Republic of China, the International Fund for Agriculture Development designed a new project titled **the Hunan Green Development Project (HGDP)** in close coordination with the Provincial Forestry Department in the Hunan Province. Despite the transformation in the agriculture sector, China’s production base still relies extensively on smallholder participation. However, the smallholders face constraints in increasing productivity and accessing markets due to the small size of their landholding, limited access to capital, poor productivity, high levels of vulnerability to climate risks and poor integration with markets. The current production practices are not well adapted to climate risks and lead to poor soil management practices, high losses due to inability to withstand the impact of droughts and other climate risks. **The goal of the HGDP** is to promote rural revitalization and enable smallholders to benefit from rural transformation through a private sector led green growth model which is inclusive and environmentally sustainable. The People’s Republic of China has eradicated extreme levels of rural poverty, but consolidation and long-term sustainability of poverty achievements remain a high priority for the Government. The project will contribute to sustain poverty achievements by preventing vulnerable people from falling back into poverty and ensuring that the on-going process of rural transformation and agricultural modernization is inclusive and financially and environmentally sustainable. The project will be implemented over a six-year period. It is expected to be submitted for Executive Board approval in mid-April 2024 and will become effective by June 2024. Its completion is expected by June 2030. **The development objective** of the project is to increase smallholders’ capacity including ethnic minorities for enhanced production and productivity and access to markets, strengthen environmental sustainability and climate resilience, by focusing on three selected value chains namely Bamboo, Oil-Tea Camelia and medicinal herbs in seven selected counties in the Hunan Province. The main target groups of the project will be smallholders especially women, youth and ethnic minorities who will be aggregated / linked to cooperatives, private and state-owned enterprises involved in the three selected value chains. A special effort will be made to ensure that women farmers are part of the decision making and that women led cooperatives and enterprises have preferential access to training, production inputs and access to markets. A gender strategy has been detailed and included as part of the design. An inclusive targeting strategy will also apply with sensitivity for youth and ethnic minorities, where youth employment in the value chains will be promoted.

The project will have three components; Component 1: Smallholder Integration in Value Chains; Component 2: Private Enterprise Led Business Development and Component 3: Project Management & Capacity Building. The main outcomes expected from the project will be (i) Increased production and Productivity; (ii) Climate Adaptation & Enhanced CO2 sequestration and (iii) Increased market share & value addition. These outcomes will lead to higher level impacts in terms of increase in incomes, increased empowerment of women, increased revenue and increased employment of women and youth.

Project area. The project will be implemented in seven counties within five prefectures of the Hunan Province: Yanling County of Zhuzhou Prefecture, Hengshan County of Hengyang Prefecture, Pingjiang County of Yueyang Prefecture, Taojiang County and Heshan District of Yiyang Prefecture, Yuanling and Xupu counties of Huaihua Prefecture.

Table 1. Project area of HGDP

Prefecture	County
zhuzhou 株洲	Yanling 炎陵
Hengyang 衡阳	Hengshan 衡山
Yueyang 岳阳	Pingjiang 平江
Yiyang 益阳	Heshan 赫山, Taojiang 桃江
Huaihua 怀化	Yuanling 沅陵, Xupu 溆浦

In seven project counties, the ethnic minorities take 7.2% of total population, among them, 74.9% live in Yuanling County and another 19.8% are in Xupu County. Miao, Yao, Tujia and Dong are major ethnic minorities in Yuanling and Xupu counties.

Yuanling County was officially classified as the county of ethnic minority population more than half, and there are two ethnic minority townships in Yuanling County, one of them - Eryou Miao Minority Township, is one of the six proposed project townships implemented by the project, with Miao people accounting for 86.3% of total population. **Xupu County** is a multi-ethnic scattered county composed by 25 townships, there are 35 ethnic minorities, such as Tujia, Yao, Miao and Dong, accounting for 12.67% of the total population of the county. There are 28 administrative villages and 2 townships with a minority population of more than 30%.

Among three value chains in the HGDP, **Yuanling** selected camellia oil tea while Chinese medicinal plants will be developed in **Xupu**. The response of county PMO and county Bureau of Ethnic and Religious Affairs of Yuanling and Xupu, and the survey of mission team, consider predictably possible risks cannot be found, and the implementation of HGDP will improve economic status and development capacity of ethnic minority people and communities involved.

The Free Prior Informed Consent (FPIC) plan follows the IFAD How-To-Do-Note on Seeking free, prior and informed consent in HGDP in a culturally sensitive manner. Four steps are formulated - developing socio-cultural and land use assessments, identifying decision-making institutions and representatives, consultations leading to FPIC on the proposed project interventions, and formalizing the consent agreement.

1. A sociocultural and land tenure assessment

(i) Policies and laws relevant to ethnic minority development¹

About the nationality affairs, either national or provincial government has a series of laws and regulations. *The Law of the People's Republic of China on Regional National Autonomy* clarifies the state policies on ethnic affairs. The White Paper Book on this law was officially publicized in 2004 for the first time. *The Law of the People's Republic of China on Regional National Autonomy* is fully applicable to HFRDP. Article 2 in Chapter 1 points out that ethnic autonomy shall be applied in areas inhabited by minorities; Article 28 in Chapter 1 indicates that the ethnic autonomy governments should manage and protect local natural resources, and it has the priority to utilize local natural resources in suitable ways for local development in accordance with the planning of laws or national government. Article 65 also stipulates that when the state to utilize resources in autonomous minority area for development, the interests of minority autonomous region and arrangements in favor of local economic development, local minorities' life and production shall be taken into account. The State should compensate for when natural resource export happens in ethnic autonomous regions.

¹ Social assessment report. European Investment Bank Loan Hunan Camellia Oil Development Project.

In the Preamble of 1982 Constitution, it states that: "The People's Republic of China is a unitary multi-national state built up jointly by the people of all its nationalities. Socialist relations of equality, unity and mutual assistance have been established among them and will continue to be strengthened". Constitution Article 4 indicated that "All nationalities in the People's Republic of China are equal. The state protects the lawful rights and interests of the ethnic minorities and upholds and develops a relationship of equality, unity and mutual assistance among all of China's ethnic groups. Discrimination against and oppression of any nationality are prohibited; any act which undermines the unity of the nationalities or instigates division is prohibited. The state assists areas inhabited by minority nationalities in accelerating their economic and cultural development according to the characteristics and needs of the various minority nationalities. In the struggle to safeguard the unity of the nationalities, it is necessary to combat big-nation chauvinism, mainly Han chauvinism, and also necessary to combat local-national chauvinism. The state will do its utmost to promote the common prosperity of all the nationalities." The *Common Program of Chinese People's Counter Political Consultative Conference* settled in 1949 and the *Constitution of the People's Republic of China* in each amendment have clearly pointed out that the minorities have the freedom to preserve or reform their ethnic customs. In 1994, the CPC HN Provincial Party Committee and HN Provincial People's Government issued a number of preferential policies on ethnic minorities and socio-economic development in their inhabited areas, and the No.23 document of 1994 have actively helped the Ethnic minority to develop forestry economy. The 14th Five-Year Plan of Hunan Province for Ethnic Affairs was promulgated in December 2021, putting forward six specific indicators and 42 key projects in social and economic development, people's livelihood improvement, ecological and civilization construction, rural revitalization, nation community consciousness and ethnic unity and development. The World Bank has assessed that both central and Hunan governments make top-down systematic planning and arrangement in ethnic minority development to create job opportunities for minority residents and improve their living standard and it's required to conduct prior public consultation for relevant plans and projects in accordance with the Interim Regulations on Major Administrative Decision-making Procedures.²

(ii) Forest land tenure policies and laws³

Article III of Forest Law of the People's Republic of China indicate that forest resources belong to the state, except which prescribed by law belong to the collective. Local governments above the County level are responsible for registering, recording and issuing certificates to confirm the ownership or use rights of the state-owned forests and collectively forests, trees and woodlands, private trees and woodland. Legitimate rights and interests of owners and users of forests, trees, woodland protected by law shall not be violated by any unit or individual. The Measures for the Administration of Registration of Forest and Forest Land Ownership stipulate that the owner of forest rights refers to the owner of the ownership or use right of forests, trees and forest land. In accordance with the provisions of the Forest Law and its implementing regulations, the competent forestry department under The State Council or the people's governments of provinces, autonomous regions, municipalities directly under the Central Government, as well as the people's governments of cities divided into districts and autonomous prefectures shall issue forest right certificates, and the registration authorities shall notify the relevant local people's governments of the issue of forest right certificates. The Measures for Handling Disputes over the Ownership of Forest Forest Land stipulate that before the dispute over forest rights is settled, no unit or individual may cut down the trees in dispute, or engage in capital construction or other production activities on the disputed forest land.

July 16, 2008, the State Forestry Administration issued *Regulations on contracting collective forest land*. According to the regulations, all the collective land which had been

² Environmental and Social Systems Assessment - China Green Agricultural and Rural Revitalization Program for Results (Hubei and Hunan), World Bank, December 2022

³Social assessment report. European Investment Bank Loan Hunan Camellia Oil Development Project.

planted trees or vegetation-covered should be contracted with farmers for management, contract period of forest land use rights is 70 years, the contractor can ask for an extension of the contract period. The contracted land can subcontract, as mortgage for debit and credit, and use as investment capital to co-develop share holder. According to the new woodlands contracting policy, contract period is 70 years and contractor can renew the contract period. Woodland contractor can subcontract the operation and use rights, and use forest land property as mortgage, forest land owner can be used as a co-operative capital shares, such property rights arrangements, endue more forest operation rights to the contractor, mobilize the enthusiasm of farmers to use woodland the resources.

2. The specific characteristics of each ethnic minority

(i) Ethnic minorities in Hunan Province

There are 55 ethnic minorities in China, the rights protection of Chinese ethnic minorities has its distinctive characteristics. Comprehensive safeguards, focusing on subsistence rights and development rights, the ethnic regional autonomy system as institutional foundation, the implementation pattern based on the combination of equal protection and special treatment are four main features of Chinese ethnic minorities' rights protection. Therefore, they are integrated in the mainstream of the society, and the government applies preferential policies and support to ethnic minorities in social, cultural and economic development as compared to the majority of Han⁴. According to the seventh census in 2020, the population of 55 ethnic minorities in Hunan Province was 6.69 million, accounting for 10.06% of the total population in the province, and the distribution of ethnic minorities is a pattern of "large co-habitation, small agglomeration", which scattered through the province, comparatively concentrated in Western and southern Hunan. In the province, the main ethnic minorities with long history inhabitation including Tujia, Miao, Dong, Yao, Bai, Hui and Zhuang, who have established ethnic autonomous areas or ethnic townships.

(ii) Ethnic minorities in the project area

In seven project counties, the ethnic minorities take 7.2% among total population, among them, 74.9% live in Yuanling County and another 19.8% are in Xupu County. Tujia, Yao and Miao are major ethnic minorities in Yuanling and Xupu counties.

The total population of **Yuanling County** is 676,000, of which 379,800 are ethnic minorities, accounting for 56.2% of the total. Yuanling was officially classified as the county of ethnic minority population more than half, and there are two ethnic townships in Yuanling County -- Eryou Miao Township and Huochang Tujia Township. In the proposed project townships, the total population is 341,000, of which 299,600 are ethnic minorities, accounting for 87.9% of the total population. Eryou Miao Township is one of the six proposed project townships implemented by the project, with a total population of 40,540, of which 36,842 are ethnic minorities, accounting for 90.9% of the total population, and 35,000 Miao people, accounting for 95% of the ethnic minorities.

Xupu County is a multi-ethnic scattered county composed by 25 townships, the total population is 940,000, Han and minority ethnic groups reside in a pattern of "large co-habitation, small agglomeration". There are 35 ethnic minorities, such as Tujia, Yao, Miao and Dong, with a total of 119,100 people, accounting for 12.67% of the total population of the county. There are 28 administrative villages and 2 townships with a minority population of more than 30%. In Yanxi Township, Gezhuping Town and Beidouxi Town, there lives a most original ancient ethnic group - Hua Yao (a branch of Yao), who still retain their national language, clothing, customs etc.

(iii) Specific characteristics of each ethnic minority

⁴ Hao Yaming. On Chinese Characteristics of Human Rights Protection of Ethnic Minorities. Guangxi Ethnic Studies, Sum No. 113, No. 3, March 2013.

The specific characteristics of Miao and Yao was described in the Ethnic Minorities Development Plan of the World Bank Hunan project as follow⁵,and the characteristics of Tujia and Dong people are presented based on the information from Xupu county PMO.

a. Miao

History of Miao

Miao is one of the oldest ethnic groups in our country, with a large population, a vast distribution and a glorious national history and culture. The ancestors of the Miao can be traced back to the Chiyou tribe, which was active in the Central Plains during the primitive society era. In Shang and Zhou Dynasties, Miao ancestors began to establish "three Miao States" in the middle and lower reaches of the Yangtze River and engaged in agricultural rice cultivation. Miao people have migrated many times in history, the general route is from the Yellow River basin to Hunan, to Guizhou, to Yunnan, and basically formed the current distribution pattern in the Ming and Qing dynasties.

Miao people have their own language, belongs to the Sino-Tibetan Miao-Yao language family Miao language branch, there are eastern, central and western three dialects, the text has the old and new two pinyin characters, but the access is limited. Due to the long-term coexistence with the Han, most people now speak Chinese, and the number of people who retain the Miao language is decreasing day by day. Especially in Yuanling, not many people can speak the Miao language.

Miao people dress. Men mostly in front of the jacket, long and small sleeves, short and large pants, green cloth wrapped legs. Head bag cloth, head cloth and blue and white cloth two kinds, 3.3 ~ 10 meters long around a cross, as big as a hat. Women generally wear full cardigan clothes, clothes are large and long, sleeves are large and short, no collar; Roll lace or embroidery on the chest and cuffs, count yarn, and add balustrade petals between them. There are also switches and swings, both front and back edges embroidered with cloud hooks. Under the wide leg pants, pant legs short and large, the edge rolling lace or embroidery, yarn count. With green or patterned papa head, the head layer winding, several feet long. Like to wear silver ornaments, such as hairpin, earrings, bracelets and so on. Every festival, marriage, and wear a variety of collars, silver buttons, shawls, silver crowns and so on.

In the past, the Miao people practiced intermarriage within the ethnic group and rarely intermarried with other ethnic groups. With the expansion of exchanges, the intermarriage with the Han has been increasing. The traditional custom is that men and women are free to love, and they get to know each other by driving to the market and going to relatives. In the succession system of the Miao people, generally speaking, the men inherit the family's land property, and the women inherit the family property prepared by their parents, especially the mother's property, such as silver jewelry and clothes.

There are many Miao festivals, mainly: "March 3", which is the traditional song and dance festival of the Miao people in Xiangxi. Since ancient times, it has been a traditional auspicious day for the Miao people to commemorate their ancestors, celebrate new life and praise life. On this day, the Miao people automatically concentrated on the song field, to participate in singing, listening to songs, dancing, and enjoying themselves. "June 6", which is an ancient custom, is the Miao people to commemorate the six male and female ancestors, hoping that they can also give birth to six male and six female, and multiply the descendants of ancestor worship activities. "Catch the autumn", every year on the "Beginning of Autumn" day, the Miao people stop farm work, wear festive costumes, invite friends to accompany, and excitedly rush to the autumn field from all directions to participate in or watch various recreational activities. The "Incense dance Party", in which men, women and children dance around the fire, and other recreational activities are held.

Miao people believe that all things have spirit or multiple gods, worship ancestors, worship nature, mainly believe in nature worship, totem worship, ancestor worship and other

⁵ Ethnic minorities development plan of Hunan Forest Restoration and Development Project. World Bank.

primitive religious forms. They will Panhu as a totem worship, generation legend of the "God mother dog father" story, the Panhu as his ancestor, worship Chiyou especially, worship Nuogong Nuomu, worship the Heavenly King. Miao sacrifices in the grand scale and the most rich national characteristics to eat pig, eat cattle and dragon three, there is a "Huan Nuo Yuan" sacrificial activities are also popular in the Miao.

Livelihood of Miao

Before the founding of People's Republic of China (PRC), the Miao people were economically vulnerable. Since PRC, the people became masters of their own country and their living conditions improved to some extent. After the Third Plenary Session of the 11th CPC Central Committee, the household joint contract responsibility system was implemented through the country, and the Miao people made full use of the good natural conditions to engage in rice production, supplemented by sweet potatoes, corn and other grains. Rice is generally planted one season a year, and the yield is not high, the rest of the time in the field to plant rape, or let it winter, to the next year to plant rice. The rice yield is 250-400 kg/mu. Some places are relatively more sloping land, where they grow corn, sweet potatoes, etc., mostly in traditional ways, and their income is not high. On some barren slopes, cattle, sheep, pigs, etc., are mainly raised to eat themselves, and not many are sold.

In recent years, the Miao area has gradually adjusted the agricultural industrial structure, fruit planting as an important measure to strengthen the county and enrich the people, strengthening the development of mountainous areas, and promoting fruit production. At the same time, due to the accelerated pace of urbanization, the rapid development of vegetables with the area continuing to expand, the output increasing, the quality improving, and the pollution-free vegetables and pure vegetables are widely developed. Animal husbandry industry goes simultaneously and has become a good way for farmers in Miao township to get rid of poverty. After the implementation of the contract responsibility system in rural forestry production, the enthusiasm of the people in Miao Township for afforestation and forest protection has been further increased, and the forestry production has been developed faster, and many large afforestation households have emerged in various places. The launch of a series of key forestry projects, especially the implementation of the project of returning farmland to forest, has become an important way to increase the income of forest farmers, and ushered in the great development of forestry in the Miao area. The former barren mountains are gradually covered by trees, the climate in the region continues to improve, and the new scene of harmonious coexistence between human and nature is gradually realized. The tertiary industry and migrant labor to urban are also the important ways for people in Miao area to improve their income.

There are gender and age differences in the family division of labor, men do heavy work outside, such as plowing, tilling, etc., women do housework at home and take care of children, feed pigs, cows, chickens, ducks, and do some farm work in the field when busy. The elderly and children are engaged in auxiliary work such as housework and herding sheep and livestock.

B. Yao

History of Yao

The Yao people are with a long history. As early as the Chiyou era, they became a member of Chinese family. There are five different opinions about the origin of Yao people: one is that Yao people originated from "Shan Yue". The second is that the Yao originated from Changsha and Wuling. Third, it is believed that the Yao originated from "Wuxi Man" and their original residence was between Hunan and Guizhou. Fourth, it is believed that the sources of Yao are diversified. Fifth, it is believed that the Yao originated from "You people" in the Yin Shang and Spring and Autumn Periods.

The houses where the Yao people lived in the old days were very simple. They were generally grid houses supported by fir wood strips, covered with thatch or fir bark, and

surrounded by fir strips or bamboo slices, commonly known as "a thousand capital heads under the ground". Nowadays, the living conditions of the Yao people have been greatly improved, and most of them now live in houses with slab walls, earthen walls and brick tiles.

Yao men wear cloth buckle on the front collar cloth shirt, the length is different, head is covered with a green cloth and trousers are wide and short. Women wear a front or left side collar cloth shirt, sleeves, feet are widened edge, and embroidered with flower patterns. The head package is 2 meters long and 0.3 meters wide blue and white cloth, with various patterns at both ends and a square pattern in the middle. Wrap it in a pointy foot shape. Pant legs wide, embroidered border. Some women like to wear embroidered aprons. Nowadays, except a few Yao inhabited areas still maintain traditional costumes, the daily costumes in most areas are the same as those of the Han.

The Yao have their own language, but the subgroups are complicated and vary greatly from place to place, and some can't even talk to each other. There is no national language in history, and Chinese is generally used. The folk literature of Yao has a long history and is very rich. There are myths and legends that reflect the origin of human beings and the origin of Yao, such as Panwang Da Ge, Panhu Legend, Jiang Guao, Fuxi Brother and Sister, etc.

In the past, Yao people generally did not marry with other ethnic groups, and the custom of taking in son-in-law was common. Young men and women dating freely before marriage. There are also those who need to seek the consent of their parents and ask for a match before they can get married.

Yao people are good at singing and dancing. Almost all men, women and children can sing and dance. "Talk and laugh" and "Long encouragement" have their own characteristics. Every birthday or other festival, on the evening after the arrival of the celebrating guests, a "talk and laugh" will be held. Although the way of "talking" and "laughing" is mainly, the focus is still singing. There are many young men and women get knowing each other through "talking and laughing". When "talking and laughing", it is generally all night until breakfast the next day, and some "talking and laughing" last two or three nights. Changgu is a folk dance art of Yao. According to legend, Yao ancestor Pan Wang went to mountain hunting, unfortunately was killed by wild sheep under the empty tung tree, wild sheep fled, Pan Wang's six sons heard the news, struggled to hunt, wild sheep was finally obtained. In order to vent their father's hatred, they cut down the hollow tung tree, covered with the skin of sheep, made a long drum with two ends and a small middle, and then beat the long drum and danced for three days and three nights to worship the Pan King. For thousands of years, the Yao people have been passing down this sacrificial activity as a tribute to their ancestors.

There are many festivals of Yao, among which Pan Wang Festival is the most lively. According to legend, Pan Hu, the founder of the Yao, made great achievements on the 16th of October of the lunar calendar and was named "Pan King" by Ping Wang. Later, on this day, the descendants of the Yao people held a celebration to commemorate Pan Wang, called "Pan Wang Festival". On the festival, sing the song of Pan Wang, dance long drum, praise Pan Wang Ende, express the Yao people's respect and worship for Pan Wang, pray for peace, good luck, good weather, and a good harvest next year.

Livelihood of Yao

The Yao is a mountain ethnic group, adapting to different mountain environments and forming different living patterns. The mountainous resulted scattered cultivated land, scattered residential areas with small scale of few dozen households, and inconvenient transportation condition. In the mid-mountain zone, there are more dry land and less paddy fields, and the scale of residential areas ranges from a dozen to twenty or thirty households; In the low mountainous areas and river valleys, the residential areas are generally dozens of households.

In the early 1980s, the Yao people began to implement the land contract responsibility system as elsewhere in China, the use right of farmland and forests was contracted to each household for more than 30 years according to the national policy.

The traditional livelihood of Yao people is a mountain subsistence economy based on mountain farming and combining farming, hunting and gathering. The major crops were rice, corn, sweet potato, wheat, etc. Two crops were planted a year with rice, sweet potato, or corn in spring, and wheat or rape in autumn. Vegetables were cabbage, radish, beans, pumpkin, cucumber, etc. And cooking oil was from oilseed rape. Raising chickens, pigs, cattle was the most common, some families had goats. Hunting was practiced in autumn and winter, and NTFP collection in spring and summer used to be an important source of non-staple food for the Yao people, and also the main local specialties for the Yao people to exchange with outside.

In the traditional livelihood before, the individual family was the basic production unit. Heavy physical work, such as slash-and-burn cultivation, raking and plowing, and hunting in mountain forests, was generally undertaken by men; while sewing, washing and darning, cooking, taking care of the young and old were generally undertaken by women, and other work was completed by family members. During the busy farming season, relatives and neighbors carried out labor cooperation by helping and exchanging labors.

Since the 1980s, the livelihood pattern of Yao people has changed a lot. First of all, the subsistence economy changed to the marketing economy, the market orientation of production became more and more conscious, and production, life and consumption increasingly depended on the market; Secondly, more and more rural labor migrated to urban, and become the main income source.

C. Tujia

The Tujia call themselves "Bizka" or "Bijika", and Tujia has a long history. Before the Song Dynasty, the Tujia and other ethnic minorities were not separated in the historical records, and were collectively called "Wuling Man" in the Qin and Han Dynasties, called "Wuxi Man" in the Sanguo period and "Xizhou Man" in Tang Dynasty. In the Song Dynasty, titles of "Turen" and "Tuding" began to differentiate with other ethnic minorities. In Yuan, Ming, Qing periods, known as "Turen", "Tumin", "Tuman". During the period of the Republic of China, the identity of Tujia was not recognized. After the founding of the People's Republic of China, the government sent investigation teams several times to carry out field surveys in Tujia areas. On October 3, 1957, with the approval of the CPC Central Committee, it was officially recognized as a single ethnic minority - Tujia. There are five main sources of Tujia. First, from the perspective of the administration history, Tujia inhabited area belonged to the territory of Baguo in ancient times; Second, from the perspective of development history, there is a clear and coherent clue of Ba people's activities in the area of Hunan, Hubei, Sichuan and Guizhou, that is, Ba - Man, Yi - Tu; Third, from the perspective of religion, both Tujia and Ba people worship Linjun Baihu; Fourth, from the perspective of customs and habits, Tujia's activities such as Baishou and Tiaosang are closely related to the Ba people; Fifth, from the archaeological findings, a large number of Ba cultural relics, such as Huniu, have been excavated in the Tujia settlement area. The Tujia in Xupu is of the same lineage as the Tujia in the northwest of Hunan, southwest of Hubei, southwest and southeast of Sichuan.

The staple foods of Tujia people are rice, maize, sweet potato, wheat etc. Women's dress for short clothes big sleeves, left front, rolling with 2-3 layers of lace, edging simple pants, head with green silk, feet wrapped green gaiters, wear embroidered shoes; The men's coat is a green and blue button-down cloth, under the white head pants, the head with a green scarf, the feet wrapped with green gaiters. A woman's hair hangs in braids before marriage, and her head is formed into a bun after marriage. Houses are built nestling under a mountain or near a river, into the shape of a tiger sitting, there are also many stilted houses, mainly wooden houses, built side rooms (transverse houses). Men and women often love each other and get married through singing in antiphonal style. There is a custom of Wedding Lament, and asking unmarried women in the village to accompany

crying a month or half a month before the wedding. Two days before the wedding, the bride accompanied by her sisters, would go to each neighbor's house to cry with a fixed singing and content, mainly to tell the parting feelings and appreciation of love and care. The Tujia people practiced hanging coffin burial and cave burial in ancient times, and now under the influence of the Han, wooden coffin burial is practiced. Worship ancestors, believe in Taoism, Buddhism. "Guogannian", that is, one day ahead of the New Year, is an important festival.

D. Dong

The Dong people called themselves "Jin" and the Han people call them "Dong families". The title of Dong evolved in the history. Dong was called "Qianzhong Man" from Warring States period to Qin Dynasty, and "Wuling Man" or "Wuxi Man" in Han Dynasty. During the Wei, Jin and Southern and Northern Dynasties, Dong was called "Yue" or "Liao". In the Tang Dynasty, besides "Liao", Dong was also called "Liao Hu" or "Wu Hu". In Song Dynasty, They were called "Ge Ling", "Ge Lan" or "Ge Lu". Ming Dynasty called "Dong Ren" or "Dong Miao". In the Qing Dynasty called "Dong Min" and "Dong Jia". After the founding of the People's Republic of China, this ethnic minority was formally named Dong.

The Dong people are mainly engaged in agricultural production with rice and maize. Wind and Rain Bridge is a building with unique style in Dong area. Dong men wear a short jacket and a big turban. Women's clothing is divided into two types of skirts and trousers, the top front without a collar, cuffs and trousers are inlaid with lace, belt, leg binding, bag head. Dong staple food is mainly rice, good at drinking rice wine, loving sour and spicy taste, and processing "sour fish", "sour meat", "sour pepper", "sour radish", which could be stored for more than ten years. Festivals vary from place to place, and most Dong areas celebrate the Spring Festival. Dong people believe in multiple gods and worship natural objects. Dong minority chorus is a non-accompany, multi-sound chorus folk art.

3. Possible risks posed by the project and strategy for working with ethnic minorities

(i) Possible risks posed by the project

Among three value chains in the HGDP, **Yuanling** selected camellia oil tea while Chinese medicinal plants will be developed in **Xupu**.

Camellia oil tea is the most important product of camellia, known as "longevity oil", high nutritional value, unsaturated fatty acid content is higher than peanut oil and rapeseed oil, up to 93%. Camellia oil tea can effectively prevent and treat cardiovascular and cerebrovascular diseases and is a healthy high-grade edible vegetable oil recognized and promoted by FAO. Camellia oil tea is widely planted in China with decades of promotion by the government. The General Office of the State Council (State Issued [2007] No. 59) Opinions on promotion of the development of oil plant production; the State Forestry Administration suggestion on the development of camellia industry (SFA [2006] No. 274); National Camellia Industry Development Plan (2009 to 2020) "(State Forestry Administration, July 2009); Views on accelerating the development of tea oil industry of Hunan Provincial People's Government (HGI [2008] 22); the People's Republic of China National Standard of Camellia High-yielding Forest "(GB7906-87); LY/T 1557-2000 priority economic forest base construction technical regulations (State Forestry Administration); LY/T 1328-2006 Camellia Cultivation Techniques (SFA)⁶. Hunan is one of the core provinces for camellia oil tea plantation, together with other more 14 provinces, China will develop camellia oil tea plantation to 90 million mu in 2025.

Traditional Chinese medicine is the material basis for the development of traditional Chinese medicine and health industry. By the end of 2020, the planting area of Chinese medicinal materials in China is about 5.959 million ha. The under-forest economy is a new thing that has emerged in the field of agricultural production, and interplanting of Chinese

⁶ Social assessment report. European Investment Bank Loan Hunan Camellia Oil Development Project.

medicine plants is an important component of under-forest economy. In 2013, pilot projects were launched in Guangdong, Jiangxi, Heilongjiang, Sichuan and other provinces to subsidize the under-forest Chinese medicine plantation, and the central government invested CNY 380 million to subsidize the under-forest Chinese medicine plantation. "The Guiding Opinions of the National Forestry and Grassland Administration on Promoting the High-quality Development of the Forest and Grass Industry" issued in 2019 proposed to "consolidate and enhance the development level of the economic industry under the forest", and to provide policy support for the under-forest Chinese medicine industry from fostering plantation and formulating technical regulations. In 2020, the National Development and Reform Commission and 10 other ministries/commissions issued "the Opinions on the Scientific Use of Forest Resources to Promote the High-quality Development of Woody Grain and Oil and Under-forest Economy", proposing to actively develop under-forest farming and related industries such as medicine plants, and put forward supporting policies from the use of forest land, industrial integration, taxation and finance. Under the promotion of relevant national policies, many provinces have successively issued support policies for the development of forest source Chinese medicinal materials industry. Sichuan, Heilongjiang, Yunnan, Guizhou, Shaanxi, Jiangxi and other provinces have formulated policies and preferential measures to accelerate the development of under-forest Chinese medicine plantation⁷. The under-forest Chinese medicine plantation in Hunan is vast, under-forest interplanting medicinal materials such as rhizoma polygonati, cortex phellodendri, polygonatum odoratum and dioscorea zingiberensis are widely planted in mountain areas in Hunan as well as in other provinces.

Thus, Camellia oil tea and under-forest Chinese medicine plantation are NOT cultural heritage in HGDP project area, and the project does NOT involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes.

Through the discussion with county PMO staff of Yuanling and Xupu, other possible risk to the ethnic minorities posed by the project cannot be found. For caution's sake, PMO staff of both counties discussed issue with county Bureau of Ethnic and Religious Affairs, and "no predictably possible risk" was confirmed.

(ii) Strategy for working with ethnic minorities

Building on the World Bank assessment of the existence of a comprehensive ethnic minority development policies such as the Hubei [Hunan] Provincial Government and Implementation Opinions on Strengthening the Risk Assessment of Social Stability of Major Decisions under New Circumstances (XBF [2021] No. 27) promulgated by Hunan Province in December 2021, which stipulates respect for minority opinions, ensure ethnic equality, and respect minority customs; and the 14th Five-Year Plan of Hunan Province for Ethnic Affairs was promulgated in December 2021, putting forward six specific indicators and 42 key projects in social and economic development, people's livelihood improvement, ecological and civilization construction, rural revitalization, nation community consciousness and ethnic unity and development; Ethnic minorities in the project area are in general well integrated in the existing socio-economic context, have livelihood strategies similar to those of the other rural populations, are not excluded from existing economic opportunities, are not discriminated, and have not distinct needs from the rest of the population⁸. The development needs of ethnic minorities in the project area are to be benefit from rural transformation through a private sector led green growth model as the other rural population.

⁷ Wang Feng, Chen Xingliang. Study on High Quality Development of Forest Source Chinese Medicinal Materials Industry in China. Chinese Forestry Economics. No. 3 (Total 147), May 2022.

⁸ Working paper: Social Environment in Context of Poverty, Targeting, Gender and Youth.

The project will further utilise **IFAD's core targeting approach** in the country, and would apply the ongoing geographic and inclusive targeting strategy in the selection of smallholder farmers and disadvantaged target groups. The project will therefore target the smallholder farmer households including vulnerable and ethnic minority smallholder farmer household. The criteria of project village selection will ensure the project targeting to the above-mentioned groups, (i) high potential for the production of the selected high value commodities with the largest potential for outreach to smallholders; (ii) high interests of selected enterprise to expending the production; (iii) high potential for developing standard farmers' cooperative; (iv) the priority for the former poor village; (v) the priority for the village with the potential of developing women-led cooperative; (vi) priority to the ethnic minority village.

The project will facilitate the integration of smallholder farmers including ethnic minorities into the selected value chains by a range of business models that enable the smallholder farmers to receive technical support, input provision and marketing access, and will include cooperatives as a key institution for smallholder farmers and capitalize on their role as investor-owned enterprises or land-shareholding cooperatives which gives members an opportunity to earn wages, secure land rents or a share in the profits.

From preliminary estimates provided by the Counties, it is expected that the HGDP will be able to reach around 43,500 smallholder households. It is expected that women and youth beneficiaries of the project will comprise 50% and 30% of the total beneficiaries. The Project will rehabilitate or develop 199,5000 mu⁹ or 13,300 hectares of land under the three crops. This includes 5,000 hectares of bamboo, 4800 hectares of Camellia trees and 3,500 hectares of Chinese medicinal plants. In which, the project will support 50,000 mu or 3,330 ha Camellia trees in Yuanling County, and 20,500 mu or 1,370 ha Chinese medicinal plants in Xupu County.

The project includes that all people-centred indicators will be disaggregated by sex, age and ethnic groups.

As EIB project document stated, minorities are the key beneficiaries of its Camellia project. The implementation of the project can promote their communication and exchanges with the outside and thus obtain more development opportunities. It will also improve the ecological environment of ethnic minorities and help them to increase income from forests. Overall project the participation opportunity for minorities and mainstream society (Han) is equal. The implementation of the project will impact on regional economic development in ethnic minority areas, for example, improvement of environmental quality, positive impact on the overall quality of beneficiary. The project can effectively promote the sustainable development of ethnic minorities, narrow the gap between ethnics, promoting equality of ethnic groups¹⁰.

4. The Free Prior Informed Consent (FPIC)

The World bank assessed that both central and Hunan governments make top-down systematic planning and arrangement in ethnic minority development to create job opportunities for minority residents and improve their living standard and it's required to conduct prior public consultation for relevant plans and projects in accordance with the Interim Regulations on Major Administrative Decision-making Procedures. The Free Prior Informed Consent (FPIC) plan follows the government regulation cited above and the IFAD How-To-Do-Note (2021) on Seeking free, prior and informed consent in IFAD investment projects.

What is free, prior, and informed consent?

⁹ 1 ha = 15 mu

¹⁰ Social assessment report. European Investment Bank Loan Hunan Camellia Oil Development Project.

Indigenous peoples have the right to self-determination, as well as the right to develop priorities and strategies for exercising their right to development – in other words, the right to participate fully and effectively in decision-making processes that affect them.

IFAD has a duty to ensure they can exercise these rights – and that includes ensuring free, prior and informed consent (FPIC) for grant and loan recipients.

- Free means no coercion, intimidation, or manipulation was used to obtain consent.
- Prior means that consent is sought sufficiently in advance, with enough time given to respect indigenous peoples' consensus processes.
- Informed means that the information provided covers (at least) the nature, size, pace, duration, reversibility, and scope of the proposed project or activity.

FPIC aims at improving the effectiveness of investments and at enhancing the community ownership of the investment, its results, and moreover, its sustainability.

Under HGDP, the PPMO is responsible for seeking and obtaining FPIC. FPIC is methodologically solicited through consultation and the participation of communities and local institutions at specific stages of the project cycle. Under HGDP, the CPMO will be responsible for seeking FPIC with technical support from the PPMO.

Free, prior and informed consent should be sought sufficiently in advance of commencement or authorization of activities, taking into account ethnic minority' own decision-making processes, in phases of assessment, planning, implementation, monitoring, evaluation and closure of a project.

FPIC is a proactive approach to identify development pathways with local communities and it is applied in two scenarios (IFAD, 2021):

- When IFAD-funded projects are likely to have an impact on the land access and use rights of rural communities
- When IFAD-funded projects are targeting rural areas that are home to indigenous peoples.

Based on the above two scenarios, FPIC needs to be sought either during project design or during project implementation.

Step 1: Developing socio-Cultural and land use Assessments

The socio-cultural assessments will establish:

- The community members in the project area who and where might be affected and who can gain more rights through careful scheme design based on FPIC process, and who have the right to give or withhold consent;
- Customary laws, informal rules and organizing practices;
- Types of livelihoods and resources communities depend upon; including the mapping of existing ethnic minorities traditional knowledge and practices that can be potentially promoted
- Land use mapping indicating existing land use and land use as proposed by the communities to accommodate the project, and as agreed with the village authorities;
- Institutions, governance systems and decision-making process;
- Existing dimensions of traditional leadership (roles and status) and traditional mutual support and solidarity/reciprocity mechanisms etc.;
- Social, economic, cultural and spiritual relations with lands; and,
- Possible consequences for local communities resulting from the change on the status of land and resources emerging from the proposed schemes.

Step 2: Identifying Decision-Making Institutions and Representatives

In line with the existing governance system of the minority community, the key institution is the villagers' committee which is elected by the villagers according to Organic Law of villagers' Committees, other key institutional actors identified by social-cultural assessment will also be involved.

Step 3: Consultations leading to FPIC on the proposed project interventions

Following steps 1 and 2 above, consultations will be held with the target communities in selected villages before planning of interventions is initiated. The consultations will:

- Confirm that the project will support community-driven initiatives;
- Share the objective and scope of the proposed activities and investments with the communities directly, or with villagers' committee and identified community's representatives;
- Clearly inform the community on the actors financing and implementing the project and their respective responsibilities;
- Provide clear and transparent information on the benefits and risks of the project;
- Share the findings of the socio-cultural, land use and environmental assessment and reality check/confirmation of findings;
- Ensure inclusive participation of all groups (men, women, young people, the elderly, etc.);
- Confirm project related land tenure status of the land in the selected village;
- Record and address questions, concerns, opinions and comments and seek agreement.

Step 4: Formalizing the Consent Agreement

Once project activities and project sites requiring FPIC agreement are identified, this will be formalised in a written form. The effective time at which the consent agreement would be formalised will be agreed upon during the consultation process and needs to be formalised before any investment is made.

The format for a consent agreement would, among others, include:

- Project activities on which consent is provided;
- Respective expectations;
- Proposed project duration, expected results and activities;
- Participatory monitoring and verification plan and procedures;
- Identification of grievances procedures and mechanisms;
- Terms of withdrawal of consent;

The FPIC Agreement and record of process will be made available through means that are accessible to all stakeholders and parties involved.

(i) Disclosure

IFAD's Policy on the Disclosure of Documents enables project design documents to be disclosed prior to the Executive Board session at which the project is to be considered. Thus, this FPIC Implementation Plan will be disclosed together with the Programme Design Report (PDR), the SECAP and ESCMP, to be submitted for IFAD review before the Executive Board.

(ii) Documenting the FPIC Process

FPIC process will be documented through minutes of consultations, videos and audio where feasible, and FPIC agreements documents, also keep records of consultations undertaken:

- how participants were selected;

- their roles or accountability links to their communities;
- how they were invited;
- which consultations they participated in;
- what documentation/information they received beforehand, and in which mean;
- who participated;
- what was discussed.

(iii) FPIC agreements

Often FPIC is expressed as an agreement between CPMO and the involved local communities. These agreements should clearly articulate: what has been agreed (e.g. issues, commitments, time frames, budgets, roles, responsibilities); who entered into the agreement (clearly identifying the individuals involved as well as their title and role); and what mechanisms have been set up to maintain dialogue and address disagreements.

(iv) monitoring and evaluation

FPIC will be included in the monitoring and evaluation by ethnic minority disaggregation of project indicators, and taking track the implementation of FPIC mechanisms.

(v) Budget

The budget for IPPF and FPIC related activities are included in management budget.

9.3.5 Grievance Redress Mechanism (GRM) for the HGDP Project

IFAD requires to adopt an easily accessible grievance mechanism at project-level in order to receive and resolve concerns and complaints of people who may be adversely affected or potentially harmed by IFAD-supported projects that fail to meet the SECAP Standards and related policies. Furthermore, IFAD requires that project-affected people are informed about the existence and functioning of this mechanism in any easily understandable form and language, and to integrate it into the overall community engagement strategy. The grievance redress mechanism should incorporate existing formal and informal grievance mechanisms, strengthened or supplemented as needed for each specific project, and in proportion to the expected risks and impacts of the project. Project-affected people may use the grievance mechanism without retribution or reprisal, and the grievance mechanism should not impede access to other judicial or administrative remedies available under national law or through existing arbitration procedures or other accountability mechanisms.

Building on existing Hunan Provincial policies and practices on information disclosure and grievance redressal, and also building on existing GRMs at community and enterprise GRMs, HGDP will adopt an easily accessible grievance mechanism at the project-level to receive and resolve concerns and complaints of people who may be adversely affected or potentially harmed by the project or harbour any grievance in terms of their participation, any negative fallout or impact, etc. The community grievance redress mechanism (GRM) consists of four levels: firstly, grievances are reported directly to the relevant PIUs to seek a solution; second, grievances are reported to the village or community committee for address; thirdly, grievances are reported to the township government or sub-district office for coordination and address; fourthly, grievances are reported to the county PCPBs or the county head's hotline/mailbox, etc., which includes a mechanism of collection, initiation within 7 days, and solving within two months. In addition, residents can resolve more serious disputes through civil actions at court. In general, the GRM is normative and effective. An enterprise GRM basically has two aspects: First, workers' grievances: Workers' grievances are handled through a three-tier labor dispute resolution mechanism, namely, the enterprise labor disputes and redressing mechanism, the township

government's labor dispute mediation center and the county government's labor mediation center. On the enterprise level, workers can seek a solution through the enterprise/factory manager mailbox, or the trade union. If any dispute cannot be addressed satisfactorily, the worker can go through the government mediation mechanism, or seek solution by labor arbitration. Second, the enterprise sets up an external relations department, and assigns a contact and a telephone number to collect complaints and suggestions from the public.

The Project will establish a Grievance Redress Mechanism (GRM) designed to seek/generate feedback from and to project stakeholders and address/ respond to grievances, problems, issues or complaints related to project activities and project environmental and social performance. The Project will ensure through the GRM that all project stakeholders will be aware of their rights to access and/or will have access to the GRM at all project management levels, which will be provided in a transparent manner free of costs and without fear of reprisal or retribution on the part of aggrieved parties. In addition, the Project's GRM will help ensure that the rights and interests of project stakeholders are protected from unforeseen lapses in said project performance and that all concerns arising therefrom in all project phases will be effectively addressed. To achieve these ends, the Project will regularly engage project stakeholders and provide them information on the processes and means of raising and addressing grievances through the GRM.

The project will follow IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals and communities to contact IFAD directly and file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP.

IFAD's Grievance and Redress Mechanism shall be fully explained to stakeholders during the programme's start-up workshop and to beneficiaries during the programme's activities. The complainants should first bring the matter to the attention of the County Project Management Offices (CPMOs) of the County Forestry Bureau (CFB) or the Provincial Project management Office (PPMO) of the Provincial Forestry Department (PFD). If the PMOs or PPMO do not adequately respond, the matter may be brought to the attention of IFAD. The issue may also be brought straight to IFAD if the complainants feel they might be subject to retaliation if they bring it first to the PMOs or the PPMO.

Grievances shall be addressed at the field level by the project team which will be the first layer of redressal mechanism. If the grievance is not resolved at the field level, it will be escalated to the PPMO and then to IFAD who will be responsible for addressing grievances related to violations of the Programme's SECAP reflecting IFAD's social and environmental policies and standards.

As provided by IFAD's Policy on prevention and response to Sexual Exploitation and Abuse (SEA, 2018), all contracts with project personnel, contractors, service providers and other third parties, that are funded with IFAD funds, must include provisions: (i) for prohibiting acts of SEA; (ii) that establish the obligation to immediately report to IFAD or the Government incidents of SEA; and (iii) that establish immediate termination of contract based on proven acts of SEA.

Likewise, all contracts with contractors and service providers and other third parties must include provisions for the protection of labour rights and working conditions.

All grievances (including reports on SEA and violations of worker rights and conditions) received and action taken to address them will be reported to the relevant PMO, PPMO and the Steering committee. The CPMOs and the PPMO shall ensure that all complaints received and actions taken are included in the progress reports to IFAD.

China

**Hunan Green Development Project
Project Design Report**

Annex: Annex 5.2 Stakeholder Engagement Plan Revised 27022024

Mission Dates: 21/10/2023-04/11/2023
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Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 5.2 STAKEHOLDER ENGAGEMENT PLAN

1. INTRODUCTION

1.1 Project Rationale

IFAD's comparative advantage lies in its considerable experience of connecting smallholder producers to markets, helping smallholders adapt to climate risks, implementing effective strategies for agriculture value chain development through public private and producer partnerships, integrating women and youth in value chains, and demonstrating innovative strategies for rural revitalization. Despite the transformation in the agriculture sector, China's production base still relies extensively on smallholder participation. However, the smallholders face constraints in increasing productivity and accessing markets due to the small size of their landholding, limited access to capital, poor productivity, high levels of vulnerability to climate risks and poor integration with markets. The current production practices are not well adapted to climate risks and lead to poor soil management practices, high losses due to inability to withstand the impact of droughts and other climate risks and inability to capitalize on the potential for climate change mitigation from agro-forestry particularly from bamboo plantations, and the under-forest economy. IFAD has considerable experience in supporting commercially and environmentally sustainable value chains. It has strengthened its approach of private sector led development to ensure that benefits accrue to smallholders and is now exploring approaches for enhancing their capacity to link them to carbon markets. IFAD's value addition in the project lies in fostering sustainable institutions for smallholders, facilitating sustainable financing for agro-enterprise development, and offering scalable experiences for wider impact.

1.2 Project Development Objective and Project Components

A. Project development objective

China has eradicated extreme levels of rural poverty, but consolidation and long-term sustainability of poverty achievements remain a high priority for the Government, as highlighted in the 14th Five-Year Plan 2021-2025. The project will contribute to sustain poverty achievements by preventing vulnerable people from falling back into poverty and ensuring that the on-going process of rural transformation and agricultural modernization is inclusive and financially and environmentally sustainable. The **goal** of the HGDP is to promote rural revitalization and enable smallholders to benefit from rural transformation through a private sector led green growth model which is inclusive and environmentally sustainable.

The **development objective** of the project is to increase smallholders' capacity for enhanced productivity and access to markets, strengthen environmental sustainability and climate resilience, by focusing on three selected value chains namely Bamboo, Oil-Tea Camellia and medicinal herbs in selected counties in the Hunan Province. The project will also capitalise on the opportunity to contribute to China's ambitious goal of achieving carbon neutrality by 2060 by supporting emission reductions and carbon sequestration through investments in agro-forestry and agri-food systems and putting in place a model for carbon measurement and accounting.

B. Project components

The project will have three components; Component 1: Smallholder Integration in Value Chains; Component 2: Private Enterprise Led Business Development and Component 3: Project Management & Capacity Building. The main outcomes expected from the project will be (i) Increased production and Productivity; (ii) Climate Adaptation & Enhanced CO₂ sequestration and (iii) Increased market share & value addition. These outcomes will lead to higher level impacts in terms of increase in incomes, increased empowerment of women, increased revenue and increased employment of women and youth.

Component 1: Smallholder Integration in Value Chains

This component will finance four sub-components focusing on enhancing the production quality and productivity, as well as the inclusivity, of the selected value chains. The focus on production will be on smallholders who produce bamboo shoots and wood, camellia oleifera fruits and medicinal plants.

The project will mainly support the improved management of existing plantations of bamboo, rehabilitating lands for camellia oleifera production and promoting the under-forestry economy which includes Chinese medicinal plants. The main outputs that will be produced under this component will include (i) Inclusive & sustainable production management plans; (ii) Increased area under sustainable & climate smart management practices; (iii) Key infrastructures for cultivating the selected high value chain crops; (v) a system for monitoring and accounting model for carbon sequestration.

Component 2: Private Enterprise Led Business Development

This component includes three sub-components focusing on enhancing the business development and growth of private enterprises involved in the three selected high value commodities, assist them in enhancing their processing capacity, product diversification & development and marketing. The investments will be undertaken through close coordination between the CDIC in each county and the Forest Bureau. The main outputs that will be produced under this component will include (i) technically and financially feasible business plans; (ii) expansion in physical infrastructure in enterprise parks; (iii) expansion in production, storage and processing facilities of private enterprises. This will lead to increase in volume and quality of produce processed and marketed, create employment for women and youth in the enterprises and generate economic multiplier effects along the value chains and help to grow the rural economy.

Component 3: Project management and capacity building

The Provincial Forestry Department and the Forestry Bureaus at the county level will provide the management and field staff, office accommodation and the logistical support. Local level institutions such as the Women's Federation and the Youth League resources will be used for outreach to women and youth. This component will also include arrangements for monitoring and evaluation, knowledge dissemination, opportunities for South-South Triangular Cooperation and policy contributions. Partnership will be sought with agencies like the International Bamboo and Rattan Organization (INBAR) for the development of the bamboo

1.3 Purpose of the Stakeholder Engagement Program

The Stakeholder Engagement Program for the HGDP project serves as a crucial framework for managing interactions with various stakeholders. It ensures that the project's objectives align with stakeholder expectations, promotes open communication, mitigates potential risks, and fosters inclusive decision-making. Stakeholders, including local communities, government entities, and international organizations, play a pivotal role in determining the project's success. This plan seeks to identify and engage with all relevant stakeholders, understand their interests and concerns, and develop tailored strategies for effective communication and collaboration.

Moreover, the Stakeholder Engagement Plan serves as a risk mitigation tool, helping anticipate areas of potential conflict and resistance due to conflicting interests or lack of information. This approach fosters a collaborative environment where stakeholders feel valued and included, increasing their likelihood to support the project and advocate for its success. Additionally, involving stakeholders in the decision-making process enhances the project's legitimacy and ownership, leading to more sustainable and acceptable results.

2. STAKEHOLDER IDENTIFICATION AND ANALYSIS

2.1 Affected Parties

The main target groups of the project will be smallholders especially women and youth, cooperatives, private and state-owned enterprises involved in the three selected value chains.

Table 1 below gives the land holding share of the main type of holdings in the project. This shows that landholding by smallholders and those aggregated into cooperatives makes up 47% of the total holding. Landholding held by private enterprise makes up 34% of the total holding. A majority of the direct beneficiaries of HGDP will be smallholders who manage their own production on an average of mu of land, out-rent their land or work as paid labour in the production of the selected value chains,

participate in the various training programmes for strengthening their technical and management capacity. Direct beneficiaries will also include those who have benefited through increased sales or employment in the public or private enterprises supported by the project. The project will include cooperatives as a key institution for smallholder farmers and capitalize on their role as investor-owned enterprises or land-shareholding cooperatives which enables members an opportunity to earn wages, secure land rents or a share in the profits.

Table 1: Type of Land Holding (mu)

	Area	(%)
State owned Forest Farm	11600	6%
Private enterprises	67200	34%
Ccooperatives	36350	18%
Individual Large Holders	26450	13%
Individual Small Holders	57900	29%
	199500	100%

A special effort will be made to ensure that women farmers are part of the decision making and that women led cooperatives and enterprises have preferential access to training, production inputs and access to markets. A gender strategy has been detailed and included as part of the design. An inclusive targeting strategy will also apply with sensitivity for youth and ethnic minorities, where youth employment in the value chains will be promoted. Furthermore, mid-term and endline project targets for benchmarking gender and youth focus of the project will be developed for inclusion in the log-frame and measured through the project M&E system.

2.2 Disadvantaged Groups

Whilst rural poverty has been eliminated in China, rural areas have experienced massive urban migration of the active workforce due to the large gap between urban and rural salaries and the limited income-generating opportunities in the rural areas. Rural villages today are characterized by a population which mainly comprises elderly, some middle-aged women taking care of the elderly parents, who represent about 60% of the labour force in rural areas, young children, and sick and/or people with disabilities. Rural families are often dependent on remittances provided by migrant worker family members, complemented by some income from small-scale production and local labour. The contribution of agriculture to the rural household income has declined over time, and income-generating opportunities are mostly in value added activities such as processing or high value crops. There is urgent need to revitalize rural areas to stem the tide of urban migration.

2.3 Analysis of Stakeholders

A. Direct Beneficiaries

Estimation of Beneficiaries: Based on the plans submitted by the seven counties, it is expected that HGDP will be able to reach around 43,500 smallholder households directly and 128,000 people given the average household size of 2.95 people in the province. The numbers exclude beneficiaries who might receive more than one benefit from the project to avoid double counting. The Project is expected to rehabilitate or develop 199,000 mu¹ or 13,266 hectares of land under the three crops. It is expected that women beneficiaries of the project will comprise 60% of the total beneficiaries and youth will constitute around 30%. Table 2 below gives an estimated number of beneficiaries from the different types of benefit generated by the project.

Table 2: Estimation of Beneficiaries

¹ 1 ha = 15 mu

	People	Men	Women	Youth	Women (%)	Youth (%)
Component 1: Smallholder Integration in Value Chains						
Training in climate adaptive production techniquesijk	27,391	5,478	16,435	6,848	60%	25%
Provision of improved inputs for production (seeds, saplings, fertiliser, etc)l	18,850	5,478	16,435	6,848	87%	36%
Access to improved infrastructure (irrigation, passage ways)mjk	19,511	3,902	11,707	3,902	60%	20%
Increased income from renting landnq	6,530	5,224	1,306		20%	0%
Increased income from divided income through share in productionor	6,530	5,224	1,306		20%	0%
Increased income from sale of produceps	6,451	3,871	3,871	3,226	60%	50%
Increased income from on-farm wage labourfh	7,880	3,152	4,728	3,152	60%	40%
Increased awareness of carbon sequestration, monitoring and accounting methods	100	30	70	50	70%	50%
Component 2: Private Enterprise Led Business Development						
Increased production and revenues from infrastructure investments						
Number of enterprises that diversify their products						
Increased employment in agro-enterprisest	2400	960	1440	1440	60%	60%
Increased sale of produce of smallholders due to enhanced processing capacityu	5790	2316	3474	2316	60%	40%
Total	43,561	11,936	26,147	13,806	60%	32%
Say	43,500	12,000	26,000	13,000	60%	30%

Smallholder farmer households in China have very smallholdings and 90% of smallholders farm on less than 1 ha of land. Many of them have adopted a model of part-time management of agricultural production which allows them to alternate between farming in busy seasons with working in cities in slack seasons. Given the peculiar land ownership and use rights pattern in China, smallholders rent-out or rent-in land based on their livelihood strategies, and they are not well involved in the agribusiness in the project area. After the declared eradication of extreme poverty in February 2021, the government has redefined the focus support group in its state's well-being register system as **vulnerable smallholder farmer households**, which constitute of five categories, or: (i) households of subsistence allowance, (ii) households of marginal subsistence allowance, (iii) extremely difficulty households, (iv) former registered poor households under continued monitoring, and (v) low-income households. Typically, the first three categories lack active labour and they receive welfare allowances from the government. In 2022, the total population in seven project counties is 4.86 million, and 45.2% are rural residents. Most of the counties have largely been able to alleviate poverty with only 1.7% belonging to the vulnerable population which is being monitored due to the potential risk of slipping back into poverty. Roughly half of the population in the counties are classified as active agricultural labour. On average, the landholding of arable land in the counties

varies between 0.72 mu to 1.5 mu per person or an average of 0.93 per person or 2.47 mu per household, and the forest landholding in the counties varies between 0.73 mu to 14mu per person or an average of approximately 20 mu per household. While farming is a key source of income, households also rely on off-farm income. However, farmers' technical access is limited as well as marketing access. Only 33,090 farmers obtained technical training in 2022. A small size of 55,885 households share cooperative membership, in which, a cooperative only covers 23 households in average; and a small proportion of one-tenth of households connecting production with enterprises. The average net income per capita in rural of seven project counties is CNY18,270, which is 93.5% and 90.8% of provincial and national levels.

Rural women are the primary labor force in the project counties due to the long-term massive rural labor migration to urban areas. Overall, rural women have accessed to more opportunities to participate in agricultural development and community affairs, and gaining improved social and economic status. However, with the burden of both agriculture and housework, rural women are mostly restrained to gain income from on-farm production and labor work nearby. This limits their opportunity to obtain knowledge, skills and information, and there is still a distance for them to fully participate in decision-making on community development. Despite these challenges, rural women are eager for development opportunities locally, and Their umbrella organization - Women's Federation (WF) is a grassroots agency dedicating in promoting the women's rights and interests. Rural women take 48.5% of the population in seven project counties with a vulnerable position. With limited income generation opportunities in rural, about 60% of women labors have to stay in rural playing the role of taking care family instead of engaging in urban migrant job. Only 10.9% of village heads is shared by women; women-led cooperative and women-led enterprises take 6.8% and 16.4% in the project counties. With only 5.8% household head positions, the cooperative membership and contract with enterprise normally signed under the name of male household head, even women are the majority of the production; and women only shared a quarter of technical training opportunities in 2022.

Rural youth are the most active force for rural revitalization, and youth accounts for 32.7% in seven project counties. However, due to a lack of opportunities and investment capital to make a satisfying income in rural areas, they often migrate to urban areas for better income, and youth share close to half of migrant labors in the project counties. Limited employment options often lead to unsustainable situation either they seek urban or rural employments. To address this issue, it is worth exploring entrepreneurship and employment opportunities in agribusiness to attract and sustain youth in rural and agricultural sectors.

Ethnic minorities are integrated into the mainstreams of the society in China, and the government provides preferential policies and support to them in social, cultural, and economic development compared to the majority of Han population. In seven project counties, the ethnic minorities take 7.2% among total population, among them, 74.9% live in Yuanling County and another 19.8% are in Xupu County. Tujia, Yao and Miao are major ethnic minorities in Yuanling and Xupu counties. Ethnic minorities in the project area are in general well integrated in the existing socio-economic context, have livelihood strategies similar to those of the other rural populations, are not excluded from existing economic opportunities, are not discriminated, and have not distinct needs from the rest of the population². The development needs of ethnic minorities in the project area are to be benefit from rural transformation through a private sector led green growth model as the other rural population.

B. Government Departments and international Organizations

At the national level, the National Development and Reform Committee (NDRC), State Forestry and Grassland Administration, the Ministries of Water Resources (MOWR), the Ministry of Agriculture and Rural Affairs (MARA), the Ministry of Transport (MOT), Ministry of Natural Resources (MNR) and Ministry of Ecology and Environment (MEE) is responsible for overall social-economic development planning, forestry development planning, irrigation and water resources management, agriculture, rural roads, land use and ecological environment protection respectively. They provide respective policy advice, technical guidance and programme supports to provincial and local governments and relevant institutions. At the provincial level, the Provincial Development and

² Working paper: Social Environment in Context of Poverty, Targeting, Gender and Youth.

Reform Committee (PDRC), Department of Forestry, Department of Water Resources (DOWR), Agriculture and Rural Department (ARD), the Department of Transport (DOT), the Department of Natural Resources and Ecology and Environment are the line agencies respectively. They issue provincial sector development strategies, policies, plans and technical guidelines, formulate and implement work and budget plans for provincial government funded programmes and projects. At county levels, the counterpart agencies are the Bureau of Development and Reform (BODR), the Bureau of forestry Bureau, the Bureau of Water Resources (BOWR), the Agriculture and rural Bureau, the Bureau of Transport (BOT), the Bureau of Natural Resources and Ecology and Environment respectively. They formulate and implement county level sector development plans and projects, review and approve system planning and project designs for relevant investment activities, supervise their implementation, and advice system operation and management.

The government institutions especially the forestry bureaus/department will benefit from project implementation in enhancing their capacity for sector development policy analysis, technology exploration and networking with all stakeholders of public and non-public nature to support the sector development.

Cooperating with Hunan Forestry Department, World Bank, European Investment Bank and KFW supported projects on Camelia development, forest improvement, Forestry Management and Carbon Sequestration Development, etc. in Hunan Province.

C. Private Sector entities

The bamboo enterprises in Hunan are typically small and medium-sized businesses. They are responsible for the processing, manufacturing, and marketing of bamboo products. The enterprises are facing a number of challenges, including the high cost of inputs, the lack of access to finance, and the competition from foreign companies. However, the enterprises are also benefiting from the growing demand for bamboo products, and are increasingly investing in research and development.

The oil tea enterprises in Hunan are typically small and medium-sized businesses. They are responsible for the processing, manufacturing, and marketing of oil tea products. The enterprises are facing a number of challenges, including the high cost of inputs, the lack of access to finance, and the competition from foreign companies. However, the enterprises are also benefiting from the growing demand for oil tea products, and are increasingly investing in research and development.

There are a number of enterprises that are active in the under-forest economy value chain in Hunan. These enterprises range from small-scale processors to large-scale timber companies. The strength of these enterprises varies, but some of them are well-positioned to take advantage of the growing market for under-forest products.

Farmers' cooperative has been being strongly promoted by the government at all levels, it is important organization for farmers to link their production with the market, especially for smallholder farmers.

D. Project level entities

The project will be executed and coordinated by the Provincial Forestry Department (PFD) in Hunan. A Provincial Project Management Office (PPMO) has been set up in the PFD. Specifically, the Provincial Forestry Fund Station (PFFS) will undertake the day-to-day coordination and management of the project. The PPMO in the PFFS will be staffed adequately with the key functions necessary for the management of the project. The Department/Bureau of Finance (BOF) at Provincial/County level will be responsible for administering project resources, including the IFAD loan and counterpart funds.

An Inter-departmental coordinating mechanism will be established at the provincial level for this purpose composed of departments including forestry, finance, development reform at the least. At the county level, the Vice Governor will lead the county level coordination with member agencies including forestry, finance, agriculture and rural affairs, development reform, water, land, environment protection. The Women's Federation (WF) and Youth League (YL) in the counties will

be assigned responsibilities in supporting women and youth related activities and leverage opportunities for further supporting women and youth in the project area.

County Project Management Offices (CPMO) has been established at the County Forestry Bureau (CFB) in each county taking charge of overall and detail project management tasks, and coordinating with county development investment company (CDIC) for value chain investment from either government or private sector at the farm level. In order to ensure effective engagement and address the concerns of local communities in the HGDP project, a focal person at each CPMO will be appointed and responsible for both environmental and social related issues, including coordinate with communities. This role involves organizing and facilitating communication between the project and the community, ensuring transparency, and fostering mutual understanding. The focal person's responsibilities include managing community meetings, feedback mechanisms, and resolving grievances, thereby strengthening the project's relationship with local stakeholders and supporting its social sustainability. Specifically, county Women Federation (WF) will be assigned as a deputy director member of the CPMO to facilitate women's participation. Relevant technical bureaus in the counties will also be mobilized to support implementation of the related project activities.

Village Implementation Groups (VIGs) will be established in the administrative villages targeted by HGDP. VIGs, with the guidance of focal person and township government office, will support the project implementation in functions such as beneficiary engagement and targeting, monitoring and grievance redress, facilitating households' partnership with enterprises, O&M of project supported public infrastructure at community level, etc.

HGDP will harmonize its efforts with the on-going plans for agriculture and enterprise development at the county level. The PMO and CPMO will coordinate their investment plans under the project with the plans of other departments at the provincial and county level to further strengthen and support the investments in plantations and the enterprise parks through the equity investments of CDICs. HGDP will also coordinate its plans with the Carbon Sequestration Centre within the PFD and the Carbon Platform at the provincial level in Hunan. In this regard, HGDP will also develop a partnership with KFW which is designing a project for enhancing carbon sequestration from the agro-forestry sector. The International Bamboo and Rattan Organization (INBAR) participated in the design of HGDP and is planning to support in the dissemination of improved technologies and practices in bamboo production and processing both within the country and in pursuing the objectives of South-South Triangular Cooperation (SSTC).

2.4 Stakeholders Consulted during Design

A broad range of stakeholders were consulted during the design of HGDP in two on-site missions in July and October 2023, to seek their views and ideas on the proposed project interventions and on their participation and benefit from the project, especially when project beneficiaries and recipients are concerned. In January 2024, the national environmental and social experts carried out virtual meeting and discussed with the main stakeholders (e.g. PPMO, CPMO, CDIC, FSR design institution and project enterprise, etc) of the project about the environmental and social safeguard risks of the project, the national and local policy requirements for environmental and social aspects related with the project, the gap with IFAD SECAP standards, and corresponding mitigation measures. The following table provides an overview of such stakeholders consulted.

Counties visited	Township and villages visited	Types of groups, organizations and rural institutions reached
Heshan county	Shuiman and Daqiao villages, Nijiangkou Township	Management Committee of Industry park, Hexiang Bamboo Product Co. Ltd., Village committees, Households, Forestry Bureau, Women Federation, Youth League, Heshan District Shanxiang Jubian Ag Dvlp Co. Ltd.

Yuanling County	Fenghuangshan Village, Country industry park	Hongyuan agro-forestry development Co. Ltd.; Shengtai Camelia Oil Co. Ltd., employment households, cooperatives, village committee, ethnic representatives, women employees on plantation, forestry bureau, Women Federation, Youth League, Rural Revitalization Bureau, Bureau of Ethnic and Religious Issues, County Forestry Resources Collection and Storage Co. Ltd.
Xupu County	Chuanyanshan village of Tongxihe Township	Shizheng Under-forestry Economic production base, technicians, contracting households, village committee, ethnic representative, county government, forestry department, women federation, youth league, Bureau of Ethnic and Religious Issues, Rural Revitalization Bureau, Meteorology bureau, Water resources Bureau
Taojiang County	Sanli village, Majitang township	Management Committee of Industry park, Bamboo processing company, Village committees, Households, Forestry Bureau, Women Federation, Youth League, Taojiang Zhuxiang State Owned Assets Operations Co. Ltd.
Henshang County	Shanzhu village of Kaiyun Township	Hengsha County Urban and Rural Construction Investment Co. Ltd, Huanghua Camelia Park, Jinchang Bio-SciTech Co. Ltd., Village committee, households, women representatives, Women Federation, Rural Revitalization Bureau, Forestry Bureau, Finance Bureau
Yan Ling County	Qingshi branch, Wulipai Branch, Muwan branch areas of Qingshigang State Forest Farm	Qingshigang State Forest Farm, Bamboo Cooperatives, household producers of bamboo, Village committees, Women Federation, Rural Revitalization Bureau, Forestry Bureau, Finance Bureau
Provincial capital city (Changsha)		Forestry Department, Finance Department, Women Federation, Youth League, Rural Revitalization Bureau, Audit Bureau, FSR Design Institution

3. STAKEHOLDER ENGAGEMENT PROGRAM

3.1 Purpose and Timing of Stakeholder Engagement Program

A Stakeholder Engagement Plan (SEP) has been developed for HGDP to ensure meaningful engagement of project stakeholders including smallholder farmers, women and youth during project design and implementation, in line with the policies of Hunan province, to ensure that public consultation be conducted with all stakeholders involved in a plan to collect their opinions and suggestions, including advice, needs and directions of public opinion on the proposed project from mass, online, mobile and other emerging media.

The Stakeholder Engagement Program for the HGDP project is designed to create a structured and proactive approach to managing interactions with stakeholders throughout the project's life-cycle. It aims to ensure that the project's objectives align with stakeholder expectations, foster open communication, and promote inclusive decision-making. The program's timing is aligned with the project's various phases, from planning and implementation to monitoring and evaluation.

3.2 Proposed Strategy for Information Disclosure

Transparency plays a pivotal role in our Stakeholder Engagement Program for the HGDP Project. The strategy for information disclosure is meticulously designed to ensure that stakeholders have ready access to accurate and timely information regarding the HGDP Project. The strategy encompasses the following key elements:

- Public awareness campaign: A robust public awareness campaign in the project area will be initiated aiming at educating stakeholders, with a particular focus on the HGDP, about the project's goals, expected outcomes, and their roles in the process.
- Information sharing workshops: Regular workshops will be conducted to share pertinent project-related information, update stakeholders on progress, and discuss challenges. These workshops will also provide a platform for stakeholders to pose questions and seek clarifications.
- Dedicated project website and WeChat account: A dedicated project website and WeChat account will be established, acting as a centralized hub for project updates, reports, and relevant documents. Ensuring that the website is user-friendly and accessible to all stakeholders is a top priority.
- Community broadcast and WeChat account/WeChat group: Utilizing local community broadcast stations and WeChat account/WeChat group, the project information will be disseminated to all villages in local languages.
- Information pamphlets and brochures: Create informative pamphlets and brochures, simplifying complex project details to enhance comprehension for all stakeholders.
- Exchanging meetings: Meetings will be organized to facilitate direct interaction between project representatives and stakeholders. These forums will address concerns and offer updates in an open and transparent manner.

3.3 Proposed Consultation Strategy

The proposed consultation strategy of HGDP is geared towards proactively engaging stakeholders in the decision-making process and empowering them to contribute their insights. The strategy encompasses the following components:

- Villagers' Meetings: Regular villagers' meetings will be held to gather feedback, listen to concerns, and involve stakeholders in discussions and decision-making about project planning and implementation.
- Focus Group Discussions: Focus group discussions will be held with representatives from HGDP and other stakeholder groups to delve deep into specific issues and identify collaboratively develop solutions.

- Participatory Workshops: Facilitative participatory workshops will enable stakeholders to actively participate in planning and decision-making processes, ensuring their voices are heard and valued.
- Surveys and Questionnaires: In different stages of HGDP, surveys and questionnaires to stakeholders will be applied to collect structured feedback on various project aspects, providing quantifiable data to guide decision-making.
- Digital Platforms for Virtual Consultation: Digital platforms for virtual consultations will be provided to allow stakeholders who may not attend in-person meetings to actively participate.

By implementing these strategies for information disclosure and consultation, the HGDP Project aims to ensure that all stakeholders are actively engaged and have the opportunity to shape the project's outcomes in a meaningful and inclusive manner, leading to positive impacts on their livelihoods and empowerment.

4. Responsibilities for Implementing Stakeholder Engagement Activities

Stakeholder engagement process will be upheld by dedicated team, with specific roles and responsibilities. The Gender and youth coordinator, along with the **Monitoring and Evaluation (M&E) Officer** at both provincial and county PMO, will provide essential information for decision-making to achieve the objectives outlined in this Strategy.

The implementation of stakeholder engagement plan will ensure IFAD's core targeting approach, by targeting smallholder farmer households including vulnerable smallholder farmer household, being a vehicle for women's transformation through providing them increased opportunities for income and employment in manner that is gender sensitive and empowering for them, and integrating rural youth along the selected value chains.

The CPMOs, through focal person, will establish effective communication channels to engage stakeholders and maintain an up-to-date stakeholder database. Furthermore, the PMOs will organize and facilitate stakeholder meetings, workshops, and consultations, ensuring their seamless execution. The PMOs will also be responsible for communicating project updates, progress, and relevant information to stakeholders on a regular basis. Additionally, the PMOs will address stakeholder feedback and incorporate it into project decision-making processes.

Implementation arrangements at the province levels will possess the capacities for planning, procurement, financial management, monitoring and evaluation, interdepartmental coordination, managing basic implementation structures in decentralized locations, and designing participatory local community operations manuals, among other functions.

5. Grievance Redress Mechanism (GRM) for the HGDP Project

The project will establish a robust and accessible Grievance Redress Mechanism (GRM) to effectively manage feedback, grievances, problems, issues, or complaints arising from project activities, including environmental and social performance concerns. This GRM is designed to ensure all project stakeholders, including affected individuals and communities, are well-informed of their rights to access the GRM at all levels of project management. Accessibility will be ensured through transparent, cost-free provisions, safeguarding stakeholders from any form of reprisal or retribution.

To align with the principles outlined in the *Environmental Protection Law* and the *Administration on Resolving Environmental Complaints*, the project's GRM will incorporate government-owned grievance procedures, enhancing our approach to address environmental and social grievances. The integration of these procedures, including the use of the "12369" environmental hotline and digital platforms, will facilitate broader public participation in environmental supervision and ensure a rapid, transparent response to complaints.

At the project county level, the GRM will be clearly communicated to local communities and affected individuals through public meetings, informational brochures, and other media channels. This local-

level GRM, tailored to address environmental and social aspects, will be accessible to all community members, respecting public rights under PRC regulation on Letters and Visits and protecting complainants from retaliation.

For issues related to labor disputes, the project will implement a specific workers' grievance mechanism, to be introduced during staff induction trainings. This mechanism will emphasize transparency, non-discrimination, confidentiality, and the equal treatment of anonymous grievances. It will also ensure timely and appropriate responses to grievances, in accordance with China's Labor Law.

GRM Detailed Process:

Step 1: Initial Resolution Efforts Affected parties should first seek resolution directly with the contractor or operator, using local GRM access points. Successful resolution at this stage ends the process; otherwise, it escalates to Step 2.

Step 2: Program Implementation Unit (PIU) Engagement Unresolved grievances are submitted to the PIU for assessment and potential escalation to Step 3 if not resolved.

Step 3: CPMO Investigation and Consultation The CPMO investigates and attempts to resolve the complaint in collaboration with relevant stakeholders, escalating unresolved issues to Step 4.

Step 4: Multi-Stakeholder Meeting A broader stakeholder meeting, including IFAD, seeks a consensus solution, with implementation to follow swiftly.

Step 5: Provincial Government Intervention The final step involves a governmental hearing to finalize a resolution, with a mandate to begin implementation within 7 working days of a hearing conclusion.

Workers' Grievance Redress Mechanism

For labor disputes, the workers' grievance mechanism will be described in staff induction trainings, which will be provided to all project workers. The mechanism will adhere to the following principles:

- Transparency in the process, allowing workers to express their concerns and file grievances without fear.
- Non-discrimination against any individual expressing grievances, ensuring confidentiality and equal treatment of anonymous grievances.
- Commitment to taking grievances seriously with timely and appropriate action in response.

This mechanism ensures that workers are aware of their rights and the procedures available to them, including the option to use conciliation procedures as per China's Labor Law (2018 amended). For more information, refer to the Ministry of Human Resources and Social Security's official document [here](#).

Additionally, all GRMs will be publicized on local websites, PIU's website, project sites, and related communities to ensure transparency and accessibility. The PIU is responsible for keeping records of all grievances and resolutions and reporting to the CPMO through the routine monitoring and reporting mechanism.

All grievances, including those related to sexual exploitation and abuse (SEA) and labor rights violations, will be meticulously recorded and addressed. The project management offices at county and provincial levels (CPMOs and PPMOs), along with the Steering Committee, will oversee the comprehensive reporting of grievances and actions taken to IFAD, ensuring accountability and transparency.

The GRM's implementation reflects a commitment to upholding high social and environmental standards, integrating existing mechanisms with adaptations for project-specific needs and risks, thus playing a crucial role in protecting stakeholders' rights and interests.

In summary, the project's GRM, as part of the overall community engagement strategy, is designed to be a multifaceted and accessible mechanism for addressing a wide range of grievances. This comprehensive approach is aimed at sustainable and inclusive development, in alignment with IFAD's Social and Environmental Policies and the mandatory aspects of the SECAP, ensuring that all stakeholders are fully aware of and can easily access the grievance processes.

6. Monitoring and Reporting Strategy

Effective monitoring and reporting are critical elements of the HGDP project. They are essential for tracking progress, identifying challenges, and ensuring transparent and efficient stakeholder engagement throughout the project's life-cycle. This section outlines the structure and approach to monitoring activities and reporting to our valued stakeholders.

6.1 Stakeholder Engagement in Monitoring Activities

Monitoring and Evaluation (M&E) system for HGDP will be developed as a tool for effective project implementation management. The M&E system will enable IFAD, the Government and the stakeholders to monitor Project's internal performance. The objective of the tool is to collect reliable data and information for measuring performance and progress towards achievement of results; and to provide information about success and failures, so that corrective measures can be taken for successful implementation of project activities. It will be also used as a learning tool to provide information for critical reflection on project strategies and operations and supporting decision-making at various levels as a basis for results-based management. The HGDP project understands the significance of involving stakeholders in monitoring activities to secure their ownership, accountability, and continuous feedback. To achieve this, the project will implement the following steps:

- Collaborative Monitoring Framework Development: The project will engage relevant stakeholders, including representatives from VIG, cooperatives, smallholder farmers, enterprises and other key stakeholders, in the co-creation of the project's monitoring framework. This inclusive process involves identifying essential indicators, data collection methods, and the frequency of monitoring activities.
- Participatory Data Collection: Stakeholders will actively participate in data collection exercises, surveys, and assessments. The PPMO will work closely with community members to collect data on project outcomes, impacts, and challenges encountered during implementation. This participatory approach ensures that local voices are heard and considered.
- Community-Led Monitoring: The project will encourage community-based monitoring systems. This approach empowers local communities to actively track project progress, identify issues, and report back to the PMO and relevant authorities. Local ownership of the monitoring process is central to its success.
- Feedback Mechanisms: To maintain transparency and active participation, the project will establish regular feedback mechanisms. Stakeholders will be encouraged to share their observations, concerns, and suggestions concerning project activities. This feedback will be used to address any emerging issues promptly, ensuring timely adjustments.
- Joint Review Meetings: Joint review meetings will be organized at annual survey, supervision, mid-term and completion M&E, bringing together stakeholders and the M&E team. During these meetings, progress will be assessed, findings discussed, and corrective actions or adjustments to project activities will be collaboratively planned based on the shared insights.

6.2 Transparent Reporting to Stakeholders

Transparent and timely reporting is vital for maintaining stakeholder trust and keeping them well-informed about the HGDP project's progress. The project will implement the following reporting mechanisms:

- Regular Progress Reports: The project will prepare semi-annual and annual progress reports, detailing achievements, challenges, and upcoming activities. These reports will be widely shared with stakeholders and disseminated through various communication channels, including villagers' meetings and online platforms.

- Bidding announcement: Relevant project procurement will be publicized through various channels under the government supervision and management.
- Regular M&E reports: The project will conduct annual M&E activities according to the M&E plan, and annual M&E reports will be widely shared with stakeholders and disseminated through various communication channels, including villagers' meetings and online platforms.
- Stakeholder Engagement Platforms: The project will utilize existing stakeholder engagement forums, such as PMO WeChat official account, VIG WeChat group, etc. to provide updates project progress information.
- Online Platforms and Project Website: The project website and online platforms will serve as central repositories for project reports, updates, and relevant documents. Stakeholders will have convenient access to this information anytime and from anywhere.

By involving stakeholders in monitoring activities and providing regular and transparent reporting, the HGDP project will build a sense of ownership, accountability, and mutual learning. These efforts will contribute to fostering stronger relationships with stakeholders and lead to more effective and sustainable outcomes for the communities and the overall success of the project.

Stakeholder Engagement Plan matrix

Stakeholder	Concerns	Engagement method	Information to disclose and report back	Most valuable information to obtain	Frequency of engagement	Responsible	Timeline
Local community NGOs Government Local authorities Contractors Regulators etc.	What is this stakeholder concerned about?	How can this stakeholder be engaged? What is the most effective method of two-way communication? How frequently does this group need to be engaged with?	What does this stakeholder need to know?	What does the project need to know about or from this stakeholder?			
Subprojects neighbouring communities, public	Environmental sustainability; Economic opportunities; Inclusivity for women, youth, and ethnic minorities	Method: - Villagers' Meetings; - Focus Group Discussions; - Participatory Workshops; - Community Broadcasts; - Surveys and Questionnaires; - Digital Platforms for Virtual Consultation. How to engage: - Through direct participation in meetings and workshops. - Inclusive representation in focus groups. - Accessible broadcasts and digital platforms, like WeChat for remote for wider reach.	Project goals and expected outcomes; Opportunities for local employment and training; Environmental impact assessments	Community feedback on project impacts; Suggestions for improvement; Specific needs of disadvantaged groups	Regular during project phases; As needed for specific concerns; More frequently in initial stages and key milestones	PMO/CPMO; VIGs	Throughout project lifecycle

		- Appoint focal person in each CPMO for coordination.					
Contractor / Workers at Project Sites and Infrastructure	Occupational Health & Safety; Labour rights and working conditions; Sexual Exploitation and Abuse (SEA) prevention	Training sessions; Regular meetings; Grievance and feedback mechanisms	Information on Occupational Health & Safety rules; Rights and responsibilities under labour laws; Policies on SEA prevention and response	Feedback on workplace safety and environment; Reports of any SEA incidents or labour rights violations; Suggestions for improving working conditions	Regularly scheduled; As needed for specific incidents or updates	County Project Management Office (CPMO); Provincial Project Management Office (PPMO)	Throughout project lifecycle
Farmers' Groups (including smallholders, rural women, and youth)	Limited market access; Climate risks and poor soil management; Need for technical and management capacity enhancement	Participatory workshops; Training programs; Collaborative monitoring frameworks	Market opportunities; Climate adaptation strategies; Technical and management training opportunities	Feedback on training effectiveness; Insights on local market needs; Challenges in implementation	Regular during project phases; As needed for specific training and monitoring activities	Provincial Forestry Department (PFD); County Forestry Bureaus	Throughout project lifecycle
Private Sector Entities	Business development and growth; Processing capacity and product diversification; Market expansion and carbon market linkage;	Business development workshops; Coordination meetings with CDIC and Forest Bureau; Collaborative planning sessions	Business plan support; Infrastructure investment opportunities; Carbon market information	Feedback on business support effectiveness; Needs for further business development; Insights on market trends and opportunities	Regular during project phases; As needed for specific development activities	Provincial Forestry Department (PFD); County Development Investment Company (CDIC)	Throughout project lifecycle
Government and Local Authorities, Regulators	Sector development and policy implementation; Supervision of project planning and execution; Compliance with social and environmental policies	Policy advisory meetings; Project planning and review sessions; Grievance and feedback mechanisms	Project goals and progress; Compliance with social and environmental standards; Plans for sector development and capacity enhancement	Feedback on policy implementation; Advice on project alignment with national and local priorities; Reports of any compliance	Regularly scheduled; As needed for policy updates and project reviews	Provincial Development and Reform Committee (PDRC); Department of Forestry; Various Bureaus at the county level	Throughout project lifecycle

				issues or grievances		(e.g. Bureau of Forestry, Bureau of Water Resources , - Agriculture and Rural Bureau and Bureau of Transport)	
Women's Federation (WF) and Youth League (YL)	Support for women and youth-related activities; Leveraging opportunities for women and youth	Inclusion in project management; Participation in relevant committees; Targeted activities and programs	Project goals related to women and youth empowerment; Opportunities for involvement in project activities; Progress updates and results of targeted initiatives	Feedback on effectiveness of women and youth programs; Suggestions for improvement and additional support; Insights on needs and aspirations of women and youth	Regular during project phases; As needed for specific activities and programs	County Project Management Offices (CPMO); County Forestry Bureau (CFB)	Throughout project lifecycle

China

Hunan Green Development Project

Project Design Report

Annex: Annex 5.3 Environmental Social And Climate Management Framework 18 Feb

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Abbreviated Environmental, Social and Climate Management Framework: Annotated Outline

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1 Overview/Background on intended Project/Programme

The Hunan Green Development Project (HGDP)'s goal is to promote rural revitalization and enable smallholders to benefit from rural transformation through a private sector led green growth model which is inclusive and environmentally sustainable. The People's Republic of China has eradicated extreme levels of rural poverty, but consolidation and long-term sustainability of poverty achievements remain a high priority for the Government. The project will contribute to sustain poverty achievements by preventing vulnerable people from falling back into poverty and ensuring that the on-going process of rural transformation and agricultural modernization is inclusive and financially and environmentally sustainable. The project will be implemented over a six-year period. The project will be implemented over a six-year period in 7 counties (Taojiang, Hengshan, Yanling, Pingjiang, Heshan, Yuanling and Xupu). It is expected to be submitted for Executive Board approval in mid-April 2024 and will become effective by June 2024. Its completion is expected by June 2030.

The project will be executed and coordinated by the Provincial Forestry Department (PFD) in Hunan. A Provincial Project Management Office (PPMO) has been set up in the PFD. Specifically, the Provincial Forestry Fund Station (PFFS) will undertake the day-to-day coordination and management of the project. The PPMO in the PFFS will be staffed adequately with the key functions necessary for the management of the project, including but not limited to an executive Project Director, a planning, M&E and Knowledge Management Officer, a staff coordinating SECAP work, Gender and Youth/ Social Inclusion, Finance Officer, Accountant, etc. The Department/Bureau of Finance (BOF) at Provincial/County level will be responsible for administering project resources, including the IFAD loan and counterpart funds.

County Project Management Offices (CPMOs) will be established within each County Forestry Bureau to oversee key aspects of project implementation, including beneficiary targeting, financial management, and coordination with County Development Investment Companies (CDICs) for value chain investments. The CPMOs will include various specialized roles such as a Project Director, planning and monitoring officers, and focal points for social and environmental safeguards, with a strong emphasis on including women and youth, supported by short-term technical assistance and collaboration with relevant technical bureaus.

The Project Implementation Unit (PIU), encompassing County Development Investment Companies (CDICs), public and private entities, will oversee IFAD loan fund allocation to enhance agricultural value chains in each county, focusing on inclusivity and sustainability by supporting smallholders, cooperatives, and SMEs, and ensuring participation of women, youth, and minorities. These units are tasked with regular monitoring and reporting on project impacts, including production increases, land rehabilitation, employment, revenue generation, and the involvement of diverse demographic groups in decision-making processes.

The development objective of the project is to increase smallholders' capacity for enhanced production and productivity and access to markets, strengthen environmental sustainability and climate resilience, by focusing on three selected value chains namely Bamboo, Oil-Tea Camelia and medicinal herbs in seven selected counties in the Hunan Province. The main target groups of the project will be smallholders especially women and youth who will be aggregated / linked to cooperatives, private and state-owned enterprises involved in the three selected value chains. A special effort will be made to ensure that women farmers are part of the decision making and that women led cooperatives and enterprises have preferential access to training, production inputs and access to markets. An inclusive targeting strategy will also apply with sensitivity for youth and ethnic minorities, where youth employment in the value chains will be promoted. The project will also capitalise on the opportunity to contribute to China's ambitious goal of achieving

carbon neutrality by 2060 by supporting emission reductions and carbon sequestration through investments in agro-forestry and agri-food systems and putting in place a model for carbon measurement and accounting.

Components/outcomes and activities. The project will have three components; Component 1: Smallholder Integration in Value Chains; Component 2: Enterprise Led Business Development and Component 3: Project Management & Capacity Building. Component 1 focuses on supporting production aspects and linking farmers with corporate entities through inclusive business plans. Component 2 invests in the upstream part of the value chain to consolidate the partnership initiated with the private sector and to ensure that the increased production can be stored, processed and properly marketed to generate diverse additional income. Component 3 will support the 2 other components by providing capacity building and overall project management. The main outcomes expected from the project will be (i) Increased production and Productivity; (ii) Climate Adaptation & Enhanced CO₂ sequestration and (iii) Increased market share & value addition. These outcomes will lead to higher level impacts in terms of increase in and diversification of smallholder incomes, increased empowerment of women, increased corporate entities revenue and increased employment of women and youth.

Component 1: Smallholder Integration in Value Chains: This component will finance four sub-components focusing on enhancing the production quality and productivity, as well as the inclusivity, of the selected value chains. The focus on production will be on smallholders who produce bamboo shoots and wood, camellia oleifera fruits and medicinal plants. The project will mainly support the improved management of existing plantations of bamboo, rehabilitating lands for camellia oleifera production and promoting the under-forestry economy which includes Chinese medicinal plants. The main outputs that will be produced under this component will include (i) Inclusive & sustainable production management plans; (ii) Increased area under sustainable & climate smart management practices; (iii) Key infrastructures for cultivating the selected high value chain crops; (iv) a system for monitoring and accounting model for carbon sequestration.

Component 2: Enterprise Led Business Development: This component includes three sub-components focusing on enhancing the business development and growth of related enterprises involved in the three selected high value commodities, assist them in enhancing their processing capacity, product diversification & development and marketing. The investments will be undertaken through close coordination between the CDIC in each county and the Forest Bureau. The main outputs that will be produced under this component will include (i) technically and financially feasible business plans; (ii) expansion in physical infrastructures in green and low carbon enterprise parks; (iii) product diversification. This will lead to increase in volume, sustainability and quality of produce processed and marketed, create decent employment for women and youth in the enterprises and generate economic multiplier effects along the value chains and help to grow the rural economy.

Component 3: Project management and capacity building: The Provincial Forestry Department and the Forestry Bureaus at the county level will provide the management and field staff, office accommodation and the logistical support. Local level institutions such as the Women's Federation and the Youth League resources will be used for outreach and to empower women and youth. This component will also include arrangements for monitoring and evaluation, knowledge harnessing and dissemination, opportunities for South-South Triangular Cooperation and policy contributions. Partnership will be sought with agencies like the International Bamboo and Rattan Organization (INBAR) for the development of the bamboo value chain.

2 Potential Environmental, Social, and Climate Risks and Impacts

The **Social and Environmental Risk Category** for the Hunan project is rated as

Moderate, following the results of the Environmental and Social Safeguards Screening Checklist of IFAD's SECAP (2021) during project concept note (PCN) stage. During the project design stage (DRM), the environmental, social, and climate risk assessment confirmed that the project's categorization will not change, as anticipated adverse risks and impacts on human populations or the environment are expected to be minimal. This outcome is due to the deliberate design of project activities which are neither complex nor large-scale, and are specifically planned to avoid high-risk impacts on people and the environment. The project's strategic location, mainly on existing bamboo and camellia forestry planting areas, industrial parks, etc, purposefully selected to be distant from environmentally or socially sensitive areas, further reduces the potential for significant adverse impacts.

The risks are deemed manageable, especially considering the stringent regulatory environment in China, where related policies have been assessed as satisfactory by the World Bank and have also met the standards of the International Fund for Agricultural Development (IFAD). The PPMO boasts extensive experience with international organization's (e.g. EIB, World Bank) projects and is well-versed in environmental and social safeguard policies. Each CPMO is staffed with personnel drawn from relevant functional departments, including the Bureau of Ecology and Environment (EEB), the Natural Resources Bureau (NRB), the Forestry Bureau (FB), the Human Resources and Social Security Bureau (HRSSB), the Agriculture and Rural Affairs Bureau (ARAB), and the Development and Reform Commission (DRC). This ensures that the projects comply with all national laws and regulations on environmental and social aspects, as well as IFAD's environmental and social safeguard measures. The Project Implementation Unit (PIU), including the CDIC and potential participating enterprises, has dedicated personnel responsible for compliance with environmental and social aspects, working closely with township governments to carry out environmental and social tasks. The PPMO will provide capacity-building training for CPMOs and PIUs to ensure the implementation of the Social and Environmental Compliance Management Framework (SECMF). Additionally, the project aims to foster sustainable management practices across key value chains. The review of the 8 SECAP categories, detailed in Annex 5, underscores the project's commitment to sustainability and risk mitigation. Major thematic issues and levels of risks are explained below:

Environmental standards

- **Biodiversity**

Each County Project Management Office (CPMO) is crucial in ensuring that proposed projects comply with land use plans and are situated outside of China's strictly protected ecological red line areas, thereby safeguarding the natural environment and biodiversity. This strategic approach ensures that the project will not invest in activities disruptive of the natural environment or biodiversity and notably will not intervene in any ecological red zones which are strongly protected in China. Under component 1, there will be no new bamboo plantations only rehabilitation and sustainable management of the existing ones which will lead to reduction in carbon emissions and biodiversity enhancement. As part of Camellia Oleifera improved management, some new plantation will be supported on used or degraded land thereby also positively contributing to the environment. The medicinal plants will be planted in the shade of trees, in commercial forest, and do not entail any erosion of the soil or other harmful consequences. The cultivation of bamboo forests and oil tea pays attention to soil conservation. Forestry planting also helps to improve water yield and ecological carbon sequestration. The passageways which are built on the plantations serve the dual purposes of transporting the bamboos down the hills and act as fire break.

Resource efficiency and pollution prevention

Intervention in forest (standard 2.3): The project is intervening on improving /

restoring/ regenerating existing plantation forests having an economic goal (not in natural forests). Only bamboo is harvested and harvesting practices are made to ensure sustainable bamboo forest cover. It is important to note that there is a debate on Bamboo plantation being forest as they are members of the grass family. Investments in infrastructure in such plantations are limited (maximum road length 6 km and mostly small production road) and will follow up dedicated government regulations.

Furthermore, the project seeks to improve the sustainability of existing practices so that resources and pollution are better managed.

Fertilizer and pesticide use (standard 2.6- 2.7): As discussed with the local practitioners during the 2 missions, the fertilisers used on the project lands are organic fertilizers (mainly manure) and the project will only supply seedlings and bio-inputs and promote strict environmental organic standards included in production plans and agreements with corporate companies. For fertigation for Camelia Tea Oil, it does require liquid fertilizer, but it will improve both the water and the fertilizer use efficiency, avoiding leakages in the environment and maximizing benefit to the plants. Pesticides are not used in such plantations and integrated pest management practices will be promoted instead. The World Bank assessed that China as well as Hunan and Hubei have appropriate regulatory framework, institutional organization, staffing, and funding on chemical fertilizer management, green pest control and pesticide management and can support chemical fertilizer reduction and NPS pollution control.

- **Release of pollutants, raw material consumption:** Enterprise park can promote economic development, improve resource utilization efficiency, and thus improve environmental quality. Indeed, the establishment of enterprise parks is helping to move factories out of crowded urban areas, or rural areas where environmental pollution management is difficult due to their small size, and locate them in a well-regulated space which will assist in pollution prevention, solid waste disposal and enforcement and monitoring of quality standards including food safety requirements for edible products such as bamboo shoot production and Camellia tea oil. Furthermore, this approach enables industries to share resources enabling them to introduce advanced production processes and equipment, promoting the adoption of environmental protection technologies and clean energy by enterprises (e.g. the biomass centralized heating sub project in the industrial park in Heshan County), thereby reducing pollutant emissions and improving environmental quality. Such aspects will be reviewed as part of the business plans review and along environmental and social impact assessments required by government of China.
- **Water use:** Small scale additional irrigation system is planned to protect from droughts and therefore enhance water management and adaptation. It consists of small storage tanks and gravity drip irrigation systems to protect bamboo from droughts. The area of irrigation by reservoir and pipeline is 199,500 mu (13,300 ha), and 12,700 mu (850 ha) of integrated water and fertilizer area will be developed. Considering small patch of orchard for camelia tree, maximum size of fertigation will be 30 ha. Since the project area is mountainous and hilly, a single irrigation system is generally less than 500 acres / 200 ha. There are three kinds of irrigation water sources, one is a small spring on the mountain, the second is a river near the project area, and the third is a small reservoir near the project area. Due to the small irrigation area, the pump flow is only 20-100 m³ / h, so the impact on reservoir and river flow is negligible. Furthermore, for bamboo, irrigation will be used once or twice a year with water efficient system, so little volume will be taken (so 20-30 mm/year). There won't be canals within plantations but only to bring water from reservoirs to the plantation. Such irrigation system will increase water and energy efficiency (i.e. solar powered irrigation).

- **Forest road construction and potential degradation of ecosystems services** / community risks: road constructing may lead to soil erosion and vegetation destructions that can reduce ecosystem services and increase climate risks. However, there will be a mixture of upgrading of existing roads and construction of new roads which will be mostly too small to require an environmental assessment. As per government process, erosion control and drainage measures will be part of the process and contracting requirements. If roads larger in sensitive areas, impact assessment will be conducted. China has strict regulations on these that can be found in the infrastructure Annex.

Social standards

- **Cultural heritage:** The project will promote cultural heritage such as the use of traditional medicine, national treasure owned by the entire Chinese population that has been practicing it for centuries. Furthermore, the under-forest economy is now well regulated and covers 5.959 million ha. Thus, Camellia oil tea and under-forest Chinese medicine plantation are not cultural heritage in HGDP project area, and the project does not involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes.
- **Indigenous People:** The project area has limited number of ethnic minority people (8.39%), among them, 74.2% inhabit in Yuanling County and 19.8% are in Xupu County. The government applies preferential policies and support to ethnic minorities in social, cultural and economic development. The ethnic minority are well integrated with the ethnic majority of Han. The project will improve economic status and development capacity of ethnic minority people and communities involved through improvement of their land productivity and climate-resilience production infrastructures. There is no risk anticipated of the project to the ethnic minority people in the project areas. However, the project may be sited within commuting distance of indigenous communities, and offer employment to indigenous people. Therefore, an IPPF plan has been formulated as well as an FPIC in a culturally appropriate manner.
- **Labour and Working Conditions:** Although the subproject list could not be defined before project appraisal, a high-level analysis of the typologies of activities demonstrated the investment in agro-forest productions will be located in the rural areas with some maybe in remote area, whilst the input production, processing, logistics and distribution activities primarily in the industrial areas. The local communities would contribute most of the temporary workforces for the production bases. This was confirmed in an interview with an oil tea company, where it was found that over 80% of the employees come from the local area, with women making up more than 60% of this workforce. The potential occupational health and safety (OHS) risks in the agro-forestry sector (plantation and processing) include exposure to hazardous substances such as pesticides and fertilizers, which can lead to poisoning or long-term health issues if proper protective equipment is not used. This risk should be low as the project is promoting low pesticide/fertilizer use and mostly biological ones. Workers may also face risks related to the use of machinery and equipment, leading to injuries from cuts, amputations, or being struck by objects. The physical demands of forestry work, including manual lifting and carrying, can cause musculoskeletal injuries. Additionally, working outdoors exposes workers to adverse weather conditions, increasing the risk of heat stress or hypothermia. The risk of encounters with wildlife and insects, leading to bites or stings, and the potential for falls from heights when climbing trees or working on uneven terrain are other significant concerns. In addition, psychosocial hazards, including violence and harassment, may also be a risk to worker health, especially female workers. Ensuring proper safety training, equipment, and health monitoring is crucial to mitigate these OHS risks in the agro-forestry sector.

China has a relatively comprehensive framework requiring sound and fair treatment of all types of workers, increasing enhancement of occupational health and safety, prevention of child labor use and forced labor etc., which are generally in alignment with the requirements of SECAP Standard 5. Furthermore, institutions from county level to the national level have been established to manage labor and social enforcement and ensure and supervise their enforcement. It is recognized that the labor supervision by different level of authorities (e.g. labor bureaus, work safety bureaus, etc.) are increasingly strengthened. Following the legal requirements, it is mandatory for enterprises to develop and implement labor management policies, sign formal labor contracts, put in place grievance redress mechanisms with contact details(supported by the government- managed arbitration and judicial systems), as well as design, install and operate OHS related facilities and measures to protect the benefits and health and safety of workers.

These are highly regulated in the project counties and there is limited likelihood of violation or deviation. The field mission could see that Potential operational hazards and avoidance measures were marked in the factories visited during the mission. The virtual interview with one of the PIU in Pingjiang County, named Hunan Shanrun Oil Tea Technology Development Co.Ltd also obtained key international certifications related with E&S and in their sector, such as ISO 45001, ISO 14001, ISO 22001 and ISO 9001.



Figure 4 Personnel safety management





Figure 5 Scanned copy of ISO certificates provided by one PIU

Community health and safety: Government environmental management systems are designed to protect public and worker safety against the potential risks associated with exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials

- a. **Building construction safety:** Any construction envisioning in the project need to have construction permits which require an environmental impact assessment according to Chinese EIA categorization and selection of carefully selected areas with limited exposure to climate/natural risks. The construction will be designed and constructed by competent professionals, and certified or approved by competent authorities, having clear construction safety guidelines. This should also be clearly stated in the procurement of such constructions.
- b. **Traffic:** Work track, dirt roads and gravel roads, planned in bamboo forest are used only for workers to deliver bamboo shoots and bamboo woods (Table 3). Unpaved Forest Road are 3.5 meter wide dirt roads. Paved with Gravel Forest Road are 3.5 meter wide gravel roads. The work track will not be used for pedestrian and traffic but only for farm workers so it is expected that maximum 10 people may use one track a day. The traffic of vehicles and materials transported on the roads near the affected villages/communities may slightly increase, which may affect the safety of villagers and the community especially in the remote areas where the local residents have low safety awareness. Given the size of each subproject and its wide dispersion throughout project counties, the subprojects should enhance road safety management for project-related vehicles and where appropriate enhance the safety awareness of the local community following the SECAP Standard 6 and Chinese legal system. If other community health and safety risks are identified or arise during subproject implementation, the sub-borrowers, with the support of PPMO and consultation with the IFAD will develop and implement procedures to prevent further impacts and risks. The roads built for industrial park will be constructed inside the park, which will not create disruption considering the current traffic in the enterprise park areas already identified. This will be ascertained in line with relevant policies and institutional arrangements in place.
- c. **Labor influx:** The project is not envisaged to see large labor influx

during project construction period, as its activities primarily focus on the rehabilitation and upgrading of existing plantations, addition of enterprise equipment, expansion of enterprises, and construction of roads and centralized heating facilities within the industrial park. It is deemed as low on gender-based violence (GBV) risk. During project operation, intensify agro-forestry work and engage in enterprise park processing activities; however, based on current employment statistics, local labor constitutes over 80% of the workforce, the project should be able to source labour locally to ensure additional labor can commute daily and won't affect the existing community setting.

Resettlement and land tenure: According to project documents review and the interview with Director of the Resources Department of the Forestry Department, engineer of project design institution, CPMO officer, CDIC officer and manager of project enterprise, the land use of the project involves the following concentrated construction types: 1. plantation base; 2. production supporting facilities such as forest passageways, passways and irrigation channels; 3. Rough wood processing facilities; 4. roads, centralized heating and other facilities inside the park; 5. warehouse construction; 6. factory expansion; 7. science popularization exhibition halls related to bamboo, camellia oil, and traditional Chinese medicine. Although the specific sub projects and site selection have not yet been finalized, the project involves a mix of locations primarily within plantation areas and industrial parks, utilizing a variety of land types such as forest land, garden land, and state-owned construction land. Ownership of the proposed land spans PIUs, individual farmers and village collectives. The approaches to obtaining majority land for component 1 range from leasing land use right (LUR) or contributing LUR as equity (shares). The land for the construction of roads and supporting facilities in industrial parks under component 2 have been obtained before by PIUs. Among 7 project counties, 5 counties reported that the project land use permits has been obtained and 3 of them submitted the scanned copy of certificates for review (please find **figure 6**), only two county (Xupu County) has not confirmed due to the recent adjustment of project content, but also expected to use the existed construction land. Please find details in the table below:

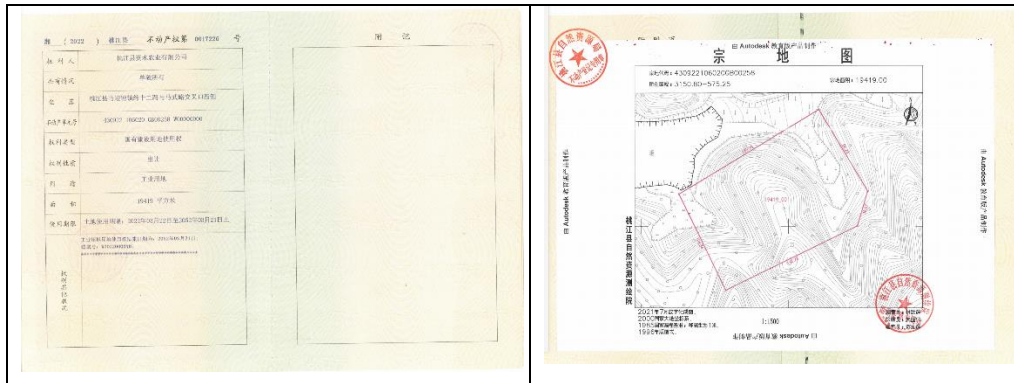
Overall, no physical resettlement is foreseen under the project but the project may lead to minor economic displacement and temporary change of land tenure arrangement. The allocation of land for roads is limited considering their limited width (1.5 to 3.5 meter max, so maximum 2% of an average smallholder plot) and possible compensation for road and enterprise constructions will follow government regulations. For LUR leasing and contributing as equity, smallholder farmers may decide to sign long term land lease with the enterprise but this will not change ownership and will be done through a free and prior informed consent and dedicated government procedure (see institution section and recommendations). During road construction in the plantation bases, it may involve the felling of individual trees. According to the interview with one CDIC of Bamboo and wood processing subproject, during the LUR transfer between landowner (farmers/cooperatives/village collectives) and operators/leaseholders (enterprises), the former are usually responsible for handling the trees on the land. However, due to poor infrastructure within the base and years of neglect, the trees do not grow well. Typically, the landowners leave the management of these trees to the operators, and this responsibility is included in the contract price. Moreover, cultivating high-yield bamboo groves or camellia requires at least a two-year cultivation period, which does

not involve cutting down trees. Therefore, individual tree cutting activities for constructing facilities do not involve compensation or have an impact on the ecology.

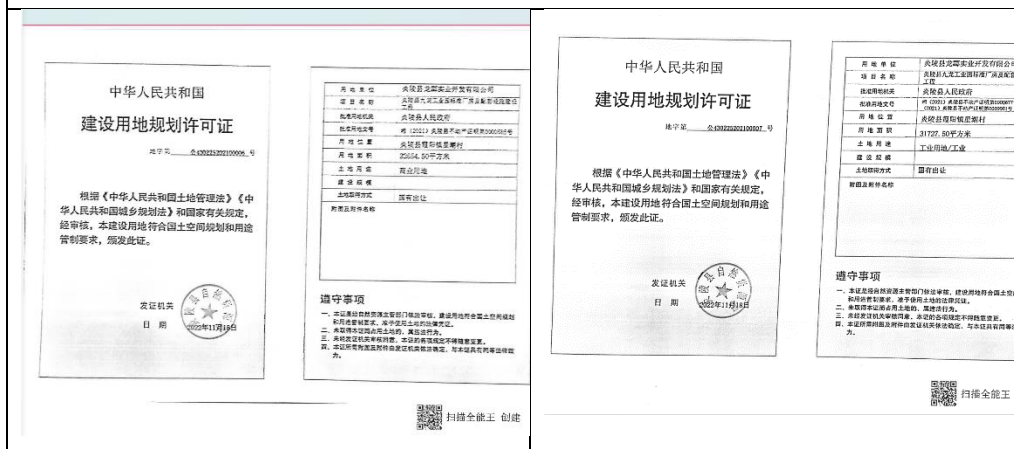
No	Construction types	Potential locations	Land type	Current land use right owners	Obtained approaches	Potential resettlement impacts
Within component 1						
1	plantation base	Existed planting area	Forest land and garden land	State-owned forest farm, individual farmers, village collective	Self-owned; Leasing land use right (LUR) or contributing LRU as equity	No resettlement impact
2	production supporting facilities	Inside the base	Existed roads, irrigation channels	State-owned forest farm, individual farmers, village collective	Included in the plantation bases, temporary land occupation.	Temporary land occupation
3	Rough wood processing facilities	Near the base	Collective construction land	village collective	Leasing land use right (LUR) or contributing LRU as equity	No resettlement impact
Within component 2						
4	roads, centralized heating and other facilities	Inside the industrial park	State-owned construction land	CDIC	Self-owned	No resettlement impact
5	warehouse construction	Inside the industrial park	State-owned construction land	CDIC	Self-owned	No resettlement impact
6	factory expansion	Near the existed factory	State-owned construction land	To be confirmed	To be confirmed	To be confirmed
7	exhibition halls for science popularization and product	To be confirmed	State-owned construction land	To be confirmed	To be confirmed	To be confirmed

exhibition					
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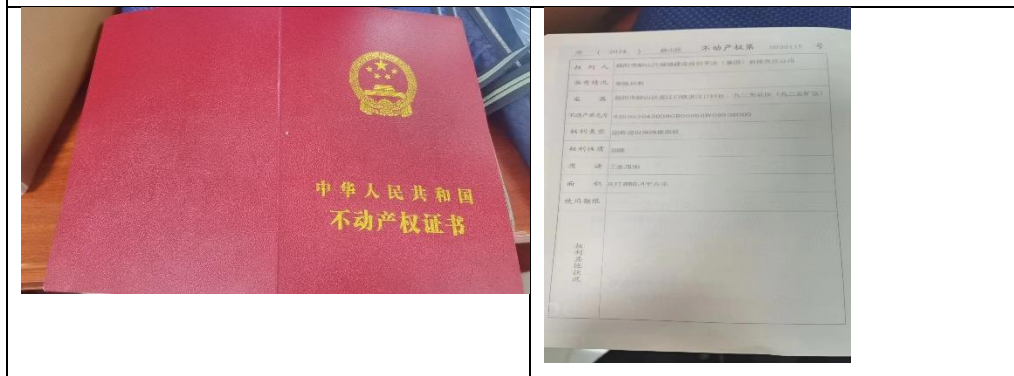
Source: interview with key stakeholders.



Land use permit of Taojiang County PIU



Land use permit of Yanling County PIU



Land use permit of Heshan County PIU

Figure 6 Land use permits of subprojects

Financial intermediaries and direct investments: The project will mainly invest in public infrastructure belonging either to the cooperative / village entity (road and irrigation). The ownership of the industrial park will belong to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure according to government social and environmental safeguards. Furthermore, China has recently updated their environment and social governance system for companies, providing standards for them to report and disclose environment and social elements

and get them certified externally. This will be leveraged by the project to ensure all companies have required environmental and social management system (ESMS).

3 Project Administrative Structure, Management, and Implementation

3.1 Legal and institutional framework for the project

3.1.1 Climate

Climate institution. The Ministry of Ecology and Environment is responsible for designing and monitoring national climate policies. The Department of Climate Change Response is responsible for climate policy implementation. The Hunan Meteorological Bureau is responsible for providing early warning of meteorological disasters and providing agricultural meteorological services in this project

Climate policy: In 2020, President Xi Jinping proposed that China would reach the peak of carbon dioxide emissions by 2030 and make carbon neutrality come true by 2060 at Climate Ambition Summit¹². In 2022, Ministry of Ecology and Environment (MEE) issued National Climate Change Adaptation Strategy 2035 (Second Strategy) which includes four type of adaptation measures: 1) strengthening climate change monitoring, early warning and risk management, 2) improving the ability of adaptation of natural ecosystems, 3) intensifying the resilience of economic and social systems to adapt to climate change, 4) establishing a regional pattern of adaptation to climate change. For agriculture sector, the significant actions are proposed, such as strengthening monitoring, early warning, and disaster prevention and reduction measures, improving the adaptability of the planting industry, guiding the rational development of livestock, poultry, and aquaculture industries, strengthening guarantee system. In line with such, the Medium - and Long-Term Plan on Climate Change issued by the Hunan Provincial government in 2014 proposes to establish a comprehensive mitigation system and enhance the ability to adapt. Improving rural infrastructure systems, especially water, roads and electricity, is a priority for improving the resilience of rural areas and agricultural systems. The plan emphasizes specific programs such as water harvesting, water-saving irrigation, watershed management, conservation agriculture and adaptive varieties.⁹

3.1.2 Biodiversity and environment

Environmental and social safeguards: China legal framework for environmental protection and pollution control consists of more than 80 laws, 120 departmental bylaws, more than 1,000 technical guidelines and standards, and numerous local regulations. It is run under an institutional structure led by EEBs and assisted by multi-sectoral authorities. Major environmental and natural resource management laws include, the *Environmental Protection Law* (1989, amended 2015), *Environmental Impact Assessment (EIA) Law* (2003, amended 2018), *Water Law* (2002, amended 2016), *Water Pollution Prevention and Control Law* (2008, amended 2017), *Air Pollution Prevention and Control Law* (2000, amended 2018), *Solid Waste Pollution Prevention and Control Law* (2005, amended 2016), *Soil Erosion Control Law* (1991, amended 2010), *Marine Environment Protection Law* (2000, amended 2017), *Law of Protection of Wild Fauna* (2004, amended 2018), *Flood Prevention Law* (1998, amended 2016), *Fishery Law* (1987, amended 2013) and *Forest Law* (1998, amended 2009), *Land Administration Law* (1999, amended 2018), *Highway Law* (1998, amended 2017), *Energy Conservation Law* (2008, amended 2018), and *Urban and Rural Planning Law* (2008, amended 2019).

¹ Chai Q M, Fu S, Qi Y, et al. Evaluation on the Paris Agreement work program and prospects for global climate governance [J]. *Climate Change Research*, 2020 (2): 232-242.

² Wang H C, Wang Y J. The change and prospect of China's science and technology policy on adaptation to climate change[J]. *Science & Technology Progress and Policy*, 2021, <https://kns.cnki.net/kcms/detail/42.1224.G3.20210827.1621.012.html>.

The Environmental Protection Law is the fundamental law in the PRC's environmental protection, and pollution prevention and control system. Its 2014 amendment is called the strictest environmental law in the PRC's history, and aims to protect and improve the environment, prevent and control pollution, protect public health, and promote sustainable development, where an EIA should be conducted for projects with environmental impacts. In addition, it stipulates that the state practices an environmental protection target responsibility system, an evaluation system, an ecological protection compensation system, "three simultaneities" system, ^[1] ecological redline protection system, total emission control system for key pollutants, pollutant discharge permit system, etc., and becomes a main tool for the Chinese environmental safeguard system. Such requirements were considered satisfactory in World Bank latest review of environmental management system: The World Bank considered that the institutional arrangement was rational, with sufficient staffing, sound implementation mechanism, public consultation and information disclosure, etc. The world bank assessed that the system is capable to prevent activities from seriously affecting natural habitats and promote sustainable ecological conservation.

Notably the following measures are worth noting in connection with project activities:

- **Ecological protection redlines** set in areas of ecological significance, environmental sensitivity, or vulnerability (human activities prohibited in core areas and development and production construction activities are strictly prohibited in general control areas).
- **Environmental Impact Assessment**, with principle of "Three Simultaneousness" (the pollution prevention and control facilities of a construction project must be designed simultaneously, constructed simultaneously, and put into operation simultaneously with the main components of the project), with different categorization of risks associated to different types of requirements (see forthcoming annex being prepared by consultant)
- **Pollutant discharge permitting** ³ and **Solid Waste Pollution Prevention and Control Law** (amended in 2020) by which entities that generate, collect, store, transport, utilize, treat, or dispose of solid wastes should timely disclose information on pollution control. Entities that generate bamboo processing waste or other wastes should promote recycling or other measures to prevent environmental pollution.
- **Ecological Environment Protection System is regulated by different law**, Water and Soil Conservation Law (2010 Amendment) ensures that project planning for work over 0.5 ha or earthwork or stonework over 1,000 m³ requires a water and soil conservation form or report to prevent soil erosion, Wild Plants Protection Regulations (2017 Amendment) to mitigate impact on local wild plants which shall be assessed in EIA and which prohibit illegal collection of wild plants.: If a construction project may have adverse impacts on growing environment of national or local protection wild plants, the PIU must ensure the impacts be assessed appropriately in the EIA. Any entities or individuals are prohibited to illegally collect wild plants or damage their growing environment.

³ Enterprises and public institutions subject to pollutant discharge permit management should discharge pollutants according to the pollutant discharge permit, and pollutant discharge is prohibited without qualified discharge permits.

Biodiversity protection. In order to protect the diversity of ecosystems, the *Hunan Provincial Wetland Protection Regulations* have been issued. The *Hunan Provincial Regulations on the Protection of Wildlife and Plant Resources* are implemented to protect species diversity. In order to protect genetic diversity, the implementation of the *Hunan Botanical Garden Regulations* have emerged. Shortly after COP15, Hunan Province issued a policy document on biodiversity conservation called "Implementation Opinions on Further Strengthening Biodiversity Conservation", setting action goals. By 2025, the proportion of natural protected areas in the province's land area will remain stable at around 11%, the forest coverage rate will remain stable at over 59%, and the national key protected wild animal and plant species protection rate will reach over 85%. By 2035, a unified and orderly spatial pattern for biodiversity conservation in the province will be formed, and the natural ecosystem situation in the province will fundamentally improve. Typical ecosystems, national key protected wild animal and plant species, endangered wild animals and plants, and their habitats will be fully protected.

The International Fund for Agricultural Development (IFAD) of Hunan Green Development Project (HGDP)

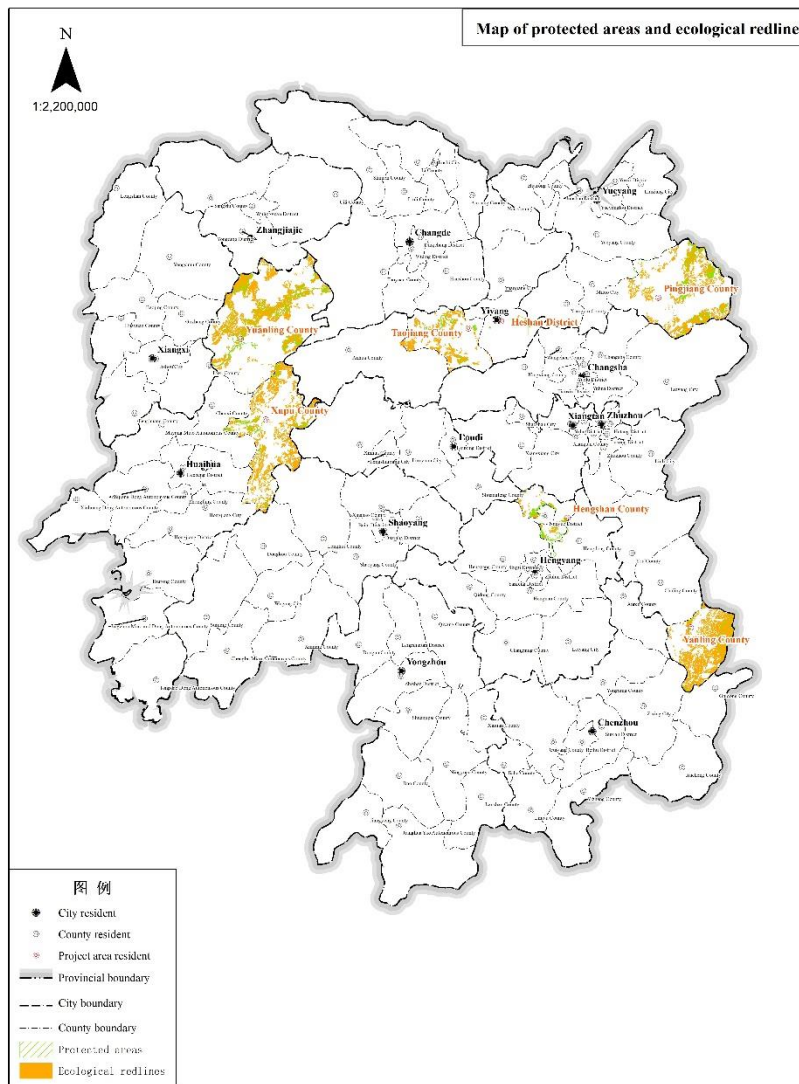


Figure 1 The protected area and ecological redlines

3.1.3 Specific laws guiding infrastructure

Rural Revitalization Promotion Law (2021) guides the overall scope and purpose of the project: Rural revitalization should include ecological protection in terms of conserving resources (e.g. water saving, energy saving), controlling NPS pollution (e.g. reduction of fertilizer and pesticide), improving rural living environment (e.g. sanitary toilets, rural domestic solid waste sorting and management, rural domestic wastewater treatment), improving safety of cropping inputs (e.g. prohibition of highly toxic and high residue pesticides), and protecting rural environment (e.g. recycling of crop straw, and utilization of livestock and poultry manure), etc.

Road constructions (inside the project industrial parks) is guided by various standards: National standard : Technical code for village road engineering (GBT_51224-2017) , National standard : Well-facilitated farm land construction—General rule (GB/T 30600-2022) Ministry of transportation standard: Design Specifications for Low Volume Rural Highway Engin (JTG / T3311—2021. All the different standards include several environmental requirements which are included in this framework and draft plan:

- The selection of road routes should reduce the impact on the ecological environment, save land resources, avoid bad geological areas, avoid high filling and deep digging, prevent soil erosion, and protect the environment.
- Adapt to local conditions and terrain.
- Demolition of farm houses and occupation of arable land should be minimized as much as possible.
- Encourage the use of green materials and processes, build ecological canal systems, buffer zones, etc., to reduce adverse impacts on the environment.
- If the original road can be used, it should be maintained and utilized as far as possible, and the repaired road should meet the corresponding design standards.
- New roads should be arranged along irrigation, drainage channels and field edges to reduce crossing buildings.
- On the main, branch canal, the top of one side can be widened as a road.
- For production roads in the farm, the pavement should use sand, mud, plain soil pavement and other permeable pavement. In heavy rainfall areas, concrete pavement can be used.

The Laws and specifications requirements and regulations on the construction of forest industry infrastructure are The Forest Law of the People's Republic of China (2019 amended)⁴ and Regulations on the Protection of Forest Resources⁵ issued by the National Forestry and Grassland Administration. In 2023, a Standard for Occupation of Forest Land by Engineering Facilities Directly Serving Forestry Production and Operation (Trial)⁶ was issued and used broadly most provinces in China to further explain the “**engineering facilities directly serving forestry production and operation on forest land**”(simply called “forestry infrastructures”), which includes: Facilities for cultivating and producing seeds and seedlings; Facilities for storing seeds, seedlings, and wood; Skid tracks, transport tracks, fire patrol tracks, and forest trails; Forestry research and popular science education Educational facilities; Wildlife and plant protection, forest protection, pest control in forestry, and forest prevention facilities for fire and wood

⁴ 中华人民共和国森林法 <https://www.forestry.gov.cn/c/www/gklcf1/300102.jhtml>

⁵ 中华人民共和国森林法实施条例
<https://www.forestry.gov.cn/main/3950/20170314/459869.html>

⁶ [20230216101813023797403.pdf](https://www.forestry.gov.cn/main/3950/20230216101813023797403.pdf) (forestry.gov.cn)

quarantine; Infrastructure for water supply, power supply, heating, gas supply, and communication facility; Other engineering facilities that directly serve forestry production. During the construction of forest roads, measures should be taken to protect forest resources such as trees, water sources, wild animals and plants, and prevent natural disasters such as soil erosion and landslides. In order to enhance the ability of natural resource services to ensure the use of land for rural revitalization, the Ministry of Natural Resources has formulated the "Rural Revitalization Land Policy Guidelines (2023)"⁷.

They are jointly regulating forest industry infrastructure. They provide detailed standards for constructing forest infrastructure, focusing on legal land use, conservation principles, and efficient resource utilization. It specifies dimensions and guidelines for various facilities including seed and sapling cultivation, storage, pathways, research, wildlife protection, and basic utilities, aiming to support forestry production and management while ensuring ecological sustainability and compliance with national laws and regulations.

The under-forest economy is a new thing that has emerged in the field of agricultural production, and interplanting of Chinese medicine plants is an important component of under-forest economy. In 2013, pilot projects were launched in Guangdong, Jiangxi, Heilongjiang, Sichuan and other provinces to subsidize the under-forest Chinese medicine plantation, and the central government invested CNY 380 million to subsidize the under-forest Chinese medicine plantation. "The Guiding Opinions of the National Forestry and Grassland Administration on Promoting the High-quality Development of the Forest and Grass Industry" issued in 2019 proposed to "consolidate and enhance the development level of the economic activity under the forest", and to provide policy support for the under-forest Chinese medicine industry from fostering plantation and formulating technical regulations. In 2020, the National Development and Reform Commission and 10 other ministries/commissions issued "the Opinions on the Scientific Use of Forest Resources to Promote the High-quality Development of Woody Grain and Oil and Under-forest Economy", proposing to actively develop under-forest farming and related industries such as medicine plants, and put forward supporting policies from the use of forest land, industrial integration, taxation and finance. Under the promotion of relevant national policies, many provinces have successively issued support policies for the development of forest sourced Chinese medicinal materials industry. Sichuan, Heilongjiang, Yunnan, Guizhou, Shaanxi, Jiangxi and other provinces have formulated policies and preferential measures to accelerate the development of under-forest Chinese medicine plantation⁸. The under-forest Chinese medicine plantation in Hunan is vast, under-forest interplanting medicinal materials such as rhizoma polygonati, cortex phellodendri, polygonatum odoratum and dioscorea zingiberensis are widely planted in mountain areas in Hunan as well as in other provinces.

3.1.4 Employment and labor laws and regulations

China has a relatively comprehensive framework requiring sound and fair treatment of all types of workers, increasing enhancement of occupational health and safety, prevention of child labor use and forced labor etc., which are generally in alignment with the requirements of SECAP Standard 5. Furthermore, institutions from county level to the national level have been established to manage labor and social enforcement and ensure and supervise their enforcement. It is recognized that the labor supervision by different level of authorities (e.g. labor bureaus, work safety bureaus, etc.) are increasingly strengthened. Following the legal requirements, it is mandatory for enterprises to develop and implement labor management policies,

⁷ <http://gi.mnr.gov.cn/202311/P020231129420620076449.pdf>

sign formal labor contracts, put in place grievance redress mechanisms with contact details (supported by the government- managed arbitration and judicial systems), as well as design, install and operate OHS related facilities and measures to protect the benefits and health and safety of workers. The Department of Human Resources and Social Security of Hunan Province has formulated regulations and policies to safeguard the labor security rights and interests of workers⁸, including the contract workers, which compliance with SECAP Standard 5' requirement about contractor/third-party workers.

Enterprises provide safety training and education to new employees, so that they understand the company's safety production rules and regulations and operating procedures, and acquire necessary safety knowledge and skills. Enterprises establish a safety production archive management system to record various activities and achievements of safety production work, providing reference and lessons for future safety production work. Enterprises follow the labor rights protection law, giving equal employment rights to female workers and prohibiting gender discrimination.

3.1.5 Land tenure

Land acquisition and compensation: People that will need to provide their land permanently due to the project construction will have to be compensated by the Law of the People's Republic of China on Land Administration. The compensation standards for land acquisition include compensation for the land loss and resettlement subsidies for livelihood restoration. Under the principle of the national unified guarantee of the basic living standards and property rights and interests of the expropriated farmers, each province and city formulated specific compensation standards for land acquisition and resettlement according to the different levels of local economic development.

Over the forty-year opening up, China has established comprehensive legal system governing land acquisition and resettlement, narrowing down the gaps with international best practices (e.g. World Bank OP 4.12, ESS5, etc.). The likely subprojects to be funded by HGDP should strictly comply with the relevant laws and regulations of China governing land acquisition and resettlement. Subprojects that related with factory expansion which have not confirmed may involve a small part of permanent land acquisition. Mostly, these facilities are usually built in government-planned industrial parks, where the land is often acquired and reserved by local governments before determining projects. In a few cases, new land acquisition will be involved although the size may not be large. In PRC, land acquisition and resettlement are managed by the government. For the past land acquisition and resettlement, the challenges are how to and whether can find adequate evidences to demonstrate its compliance status. If some gaps are identified via due diligence review for past land acquisition, the enterprises would have limited influence on the government for correction. These risks with past resettlement should be fully considered for subproject according to "**Prior displacement**"⁹ in SECAP Standard 7. The new amendments on Land Administration Law (2019) will take effect on January 1, 2020, which strengthens upfront risk management for land acquisition to better protect the interests of affected farmers (Article 47) and substantially improved the key principles on compensation for land acquisition and resettlement to secure legal rights and

⁸ https://rst.hunan.gov.cn/rst/xxgk/zcfg/zxzc/202201/t20220113_22461250.html

⁹ Where displacement has already occurred in anticipation of the project, an audit will be conducted to identify: • Any deviations from this Standard created by past activities; and • Corrective actions required to ensure compliance with this Standard. Time-bound corrective action plans should describe all activities required to attain compliance with this Standard, including budget, implementation arrangements, allocation of roles and responsibilities, and implementation schedule.

livelihood sustainability for affected farmers. The new Land Administration Law thus to a greater extent bridges the gaps with SECAP Standard 7, which will apply to new land acquisition and resettlement in the project. Since the footprint size of a new facility may not be large, the social risks associated with new land acquisition is considered moderate-low risk. All the subprojects with minor resettlement will follow China's laws and regulations on land acquisition and resettlement. Where a subproject involves a risk of resettlement, documentation of the land acquisition process consistent with PRC requirements and the gap filling measures to bridge IFAD SECAP Standard 7 requirements will be prepared by implementing agency. Key information of the resettlement planning documents will be disclosed to the affected persons and other stakeholders.

For the forest land occupation by the construction of forestry infrastructures, the Standard for Occupation of Forest Land by Engineering Facilities Directly Serving Forestry Production and Operation (Trial) stipulates detailed standards for constructing forest infrastructure, such as width of roads, the land area of the drying yard, floor area of production buildings, management buildings, monitoring stations, outposts, workstations, etc. Article 52 of the newly revised Forest Law, which came into effect on July 1, 2020, stipulates: "If the construction of the following engineering facilities directly serving forestry production and operation on forest land meets the standards set by relevant national departments, it shall be approved by the forestry department of the people's government at or above the county level, and there is no need to go through the approval procedures for construction land; if it exceeds the standards and needs to occupy forest land, the approval procedures for construction land shall be handled in accordance with the law." and Article 21 of Management Specification for Review and Approval of Forest Land Use in Construction Projects¹⁰ (GJLYJL No.42[2016]) stipulates that: "The state protects the legitimate rights and interests of forest rights holders in accordance with the law. If construction projects use forest land, compensation shall be given to the forests, trees, and forest land of the units and individuals involved in accordance with the law." Article 22 stipulates that: "After the temporary occupation of forest land by construction projects expires, the land-use unit shall restore the forestry production conditions of the used forest land within one year."

Land use right transfer. China's rural land system is somewhat unique worldwide with its own features. The China's Household Responsibility System was instituted in 1979, which ended collectivized agriculture, retained the rural land ownership to the rural collectives (normally executed by the rural village committees) and granted more extensive land- use rights to individual households in a largely egalitarian fashion of particular villages. A series of policy documents were issued later on to adapt to changing circumstances and improve the security of farmer's land rights by: (i) extending the terms of their granted rights; (ii) limiting the ability of local officials to readjust the amount of land a household could use; (iii) "inventing" new land rights (e.g. land operation rights) in adaption to new circumstances and formally codifying it into law to endow farmers with a more comprehensive structure of land rights to strength farmers ' interests; and (iv) China formally has in place laws to regulate the leasing of LUR.

China has issued a set of laws and regulations to govern leasing of LUR in rural area. The key national laws and regulations include the Land Administration Law of PRC (2004), Property Rights Law of PRC (2007) and Rural Land Contracting Law of PRC (2018), effective as of January 1, 2019. The law reaffirmed that the collective should contract the farmland to individual households with legally fixed term at 30 years, pasture land for 30-50 years and forestry land for 30-70 years, which will be renewed for another same period upon expiration of the preceding contracting

¹⁰ [建设项目使用林地审核审批管理办法 国家林业和草原局 \(forestry.gov.cn\)](http://www.forestry.gov.cn)

term. The law further added under Item 2 of Article 27 that land contracting rights to the migrate-out farmers are strictly protected and relinquishing land contracting right should not be treated as one of eligibility requirements for farmers to apply for urban household registration. The law in result can secure long-term land rights for famers regardless their household registration is changed, or even they have relocated to and lived in the urban areas.

During the contracting period, the household can lease out farmland for agricultural use. Formal institutions at all administrative levels from the township to the nation have been established to manage leasing of LUR. Undercurrent context, the government encourages enterprise or cooperatives obtain the LUR (mostly in the form of leasing) from farmers to achieve moderate-large scale farming, livestock-breeding and agro-forest plantation.

Except the rural land contracted to individual households, there are **collective-managed land**, which can be used for the construction of rural public infrastructure, such as field production road, canals, water conveyance channels, ditches. In the project, some of the On January 28, 2021, the Ministry of Natural Resources, the National Development and Reform Commission, and the Ministry of Agriculture and Rural Affairs issued the "Notice on Ensuring and Regulating the Use of Land for the Integrated Development of Primary, Secondary, and Tertiary Industries in Rural Areas." It states that rural collective economic organizations starting businesses, or jointly establishing businesses with other units or individuals through forms such as contributing LUR as equity (shares) or joint ventures, may use the construction land determined by planning in accordance with Article 60 of the "Land Management Law." Units or individuals may also use collective operational construction land through channels such as market entry, in accordance with national uniform deployment, by means of transfer, lease, and other methods. Explore the market transactions of collective construction land in compliance with planning, after the rural collective legally and appropriately handles the interest relations of the original land rights holders, in accordance with the operation of rural collective construction land. Article 63 of the "Land Management Law" states that landowners can lease or sell land to individuals or entities. There are two main requirements for this process: Firstly, a written contract must be made that details the land's boundaries, size, start date, use duration, intended use, planning conditions, and both parties' rights and obligations. Secondly, the transfer or lease must be approved by over two-thirds of the members or representatives of the collective economic organization's village meeting.

In March 2021, Ministry of Agriculture and Rural Affairs issued the Management Measures for the Rural Land Use Rights Transfer¹¹, The regulation, "Management Measures for the Transfer of Rural Land Operating Rights," issued by the Ministry of Agriculture and Rural Affairs of the People's Republic of China, establishes a legal framework for the transfer of land operating rights in rural areas, aiming to standardize transactions, protect the rights of parties involved, and promote the modernization of agriculture and rural areas. Key points include:

1. Principles of Transfer: The transfer of land operating rights must adhere to the collective ownership of rural land by farmers, maintain the stability and longevity of land contract relationships, and follow the principles of legality, voluntariness, and compensation. Any form of coercion or obstruction in the transfer process is prohibited.
2. Protection of Rights: The regulation ensures that the rights and interests of the rural collective economic organizations and stakeholders are protected. It prohibits actions that harm agricultural production capacity and the ecological environment,

¹¹ [农村土地经营权流转管理办法 国务院部门文件 中国政府网 \(www.gov.cn\)](http://www.gov.cn)

change the ownership nature of the contracted land, or divert agricultural land for non-agricultural purposes.

3. Management and Guidance: The Ministry of Agriculture and Rural Affairs is responsible for guiding the transfer and contract management of land operating rights nationwide. Local governments at the county level and above are tasked with managing these transfers within their administrative areas.

4. Transfer Parties: The original landholders have the right to decide on the transfer, including the transferee, the method, and the duration of the transfer. The transferees should have agricultural operating capabilities or qualifications, with members of the local collective economic organization having priority under equal conditions.

5. Transfer Methods: Land operating rights can be transferred through leasing, shareholding, or other lawful and policy-compliant methods. The contract relationships between the original landholder and the land-issuing party remain unchanged through the transfer process.

6. Contractual Agreements: A written contract is required for the transfer of land operating rights, which should be filed with the issuing authority. The contract should detail the rights and obligations of both parties, the duration, method, and purpose of the transfer, among other essential elements.

7. Dispute Resolution: In case of disputes or conflicts arising from the transfer of land operating rights, parties can opt for negotiation, mediation by village committees or local governments, arbitration through rural land contract arbitration institutions, or litigation in the people's courts.

8. Regulatory Framework: The regulation encourages the establishment of land operating rights transfer markets or rural property rights exchange markets, and local governments are to provide guidance and support for these markets, ensuring transparency, fairness, and legal compliance in transactions.

This regulation is aimed at protecting farmers' rights by ensuring that land operating rights transfers are conducted legally, transparently, and in a manner that safeguards the interests of all parties involved, especially the rural landholders. It promotes a balanced development of agriculture by preventing the misuse of agricultural land and supporting sustainable farming practices.

Overall, China's regulatory system on land leasing is comprehensive, the project counties have extensive experience in bamboo, camellia, and medicinal herbs plantation and land transfer. Through interviews, it has been understood that this process is transparent, open, based on market prices, and free from coercion. Especially in some project counties, digital management of land transfer is adopted, and online transactions can be conducted. Therefore, it aligns with the requirements of SECAP, and there is no discrepancy.

3.1.6 Policies and laws relevant to ethnic minority development

China has adopted a policy of ethnic equality since 1949, in which all ethnic minorities are regarded as legally and constitutionally equal. Policies and regulations incorporate a variety of measures to address the needs of ethnic people, including the setup of autonomous governments at various levels, special considerations in education, and funding of programs for the development of ethnic minorities. About the nationality affairs, either national or provincial government has a series of laws and regulations. *The Law of the People's Republic of China on Regional National Autonomy* clarifies the state policies on ethnic affairs. The White Paper Book on this law was officially publicized in 2004 for the first time. *The Law of the People's Republic of China on Regional National Autonomy* is fully applicable to HFRDP. Article 2 in Chapter 1 points out that ethnic autonomy shall be applied

in areas inhabited by minorities; Article 28 in Chapter 1 indicates that the ethnic autonomy governments should manage and protect local natural resources, and it has the priority to utilize local natural resources in suitable ways for local development in accordance with the planning of laws or national government. Article 65 also stipulates that when the state to utilize resources in autonomous minority area for development, the interests of minority autonomous region and arrangements in favor of local economic development, local minorities' life and production shall be taken into account. The State should compensate for when natural resource export happens in ethnic autonomous regions.

In the Preamble of 1982 Constitution, it states that: "The People's Republic of China is a unitary multi-national state built up jointly by the people of all its nationalities. Socialist relations of equality, unity and mutual assistance have been established among them and will continue to be strengthened". Constitution Article 4 indicated that "All nationalities in the People's Republic of China are equal. The state protects the lawful rights and interests of the ethnic minorities and upholds and develops a relationship of equality, unity and mutual assistance among all of China's ethnic groups. Discrimination against and oppression of any nationality are prohibited; any act which undermines the unity of the nationalities or instigates division is prohibited. The state assists areas inhabited by minority nationalities in accelerating their economic and cultural development according to the characteristics and needs of the various minority nationalities. In the struggle to safeguard the unity of the nationalities, it is necessary to combat big-nation chauvinism, mainly Han chauvinism, and also necessary to combat local-national chauvinism. The state will do its utmost to promote the common prosperity of all the nationalities." The *Common Program of Chinese People's Counter Political Consultative Conference* settled in 1949 and the *Constitution of the People's Republic of China* in each amendment have clearly pointed out that the minorities have the freedom to preserve or reform their ethnic customs. In 1994, the CPC HN Provincial Party Committee and HN Provincial People's Government issued a number of preferential policies on ethnic minorities and socio-economic development in their inhabited areas, and the No.23 document of 1994 have actively helped the Ethnic minority to develop forestry economy. The 14th Five-Year Plan of Hunan Province for Ethnic Affairs was promulgated in December 2021, putting forward six specific indicators and 42 key projects in social and economic development, people's livelihood improvement, ecological and civilization construction, rural revitalization, nation community consciousness and ethnic unity and development. The World Bank has assessed that both central and Hunan governments make top-down systematic planning and arrangement in ethnic minority development to create job opportunities for minority residents and improve their living standard and it's required to conduct prior public consultation for relevant plans and projects in accordance with the Interim Regulations on Major Administrative Decision-making Procedures.²

During DRM, the ethnic minorities in the project area have been identified, mainly concentrated in Xupu County. PMO, PIU and subproject enterprises will give full respect to the identity characteristics, dignity, human rights, lifestyles and cultural characteristics of ethnic minorities during project design and implementation process so that ethnic minorities can (i) obtain social and economic benefits that suit their cultural traditions; and (ii) be free of negative impact of subproject. The project will improve economic status and development capacity of ethnic minority people and communities involved through improvement of their land productivity and climate-resilience production infrastructures. There is no risk anticipated of the project to the ethnic minority people in the project areas. However, the project may be sited within commuting distance of indigenous communities, and offer employment to indigenous people. Therefore, an IPPF plan has been formulated as well as an FPIC in a culturally appropriate manner.

3.1.7 Rural institutions and Stakeholder participations

Women's Federation is dominant organization all over china as well in Hunan and in project area. Hunan Women's Federation (HWF) is the dominant women's organization in the Province and playing important role in gender mainstreaming and empowerment in project area. HWF is catering for all ethnic with aim to create a bridge between women and government while making important decisions for safeguarding women's rights, and promoting gender equality. HWF has offices and representatives at the provincial, prefecture and county levels, and has very strong linkages down to the grassroots levels with representatives in townships and administrative villages. Since 2016, under the reform arrangement of All China Women's Federation (ACWF), HWF has expanded its organization structure from a representative to the federation with elected members of 40 at county level, 28 at township level and 18 at village level. Consequently, HWF has stronger linkages with grass root women, and women's mobility in the project area is ensured.

Communist Youth League (CYL) is the most extensive youth organization through the country, and it has positioned itself as the organization systematically serving for youth development widely on youth ideology and morality, youth education, youth health, youth marriage, youth career-orientation and employment, youth culture, youth social inclusion and participation, adolescent rights protection, adolescent delinquency prevention, and youth social security. Hunan Communist Youth League (GCYL) has very strong linkage through grass root. Besides CYL at provincial, prefecture, county and township levels, CYL also has its branch at village level.

The government has existing practices of beneficiary engagement, disclosure and vertical complaint systems and practices of the governments at all levels. For instance, under the guidance of the people's government at the township level, the villagers' committee may organize the construction of village roads and local infrastructures in accordance with the principle of voluntary and democratic decision-making by villagers and the system of one case, one discussion. Designated channels and hotlines **are** publicly disclosed for receiving complaints and reports. There are early warning and defensive measures for emergencies. If necessary, arbitration and appeal can be conducted.

Environmental and social governance of enterprise

Policy on ESG : In June 2018, the China Securities Regulatory Commission (CSRC) issued the *Code of Corporate Governance Guidelines for Listed Companies*, formally establishing a framework for Environmental and Social Governance disclosure. The CSRC revised its requirements for annual and semi-annual reports in 2021, requiring listed companies to disclose ESG information. On December 21, 2021, the Ministry of Ecology and Environment released the **Measures for Enterprises to Disclose Environmental Information by Law** to regulate enterprises' disclosure of environmental information by law. They came **into force from February 8, 2022**, requiring five types of enterprises to disclose environmental information. The five categories of enterprises are: key pollutant-discharging enterprises; enterprises that are subject to mandatory review for clear production; listed companies and their subsidiaries at all levels; enterprises that issue enterprise bonds, corporate bonds, and debt financing instruments for non-financial enterprises; and other enterprises that should disclose environmental information under laws and regulations.

The ESG framework includes different types of policy covering financial institutions, instruments and business entities (CCDCC, 2023)

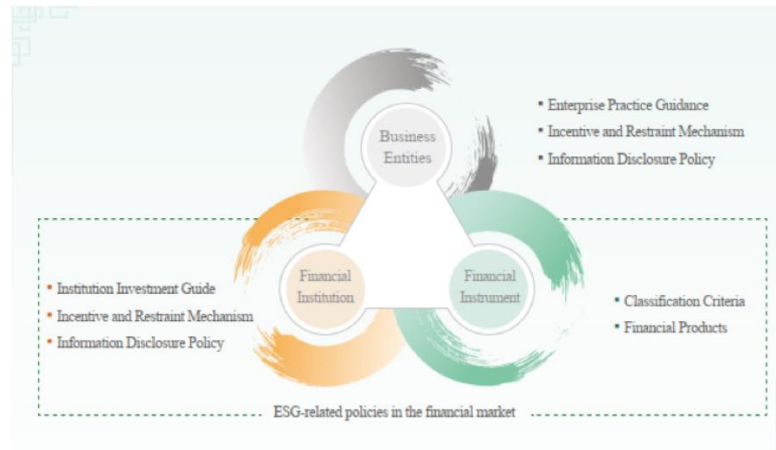


Figure 1. China's ESG-related policy framework (China Central Depository & Clearing Co., LTD. and International Capital Market Association)

ESG standards and rating was introduced relatively late in China. However, an increasing number of companies are covered by domestic and international rating agencies which have emerged in China since 2015. Voluntary disclosure guidelines were published in June by the China Enterprise Reform and Development Society (CERDS) in June 2022. The recent guidance is comprised of three tiers of indicators with corresponding metrics to each tier, with ten second-level indicators, 35 third-level indicators and 118 fourth-level indicators. Most of the indicators align with ESG issues highlighted in international disclosure standards and IFAD standard 8, including review of consumption of resources & pollution, climate change, pollution, labor rights, community engagement, risk and disaster management, disclosure and stakeholder engagement mechanisms (see detailed review in annex 2)

Disclosure requirements and trends

They are expected to increase, including regarding carbon to meet [three major carbon milestones](#) for 2025, 2030, and 2060 for China to peak carbon and become carbon neutral. Other driver includes green finance which is the primary manifestation and driver of ESG investment in China¹². The People's Bank of China and six other ministries issued the Guidelines for Establishing the Green Financial System in 2016, which set out the basis for green finance and later on, environmental reporting compliance standards; A subsequent series of policies have been released to guide and standardize green finance, which has continuously increased the scale of the green credit and bond market. There are seven main ESG investment strategies: ESG integration, negative screening, norms-based screening, positive screening, shareholder engagement, sustainability investment and impact investment. Among these, screening strategies are the main type of ESG investment strategy used by institutional investors in China¹³ and will be used there alongside capacity development of enterprises.

According to the interview with CDIC of Heshan County and camellia oil enterprise of Pingjiang County, E&S related personnel have been dedicated to environmental,

¹² [Green Finance trends in China \(1\): China's Green Finance Policy Landscape - Green Finance & Development Center \(greenfdc.org\)](#)

¹³ Hongtao Shen, Honghui Lin, Wenqi Han, Huiying Wu, ESG in China: A review of practice and research, and future research avenues, China Journal of Accounting Research, Volume 16, Issue 4, 2023, 100325, ISSN 1755-3091, <https://doi.org/10.1016/j.cjar.2023.100325>.

safety, community liaison tasks (such as land transfer), and more. For instance, CDIC has formed a development project team for the industrial park, comprising 10 members. This team is not only responsible for the preparation and management of the project but also handles the park's investment attraction and operational management. Currently, there are specific admission requirements for enterprises within the park, demanding compliance with environmental and social legal regulations. Although some supervision and inspection tasks are conducted, such as requiring agricultural lists for planting projects to screen and control pesticide use, the primary reliance is on relevant functional departments for oversight activities. The surveyed camellia oil enterprise has specialized environmental protection and safety departments, a human resources department responsible for labor issues, and a Quality Management department for ISO system certification. Both the CDIC and the oil enterprise are interested in integrating the existing dispersed national standards for environment and social aspects. They are also keen on referencing templates of good international practices to develop a similar Environmental and Social Management System (ESMS) guide. This guide aims to effectively manage enterprises in the industrial park and could also serve as one of the screening criteria for investment promotion. The ongoing Kfw project on the development of minimal standards for ESMS of the enterprises could be used for reference.

3.2 Project review and approval process

AWPB. Annual Work Plan and Budgets (AWPBs) is a planning and management tool for the project implementation that review progress and plans for budget, activities and procurement. AWPB will include review of implementation of safeguards and integrate safeguard activities within general planning. **AWPB review and approval is done with** full consultations with the upper bureaus and departments of the same line will be necessary before submitting the draft AWPBs to CPMOs. The CPMOs should consult with relevant agencies in finalising the draft AWPBs prepared by the IAs and submit them to the PLGs for review and clearance, prior to submitting them to the PPMOs. PPMO should consult with relevant departments in consolidating the AWPBs and submit them to the provincial PLG for review and clearance before submitting them to IFAD for "no objection" review.

Production and business plans will be developed at provincial level by the Provincial Forestry Department, County Forestry Bureau & CDIC & Cooperatives for the inclusive and sustainable management of the selected value chain commodity. Such plans will integrate safeguards a Selection criteria have been included in PDR / PIM and include safeguards and ESMS requirements.

A step-wise participatory process will be adopted for implementation of each infrastructure sub-project, including: (i) participatory need assessment on infrastructure development based on local development plans on poverty reduction, forest industry production and their requirements on infrastructure services; (ii) identification/establishment and training of infrastructure management organizations; (iii) system planning, engineering survey and design of infrastructure systems including required social and environmental safeguards study / impact assessment; (iv) consultation and finalization of system planning and engineering designs, including discussion and agreement on the O&M responsibilities of infrastructure management organizations; (v) implementation of construction and supervision; (vi) inspection of construction completion and handing-over of O&M responsibilities to infrastructure management organizations; (vii) implementation of normative O&M by infrastructure management organizations; and (viii) facilitation of women's involvement in each of the above steps and ensuring that village committees are well engaged; ensure free and prior informed consent sought;.

The system planning and engineering design of the proposed infrastructure shall follow the technical specifications issued by the relevant government agencies. County Forestry Bureaus should work closely with Water Bureaus, Transportation Bureaus, Power Bureaus, and Environmental Protection Bureaus to ensure that construction programs are in line with government strategies and policies. Qualified experts should be selected to provide technical assistance and training to the project. Prior to the commencement of each infrastructure project, a corresponding infrastructure management body should be identified/established to fully participate in the whole process of system planning, design and construction supervision, and assume the responsibility for operation and maintenance after the completion of the project.

3.3 Safeguard provisions built in to the project cycle

The project cycle has integrated safeguard provisions in different parts of the project cycle:

- **Integrated climate resilient and socially inclusive planning:** the preparation of production and inclusive business plans will integrate climate, environment and social risks and measures and therefore ensure a overall framework for investments and infrastructure specifications and requirements. Such plan development shall closely involve beneficiary and village committee and seek prior and informed consent. Such step will also provide an opportunity to ensure **integration of climate, environment and social issues & consultation in feasibility and preparatory study.**
- **The project infrastructures activities will be subjected to government planning and management process which requires the "3 simultaneous"**, meaning that safeguards are always conducted and implemented together with the project. Government social and environmental regulations have been evaluated as satisfactory by IFAD against their safeguards in terms of environmental impact assessment and follow-up supervision system, to oversee projects' performance in avoiding, reducing, or mitigating negative impacts on the environment.
- **Monitoring system** is including environmental and social indicators and additional SECAP related indicators are proposed
- **Project planning and reporting framework (i.e. annual work plan and budget, yearly report)** includes provision to review implementation of safeguards
- **Bidding and procurement** will include criteria related to ESCMP / environmental and social management (see SECAP procurement plans) and shall ensure that selected enterprises have and/or commit to deploy capacities to implement safeguards

Maintain government and people participation in operation and management of investments and build their capacities to manage safeguards: The project will mainly invest in public infrastructure belonging either to the cooperative / village entity (road and irrigation). The ownership of the industrial park will belong to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure according to government social and environmental safeguards.

3.4 How consultations, disclosure and grievance mechanisms will be undertaken

Stakeholder consultation and public disclosure are part of the overall project process (see stakeholder engagement plan and FPIC) and will also be leveraged for safeguards.

- **Enterprise shall disclose their environmental and social management plans and submit annual report** on their activities as well

as implementation of ESCMP and be subjected to routine visits by project and entities responsible for that at government level

- **To strengthen consultation and voice of women**, the Women's Federation (WF) will be invited to facilitate project implementation at the local level. At county level, the WF will be assigned the role of Deputy Director of the CPMO to oversee the gender related aspects and activities of the project and facilitate and support elements that could help in transforming awareness about the positive role that women can play in rural revitalization and to create greater support for them in all decision-making forums and providing them greater access to decision-making and leadership roles, and access to assets, resources and markets. At the village level, village WF chair and other three women will join the Village Implementation Group (VIG) as its key members. The WF will also be expected to use the various HGDP platforms to publicize and create awareness about gender issues, protection of women's rights and other aspects such as gender-based violence, etc.
- **To Strengthen youth participation and roles:** At county level, the CYL will be expected to work closely with the PMO on supporting project activities related to youth and coordinating the participation of youth associations and related platforms to encourage youth participation. At the village level, CYL will help the project to leverage other opportunities for entrepreneurship and employment of rural youth

The project will **use government own consultation, disclosure and grievance procedures:**

- **Consultation and disclosure** with different types of consultation and disclosure required depending on the categorization of the project (see next sections):
- **Grievance redress.** The right of citizens, legal persons, and other organizations to report and complain about environmental pollution and ecological damage activities is defined in the revised *Environmental Protection Law* (2015), article 57. The *Administration on Resolving Environmental Complaints* issued by MEE in 2006 is the key document regulating environment related grievances. Its implementation is supported by the *Environmental Hotline Management Measures* (effective since 1 March 2011). The environment hotline, "12369," is a centralized grievance redress mechanism (GRM) accessible all over the PRC. The public can complain through the hotline or submit complaints through the official website (<http://www.12369.gov.cn/>) with description and supporting photos. The public is encouraged to participate in environmental supervision through these platforms (Article 10 of Management on Environmental Protection Supervision during Project Construction and Operation). To encourage more public participation in the supervision of pollution, MEE has launched the hotline on instant messaging service platforms such as WeChat, for which the access portal is provided on the official website of the platform. Responses to complaints received are also published on the website. The public can visit the 12369 platform to check the progress of their reports. Since June 2020, the 12369 environmental reporting hotline has been integrated into the 12345 government service hotline.

In addition, at project county level, concerns or complaints may arise related with environmental and social performances. In order to ensure that the affected people can voice their complaints, a grievance mechanism will be established within this SECMFESCMF and also in relevant E&S documents (such as SEP and IPPF.) with clear contact details of the responsible project personnel (s). The purpose of this

grievance redress procedure is to provide a mutually satisfactory means for rapid response to any complaint of affected people. The grievance mechanism is accessible to all members of the community.

Project county level GRM should be made accessible to the affected persons, local people and other interested parties in the project area of influence. The grievance mechanism for subproject is more relevant to address potential complaints regarding environmental and social aspects. Please find the simple of GRM in Annex ??.

At anytime in the grievance mechanism, the complainant may contact the local courts. The grievance mechanism does not affect public rights under the PRC regulation on Letters and Visits, which requires a complaint acceptance mechanism at all levels of government and protects complainants from retaliation.

Each CPMO will inform the local community and the affected people of the grievance and appeal procedure through public information meetings, the information brochure and other media, so that they can fully understand their rights for grievance and appeal.

If a subproject affects indigenous peoples or ethnic minority communities, a grievance mechanism will be established that will promptly respond to the concerns and dissatisfaction of the affected indigenous peoples. It should also adopt an easy-to-understand and transparent procedure, be free of gender discrimination, and adapt to the cultural traditions of the affected indigenous people. News of the system's establishment should be promptly sent to the affected indigenous peoples and community.

GRM for Workers

For labor disputes, the workers grievance mechanism will be described in staff induction trainings, which will be provided to all project workers. The mechanism will be based on the following principles:

- • The process will be transparent and allow workers to express their concerns and file grievances.
- • There will be no discrimination against those who express grievances and any grievances will be treated confidentially.
- • Anonymous grievances will be treated equally as other grievances, whose origin is known.
- • grievances will be seriously treated and timely and appropriate action in response will be taken.

The workers' grievance mechanism should not prevent workers to use conciliation procedures in terms of *China's Labor Law (2018 amended)*¹⁴.

Meanwhile, all GRMs should be publicized on local website, PIU's website, project sites and related communities. The PIU is responsible for keeping records of all grievances and resolutions and report to CPMO through the routine monitoring and reporting mechanism.

¹⁴ http://www.mohrss.gov.cn/xxgk2020/fdzdgknr/zcfg/fl/202011/t20201102_394625.html

4 Procedures for Screening, Assessment and Management

4.1 Overview procedures:

4.1.1 Pre-screening / spelt conditions for validity of proposals

The preparation of production and business plans will integrate climate, environment and social risks and measures and therefore ensures an overall framework for investments and infrastructure specifications and requirements.

- **Such plan development shall closely involve beneficiary and village committee** and seek prior and informed consent, therefore providing an entry point to update and re-evaluate social risks and proposed measures.
- **Such plan shall include climate and environmental assessment.** For instance, this may include local agro-ecological and climate analysis to support adapted geo-spatial planning and zoning in collaboration with communities in order to have tailored advisory. This shall include the review of the impacts of climate change on water supply, water demand, frequency and intensity of floods and droughts. Based on such assessment, appropriate adaptation and mitigation options will be integrated into system design and operation, including the use of adaptive technology models and engineering, and the application of energy-efficient technologies and equipment to support effective water resources management.
- **Exclude any investments of IFAD exclusion list** (see annex 5, SECAP volume 1 and attached as annex) while ensuring alignment to ESMP key criteria
- **Avoid IFAD substantial risk categories:** Specifically, 1) interventions will not take place in ecological red zones and protected areas; 2) the following interventions will be excluded i) large-scale dam/reservoir construction, such as dam height of more than 15 meters and reservoir capacity of more than 3 million cubic meters; (ii) use of ground water , ensure limited extraction of surface water and no drainage or regulation of natural water bodies (e.g. river regulation);; (iii) Restoration or development of large-scale irrigation schemes with an irrigated area of more than 100 hectares; (iii) construction of rural roads that entail the total area being cleared above 10 km long, or any farmer with more than 10 % of his/her private land taken;
- **Carry out due diligence with proposed partner enterprise which may be directly benefiting from the project. Ensure due diligence assessment to ensure that companies have required environmental and social management system** (ESMS) in line with China recently updated framework for disclosure of environment and social governance system for companies, providing standards for them to report and disclose environment and social elements and get them certified externally.

4.1.2 PRC's environmental screening and impact assessment and categorization

The project infrastructures activities will then be subjected to government screening, planning and management process with requires the 3 simultaneous, meaning that safeguards are always conducted and implemented together with the project. Indeed, Article 16 of the Law on EIA (2003, amended in 2018) requires classification of environmental assessment for construction projects according to the potential environmental impacts that will be caused. The MEE Directory on EIA Categories of Construction Projects (2021) classifies environmental impact assessments for construction projects into 3 categories with different due diligence and reporting requirements. :

- An Environmental Impact Statement (EIS) is required for construction projects with potentially significant environmental impacts (category A).
- A tabular environment impact report (EIT) is required for construction projects with less significant environmental impacts (category B).
- An Environmental Impact Registration Form (EIRF) is required for construction projects with the least significant environmental impacts (category C).

The key elements for determining "significant environmental impacts" are whether the construction project (i) is deemed to be an environmentally critical project; (ii) is above certain scale or size thresholds; or (iii) is located in or near environmental sensitive areas. The environmental sensitive areas are defined as following:

- Nature reserves, scenic areas, world cultural and natural heritage sites, drinking water source protection areas;
- Basic farmland reserves, basic prairie, forest park, geological park, critical wetlands, natural forest, natural habitats for endangered wild flora and fauna, natural spawning grounds, feeding grounds, wintering grounds and migratory channel for key aquatic organisms, natural fishery yards, water scarcity area, critical soil erosion prevention area, protected deserts, enclosed and semi-enclosed seas, eutrophication waters.
- Areas for living, medical care, education, administrative office and scientific research; cultural relics; reserves with special historical, cultural, scientific and national significance.

Depending on the screening, the unit submitting the project shall conduct different types of environmental and social impact assessment

- The MEE Directory on EIA Categories of Construction Projects (2021) classifies environmental impact assessments for construction projects into 3 categories with different due diligence and reporting requirements. It provides detailed EIA requirements for 55 sectors and 173 subsectors based on the project's size, type, and site environmental sensitivity. The MEE Directory on EIA Categories of Construction Projects (2021) classifies environmental impact assessments for construction projects into 3 categories with different due diligence and reporting requirements. It provides detailed EIA requirements for 55 sectors and 173 subsectors based on the project's size, type, and site environmental sensitivity.
- For instance, the water and soil conservation laws provides detailed threshold on size of infrastructure requiring no assessment, environmental impact form or environmental impact report or full study. for infrastructure, a Project Environmental Impact Report Form (before the factory building, which is conducted by the third party. The Form specifies in detail the environmental risks and mitigation measures for the terrestrial ecosystem, surface and groundwater environment, acoustic environment, atmospheric environment, solid waste, and other aspects during the construction process of the factory building.
- The content and format of an EIS, EIT and EIRF were explicitly regulated in the EIA law and regulations. In order to optimize and standardize the preparation of environmental impact report forms, the MEE divides the report forms into pollution impact categories and ecological impact categories according to the environmental impact characteristics of construction projects, and has formulated the Technical Guidelines for Compilation of Construction Project EIT (Pollution Impact Category) (Trial)" and "Technical Guidelines for Compilation of EIT for Construction Projects (Ecological Impact) (Trial)".
- For projects with low to minimal impacts that require an EIRF, MEE issued the Administration Measures on the Registration Environmental Impact Registration Form for Construction Project (came into effective since 1st January 2017) providing a template registration form to be submitted by the project proponent, and to be registered at the local ecology and environment authorities through an online system (<https://beian.china-eia.com>).
- Information disclosure is also conducted through the online system (<https://beian.china-eia.com/f/announcement/announcementShow>). The online system is managed and operated by MEE.

Preparation of domestic EIA. The EIS and EIT should be prepared by 3rd party certificated EIA institute in PRC. The cost for EIA preparation will be mainly paid by the project owner. The EIRF can be prepared by the project owner or 3rd party EIA institute engaged by the project owner.

Domestic EIA categorization of the subprojects. Based on information from the design institute and CPMO, the preliminary domestic EIA categorizations of the subprojects will be category B and C. All the subprojects are not likely to be category A because all the subprojects will not be located within any protected areas or ecological red line.

- For the subprojects involving construction of workshop and equipment installation, the subprojects will be category C;
- For the subprojects involving construction of industrial park, the subprojects will be category B;
- For the subprojects involving construction of production base and roads, the subprojects will be category B;
- For the subprojects involving construction of roads, no domestic EIA is required due to the capacity of the road.

Outline of the EIT for category B is presented in annex 3.

Building on such assessment, CPMO will review and update/adapt ESCMP for each specific sub-project, conducting the following tasks with the assistance from the consultants hired by CPMO:

- Identify when specific subprojects require dedicated ESCMP - EIA according to China / IFAD regulations based on the project design and FSR
- Describe how mitigation will be planned and implemented based on the project design and FSR
- Identify when mitigation should take place, and who reviews and approves the plans
- Identify for the specific ESCMP of subproject, two-to-three safeguard performance indicators
- Assist the CPMO to implement the ESCMP and preparation of reports
- Determine who is financing/implementing the safeguard provisions of the specific subproject
- Determine timing and cost of these procedures for the subproject
- Update draft ECSMP matrix accordingly

4.1.3 Consultation, reviewing and approval

Public consultation and disclosure requirements.

- The *Law on EIA* (article 21) and the *Guideline on Public Participation in EIA* (2018) stipulate the information disclosure and public participation requirements during environment impact assessment. Except for construction projects designated as confidential, the construction unit for projects or programs requiring an EIS (i.e., highest risk category) is required to hold expert meetings and public hearings; or through other means to solicit comments and suggestions from relevant units, experts, and the public before submitting the EIS for approval. The *Technical Guideline on EIA: General Program* (HJ/T 2.1- 2016) moreover require ongoing stakeholder consultation throughout the EIA process (including screening, scoping and assessment process), and determines that stakeholders representing enterprises, social groups, nongovernment organizations, residents, experts, and members of the public that may be affected directly or indirectly by the project shall be consulted. The Guideline defines suitable consultation methods including questionnaire surveys, interviews, forums, panel meetings, public hearings, and/or other measures. Public consultation is not required for projects requiring an EIT or an EIRF.
- **Information disclosure requirements.** The *Guideline on Public Participation in EIA* (2018) requires the construction unit or the contracted EIA institute and the relevant EEB disclose EIA information in a manner accessible to the public. EITs are disclosed on the relevant EEB website for a period of 10 working days. EIRFs are disclosed on the EEB websites immediately after its registration and will be

displayed continuously. However, there are no requirements for disclosure of monitoring reports during construction.

Review and approval process. The draft EIA document (EIS or EIT) must be submitted to the competent ecological and environmental administration (EED or EEB) by the construction unit prior to construction. If the construction unit is under the authority of a provincial or municipal department, the EIS or EIT must be pre-reviewed by that department before the document is submitted to the relevant ecological and environmental protection administration (EED or EEB) for review and approval. The relevant ecological and environmental protection administration approves the EIA document, and provides written notification to the construction unit within 60 days after receiving a draft EIS, within 30 days after receiving an EIT. For an EIRF, the registration process is completed after the registration form is submitted online. There is no approval process for EIRF. Construction work cannot start until the EIA document is reviewed and approved by the relevant environmental protection administration.

Design and approval of final project

- **Design of infrastructure needs to follow up government standards** which includes measures for social and environmental safeguards; for instance, road constructions standards provides a framework to reduce the impact on the ecological environment, save land resources, avoid bad geological areas, avoid high filling and deep digging, prevent soil erosion, minimize foot print on arable land and nature, and protect the environment. It encourages repairing old road before constructing new ones and promotes the use of green materials and processes, build ecological canal systems, buffer zones, etc., to reduce adverse impacts on the environment. Also, it promotes associating roads and water infrastructure to minimize footprint
- **Evaluation and Approval of project** is carried by different entities depending on size and risks associated to the project. Provincial EEBs have EIA and Pollution Control Division (4-5 staff members) responsible for approval of larger scale or more sensitive EIAs for government programs, strategies, and projects. Municipal EEBs also have divisions of EIA approval (4-5 staff members) that are responsible for approving EIAs. County EEBs are branches of municipal EEBs and have divisions of EIA approval (2-5 staff members). They are responsible for approving EIA forms for projects that are approved by county/city governments.

4.1.4 Environmental management during construction and operation

- **Bidding and procurement** will include criteria related to ESCMP / environmental and social management (see SECAP procurement plans) and shall ensure that qualified / certified enterprises are selected with capacities to implement safeguards; due diligence is to be conducted with partner enterprise benefiting from investments and which shall disclose their ESG
- **Contracting:** Township governments working with the County PMO will manage the contracting process which shall include provisions for safeguards. In addition to the constructing company, a supervision company will be contracted to oversee the works and its acceptance. A warranty is included in the construction contract, which makes the constructing company responsible for fixing any failures in the works, including the failure to apply proper soil erosion control and drainage measures, within the 1st year after the end of the project.
- **During the construction of the project,** the construction unit has the obligation to simultaneously implement the environmental protection countermeasures defined in the EIS/EIT/EIRF or otherwise required in the approval for the EIA documents (EIA Law, article 26). In case of any inconsistency with EIA documents during project construction and operation, the construction unit is to organize a post-assessment of the environmental impacts, adopt appropriate mitigation

measures, and report to the department approving the original EIA documentation (EIA Law, article 27). That department may also request the construction unit to perform a post-assessment of the environmental impacts and to adopt appropriate mitigation measures (EIA Law, article 28). In addition to the *EIA Law*, the *Construction Law of PRC* (2011) requires contractors of civil works to adopt measures to control pollution resulting from dust, waste gas, wastewater and solid waste materials, noise, and vibration at construction sites.

- **Quality construction:** County Forestry Bureaus should work closely with Water Bureaus, Transportation Bureaus, Power Bureaus, and Environmental Protection Bureaus to ensure that construction programs are in line with government strategies and policies. Qualified experts should be selected to provide technical assistance and training to the project.
- **Quality operation and maintenance:** Prior to the commencement of each infrastructure project, a corresponding infrastructure management body should be identified/established to fully participate in the whole process of system planning, design and construction supervision, and assume the responsibility for operation and maintenance after the completion of the project in accordance with government safeguards

4.1.5 Gap between IFAD Requirements and Domestic Environmental Laws and Regulation

Above analysis shows that in general China has established an integrated regulatory and law framework for mitigating and avoiding the environmental impacts caused by large public infrastructure projects. Most of the laws and regulations are formulated for safeguarding the environmental impacts. However, a comprehensive comparison between IFAD' requirements and Chinese domestic laws and regulations is still necessary. Table summarizes the major gaps and actions to fill out the gaps to be undertaken during the project implementation.

Table 1 Gaps analysis and actions

Aspect	IFAD	National regulations	Comparison
Environmental policy and regulations	There are IFAD Social, Environmental and Climate Assessment Procedures Environmental, Social and Climate Management Framework, and Environmental and Social Standards	Environmental impact assessment and permitting procedure in PRC are described in section 4.1.2, 4.1.3 and 4.1.4.	In most of the cases national requirements are matching with IFAD's Policy and Standards (For example, EIA is compulsory for both requirements). However, there are some parameters when national and IFAD requirements and standards are different (For example, National legislation does not require a preparation of separate environmental, social and climate management plan (ESCMP) or any other environmental documents/plans/checklists for project). In such cases more stringent provisions will apply for the project. IFAD's requirements will apply for the project. An ESCMP will be prepared.
Screening and categorization	IFAD carries out project screening and categorization at the earliest stage of project preparation when sufficient information is available for this purpose. Environmental and social risk can be categorized as High, Substantial, Moderate or Low. In the case where IFAD and national categorization requirements differ, the more stringent requirement will apply. This refers mostly in the case of deciding about Category Moderate or Low subprojects - the national EIA legislation doesn't refer to small scale activities, including construction and rehabilitation of various workshops. In these cases, the client will apply the IFAD criteria.	Under MEE decree, Directory for the Management of Construction Project Environmental Impact Assessment Categorization (MEP Decree 2017-44, revised in 2021) provides detailed EIA requirements for 55 sectors and 173 subsectors and classifies EIAs for construction projects into three categories with different reporting requirements based on the "significance" of potential environmental impact due to the project and the environmental sensitivity of the project site as described in the directory. The directory provides detailed EIA requirements for 55 sectors and 173 subsectors:	For the subprojects, SECAP screening tool) will be used for categorization. Under PRC EIA regulations, the subprojects are as Categorize B and C, and preparation of one Environmental Impact Tabular Report (EIT) or EIRF is required. For the non-structural component, no DEIA was required). The domestic EIA will be prepared in accordance with IFAD and PRC's requirements. Besides, an ESCMP will be prepared in accordance with IFAD and PRC's requirements.

Environmental impact assessment	For moderate risk project, environmental, social and climate management plan (ESCMP) is required	Preparation of ESCMP is not required in PRC.	An ESCMP will be prepared in accordance with IFAD and PRC's requirements.
Public consultations	Consultations with target groups, communities and other stakeholders likely to engage with IFAD's operations are sought throughout the project life cycle	Conducting of public consultation is not mandatory for category B projects.	Public consultations will be carried out with the stakeholders, affected people as part of the SEP, in line with the IFAD requirements. The feedback received from the Public Consultations will be recorded and used to inform and influence project activities.
Requirements on cultural heritages	IFAD ESS 3 requires development of Cultural Recourses field-based survey to conserve cultural resources and avoid destroying or damaging them under the Project	Destruction of PCRs is not allowed per PRC regulations.	During the domestic EIA preparation period, existing cultural heritages will be avoided. To protect cultural heritages found during construction, chance Find procedures will be included in the ESCMP.
Grievance redress	IFAD requires that all borrowers/recipients/partners adopt an easily accessible grievance mechanism at project-level in order to receive and resolve concerns and complaints of people who may be adversely affected or potentially harmed by IFAD-supported projects that fail to meet the SECAP Standards and related policies	In the PRC, grievances are addressed through the environmental complaints hotline operated by environment protection authorities (e.g. 12369 hotline, 12369 WeChat platform and www.12369.gov.cn). However, a formal grievance redress mechanism (GRM) is not required.	A GRM will be established and included in the ESCMP. (see annex)
Information disclosure	The sharing of draft and final ESIA's and other relevant documents with project stakeholders and interested parties is required.	PRC requires domestic EIA to be disclosed on the relevant local Ecology and Environment Bureau's websites.	The ESCMP will be required to disclose to the public, affected persons, stakeholders and interested parties

4.1.6 Differences between PRC's environmental categorization system and IFAD's categorization system.

For IFAD project, environmental and social risk can be categorized as high, substantial, moderate or low. Risk categories are determined by: the nature and sensitivity of the project area; the significance and magnitude of potential impacts; and the cumulative and induced impacts.

- For high risk project, environmental, social and climate management framework/plan or environmental and social impact assessment (ESIA) is required;
- For substantial risk project, abbreviated environmental, social and climate management framework/plan or abbreviated ESIA is required;
- For moderate risk project, environmental, social and climate management plan (ESCMP) is required; and
- For low risk project, no social and environmental assessment required.

For environmental safeguard, EIS report is generally equivalent to IFAD's ESIA or abbreviated EISA for high and substantial project separately; EIT report is generally equivalent to IFAD's environmental, social and climate management for moderate project; and the EIRF is similar to IFAD's low risk project.

The PRC categorization system is clearly defined and has set quantitative criteria therefore it is easy to practice and implement. IFAD categorization is evaluated on more of a case by case utilizing ORMS screening tool, which requires special expertise.

For this project, the social and environmental risk category is rated as moderate. Based on MEE's Directory on EIA Categories of Construction Projects (2021), most of the domestic EIA for the project will be category B and C, requiring preparation of EITs and EIRFs which are generally equivalent to environmental safeguard requirements of IFAD's environmental, social and climate management.

4.1.7 PRC's social impact assessment and management

The social risk screening and categorization:

- The state laws and regulations on project screening include the Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects (2008.11.29), Cultural Relics Protection Law (2017 Amendment), Land Administration Law (2020.1.1), Regulations on the Prevention and Control of Geologic Disasters (2004.3.1), and Notice of the National Development and Reform Commission on Issuing the Interim Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects (NDRCI 2012), and Opinions on Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances (GOSC, 2020.2.22).
- The NDRCI 2012 requires SSRA for fixed asset investment projects constructed and implemented within the territory of PRC examined and approved by the NDRC or submitted to the State Council for examination and approval, classified the project's social stability risk into three levels through a social stability risk assessment, which included consulting with the relevant public, identify potential risks and their possibility and scales, and propose prevention and mitigation measures. The three levels included: 1) high risk, most people have strong opinions and reactions to the project; 2) some people have strong opinions and reactions to the project, which may lead to contradictions and conflicts; 3) only a small number of people have objections which could be prevented and resolved through mitigation measures. The rating of social stability risks according to the results of social stability risks assessment can be regarded as the classification of social impacts in PRC.
- Article 11 of the Green Credit Guidelines (GCGs) issued by the China Banking Regulatory Commission (CBRC) ¹⁵, banking financial institutions shall formulate

¹⁵ Notice of China Banking Regulatory Commission (CBRC) on Printing and Distributing Green Credit Guidelines (CBRC[2012] No.4).

environmental and social risk assessment standards for customers and dynamically assess and classify customers' environmental and social risks. A key evaluation indicators of green credit implementation was formulated by CBRC which categories customers of different sectors into category A, B and C, from most significant adverse environmental or social risks or impacts to the minimal or no adverse risk.

- According to the interview and field visit during DRM, the screening process of environmental and social impacts and risks and public consultation were basically conducted in the project preparation stage by PIU and CPMO, related land use permits and EIA approvals have been submitted to the PPMO for the preparation of project feasibility study. Some of the PIU has already signed lease contracts and obtained land for the plantation bases. Most of the potential project sites are located in existed plantation bases and industrial parks, may not involve the impact of land acquisition and resettlement. Therefore, the social impact categorization can be considered low.

The social risk assessment and management

- Projects screened as having potential significant social risks are required to undertake a Social Stability Risk Assessment (SSRA). The social stability risk assessment (SSRA) was initially required to be carried out for fixed asset investment projects examined and approved by national level authorities and before the city or county people's government makes the decision of house demolition since about 10 years before. NDRCI 2012 stipulates that for any major fixed asset investment project in China, the owner shall conduct an SSRA at the preparatory stage to identify risks and degree of impact, solicit opinions from the affected people, propose measures to prevent and mitigate risks, and determine the recommended social stability risk rating after such measures are taken.
- Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) (CPCCCO [2012] No.2) also stipulates that an SSRA shall be conducted for any decision-making on major project or matter that concerns the immediate interests of the public, and is likely to cause social stability risks, such as LA and HD, farmers' burden, state-owned enterprise restructuring, environmental impacts, social security, and public welfare. In Feb 2020, the Opinions on Strengthening Social Stability Risk Assessment for Major Decisions under New Circumstances promulgated by the General Office of the CPC Central Committee and the General Office of the State Council stated that an SSRA shall be carried out on major decisions including those on major construction projects. It specifies the contents, methods, procedures, and management of SSRA, and application of SSRA results, and underlines that the contents of SSRA are integral to the project's feasibility study and application reports.
- The Land Administration Law: Article 47: For expropriation of land by the state, the local governments at and above the county level shall make an announcement and organize implementation after approval according to the legal procedures. If a government at or above the county level is to apply for land acquisition, it shall conduct the current status survey and SSRA, and disclose the range and purpose of acquisition, current status, compensation rate, resettlement mode, social security, etc. in the township, village and village group affected for at least 30 days to collect comments from the rural collective economic organization and its members, village committee and other stakeholders affected.
- It is material consistency with IFAD's requirements which includes social and environmental risk identification, general description of land acquisition and resettlement impacts, process of public consultations and information disclosure, mitigation measures and social stability categorization, and emergency plan for social stability risk emergencies. The PRC's SIA system applicable to the project is adequate and consistent with SECAP's requirement for social impact assessment. However, they often lack a monitoring and review of the program implementation's

effectiveness. These omissions or weaknesses create discrepancies with the requirements of IFAD's SECAP.

The labour risk management in China

- The project screening concluded that in most cases, the subprojects in both project enterprises will involve direct workers, primary supply workers, and contracted workers. The value chains subproject will be located in the rural areas with some maybe in remote area, the local communities would contribute most of the temporary workforces for the production bases. This was confirmed in an interview with an oil tea company, where it was found that over 80% of the employees come from the local area, with women making up more than 60% of this workforce.
- China has a relatively comprehensive framework requiring sound and fair treatment of all types of workers, increasing enhancement of occupational health and safety, prevention of child labor use and forced labor etc., which are generally in alignment with the requirements of SECAP Standard 5. Furthermore, institutions from county level to the national level have been established to manage labor and social enforcement and ensure and supervise their enforcement. It is recognized that the labor supervision by different level of authorities (e.g. labor bureaus, work safety bureaus, etc.) are increasingly strengthened. Following the legal requirements, it is mandatory for enterprises to develop and implement labor management policies, sign formal labor contracts, put in place grievance redress mechanisms (supported by the government- managed arbitration and judicial systems), as well as design, install and operate OHS related facilities and measures to protect the benefits and health and safety of workers. The management plan with mitigation measures for OHS are included in EIA.
- These are highly regulated in the project counties and there is limited likelihood of violation or deviation. The field mission could see that Potential operational hazards and avoidance measures were marked in the factories visited during the mission. The virtual interview with one of the PIU in Pingjiang County, named Hunan Shanrun Oil Tea Technology Development Co.Ltd also obtained key international certifications related with E&S and in their sector, such as ISO 45001.
- Contractor normally develops a series of management plans and procedures for various aspects of the construction projects, covering quality, environment, safety management, as well as construction site/campsite management, worker management etc.

4.1.8 Gap between IFAD Requirements and PRC Laws and Regulation on Social Safeguard

Overall, IFAD's SECAP underscores the importance of managing environmental and social performance throughout the life of a project, emphasizing integrated project environmental and social impact assessment, stakeholder engagement, communications and grievance mechanism establishment and operation, monitoring and reviewing, sustainable development of the affected communities, including disadvantaged or vulnerable groups. Both domestic EIA and SIA require the risk or impacts identification, project management programs prepared based on consultation with stakeholders and mandatory information disclosure to public during project preparation, however, the scope of social assessment, documentation of consultations, identification of vulnerable groups and specific project measures, as well as monitoring and review of program implementation effect are missing or weak, which had gaps with requirements of SECAP. Please find the gap analysis table below:

For climate management, there is no requirements in PRC. To fill the gap, climate change will be included in the ESCMP.

SECAP social standards	IFAD social safeguard requirement	China's social safeguard management requirements and local practices	Consistency, gaps and recommendations
Standard 3: Cultural heritage	Screening and assessment. Meaningful consultation leading to consent. Confidentiality and restricted access by communities. Chance finds. Continued access. Legally protected cultural heritage areas.	Cultural Relics Protection Law: Article 17: No construction works or operations such as blasting, drilling and digging are allowed within the area of a protected cultural relic. If such works or operations are unavoidable, measures must be taken to ensure the safety of the protected cultural relic, and such works or operations shall be subject to the approval by the government approving and announcing its status as a protected cultural relic. Article 20: The site selected for a construction project shall keep away from immovable cultural relics as far as possible. If the impact on a protected culture relic can't be avoided for special circumstances, the original site shall be protected by whatever possible means. Article 29: Before launching a large-scale capital construction project, the construction contractor shall firstly apply to the cultural relic authority of concerned province, autonomous region and municipality for an archaeological investigation at places where cultural relics may be buried underground within the project area. Article 31: The expenses needed for archaeological investigation, prospecting, or excavation, which have to be carried out because of capital construction or construction for productive purposes, shall be included in the budget of the construction contractor for the construction project. Regulations for the Implementation of the Cultural Relics Protection Law: Article 25: The scope and rates of funds for archaeological investigation, exploration and excavation shall be in line with applicable Chinese regulations.	Consistent.
Standard 4: Indigenous people	Meaningful consultations and FPIC. Land tenure. Involuntary resettlement. Adverse impacts on Affected Communities of Indigenous Peoples should be avoided where possible. If unavoidable, the client should prepare Indigenous Peoples Plan, or a broader community development plan with separate components for Indigenous Peoples.	i) Constitution: Article 4: All ethnic groups in the People's Republic of China are equal. ii) Law of the People's Republic of China on Regional National Autonomy: Article 51: In dealing with special issues concerning the various nationalities within its area, the organ of self-government of a national autonomous area must conduct full consultation with their representatives and respect their opinions. Article 52: The organ of self-government of a national autonomous area shall guarantee that citizens of the various nationalities in the area enjoy the rights of citizens as prescribed in the Constitution. iii) Social Stability Risk Assessment of Major Fixed Asset Investment Projects: Article 3: At the feasibility study stage of a project, the PIU (or through a specialized agency) shall conduct an SSRA to identify impacts, propose mitigation measures, and prepare an SSRA report. On the other hand, if a government at or above the county level applies for land acquisition, a current status survey and an SSRA should be conducted for the land to be expropriated. The SSRA report shall be reviewed by experts organized by the designated authority of the county government before being approved. Local governments have issued opinions/notices on the implementation of SSRA, such as the Opinions on the Implementation of Measures to Strengthen Social Stability Risk Assessment Mechanism for Major Decisions under New Circumstances of Hubei Provincial Committee of the CPC and the General Office of Hubei Provincial Government (2021.12.13) and Implementation Opinions on Strengthening the Risk Assessment of Social Stability of Major Decisions under New Circumstances (XBF [2021] No. 27). iv) Land Administration Law (2020): Article 47: For expropriation of land by the state, the local governments at and above the county level shall make an	Largely consistent. Gap existed in documental requirements. No requirement for preparation of a separated IPP and related documents.

		<p>announcement and organize implementation after approval according to the legal procedures. If a government at or above the county level is to apply for land acquisition, it shall conduct the current status survey and SSRA , and disclose the range and purpose of acquisition, current status, compensation rate, resettlement mode, social security, etc. in the township, village and village group affected for at least 30 days to collect comments from the rural collective economic organization and its members, village committee and other stakeholders affected.</p>	
	<p>Culturally appropriate benefits.</p>	<p>i) Law of the People’s Republic of China on Regional National Autonomy: Article 65: While exploiting resources and carrying out construction in national autonomous areas, the state shall give consideration to the interests of these areas, make arrangements favorable to local economic development and pay proper attention to the productive pursuits and the life of local minority nationalities. Article 66: State organs at higher levels shall incorporate major projects for maintaining ecological balance and achieving comprehensive environmental protection in national autonomous areas into national economic and social development plans. ii) Interim Regulations on Major Administrative Decision-making Procedures (2019.9.1): Prior public consultation shall be conducted for decision makings in relation to the development of important plans for economic and social development and other aspects, the development of major public policies and measures to develop, utilize and protect important natural and cultural resources, the implementation of major public construction projects in the administrative region, and other major matters that have a significant impact on economic and social development, involve material public interests, or the immediate interests of the public. Article 14: The decision-making entity shall fully solicit opinions in the form widely available for public participation. Opinions may be solicited in such forms as symposiums, hearings, field visits, written solicitation of opinions from the public, questionnaires, and opinion polls, etc. Article 15: If public opinions are solicited for a matter subject to decision-making, the decision-making entity shall disclose the draft decision and its explanation, and the mode and period of solicitation of public opinions by publicly available means, such as government website, new media, newspapers, radio and TV, etc. The period of solicitation of public opinions is usually not less than 30 days, and explanations shall be made when the solicitation of public opinions begins if such period is to be shortened due to emergencies. For matters of extensive public concern, or highly technical matters, the decision-making entity may make explanations by means of expert interview, etc. Article 16: If any matter subject to decision-making concerns immediate interests of citizens, legal persons or other organizations, or involves a major dispute, a public hearing may be held in accordance with any applicable laws, regulations and rules. The decision-making entity or the organizer of the public hearing shall disclose the draft decision and its explanation in advance, and make clear the time and venue of the public hearing. Article 29: If the public participation procedure is performed, the decision-making entity shall submit the draft decision together with main accepted public opinions to the decision-making authority for discussion. Article 30: When the draft decision is discussed, the meeting attendees shall give opinions adequately, and chief administrative officer shall give a final opinion. If such final opinion differs from the majority opinion, the reason shall be given at the meeting.</p>	<p>Consistent.</p>

		iv) The 14th Five-Year Plan of Hunan Province for Ethnic Affairs , putting forward six specific indicators and 42 key projects in social and economic development, people's livelihood improvement, ecological and civilization construction, rural revitalization, nation community consciousness and ethnic unity and development.	
Standard 5: Labor and working conditions	Worker occupational safety and health	<p>i) Labor Law: Article 53: Labor health and safety facilities shall comply with the national standards. Newly constructed, reconstructed or expanded labor health and safety facilities must be designed, constructed , and put into operation together with main parts of the project. Article 54: The employer must provide labor health and safety conditions, and necessary labor protection articles complying with the state provisions to workers, and workers dealing with operations with occupational hazards shall receive health checkup regularly. Article 57: The state shall establish a statistical reporting and handling system of accidents and occupational diseases. Article 61: Pregnant female workers shall not be arranged to deal with physical labor oof intensity level III stipulated by the state and prohibited labor, and female workers pregnant for seven months or more shall not work overtime or at night.</p> <p>ii) Work Safety Law: Article 21: The primary person in charge of a production and operation entity shall be responsible for establishing and improving its work safety responsibility system, developing policies, rules, and operating procedures for work safety, developing and implementing work safety education and training plans, supervising and inspecting work safety to eliminate hidden risks of work safety accidents in a timely manner, preparing and implementing emergency rescue plans for work safety accidents, and reporting work safety accidents in a timely and honest manner. Article 73: Departments in charge of supervision and control overwork safety shall set up a complaint system, such internet reporting platforms as the complaint telephone numbers, mailbox numbers ore-mail addresses known to the public, to facilitate receipt of complaints related to work safety. Article 74: All units and individuals shall have the right to report or complain about hidden dangers that may lead to accidents and practices violating work safety laws to the departments in charge of supervision and control over work safety. Article 75: When neighborhood committees or villagers committees discover hidden dangers that may lead to accidents or practices violating work safety laws in production and business units located in their areas, they shall report the matter to the local people's governments or the departments concerned.</p> <p>iii) Law on the Prevention and Control of Occupational Diseases (2018 Amendment): Article 4: Employees shall be entitled to occupational health protection according to law. Employers shall create work environment and conditions meeting the national occupational health standards and health requirements and take measures to ensure that employees receive occupational health protection. Trade unions shall oversee the prevention and control of occupational diseases and protect the lawful rights and interests of employees according to law. When formulating or amending rules and regulations on the prevention and control of occupational diseases, employers shall solicit the opinions of trade unions. Article 5: Employers shall establish and improve a responsibility system for the prevention and control of occupational diseases, strengthen the management of prevention and control of occupational diseases, improve their capabilities of prevention and control of occupational diseases, and assume responsibilities for their own occupational</p>	A whole set of regulations on worker's health and safety has been established in China, and Hunan to fully protect worker rights. The regulations also require that appropriate safety measures, inspections or remedial works should be taken during design, construction and operation to ensure community, individual and worker safety. The regulations on public and labor safety are basically consistent with ESCAP Standard 5.

		<p>hazards. Article 6: The primary person in charge of an employer shall assume the overall responsibility for the employer's prevention and control of occupational diseases. Article 7: Employers must make work-related injury insurance available for its employees according to law. Article 9: An occupational health supervision system shall be implemented in China. Article 10: The State Council and the local governments at and above the county level shall prepare plans on the prevention and control of occupational diseases, which shall be included in the national economic and social development plan and organize the implementation of such plans.</p>	
	<p>Labour Management Procedures set out the way in which labour issues will be managed in accordance with the requirements of national law, collective agreements and SECAP Standard 5. They facilitate project planning and help to identify necessary resources to address any labour issues associated with the project. The Labour Management Procedures need to be appropriate to the size, locations and workforce of project activities.</p>	<p>China has developed a detailed system to ensure fair treatment and safety for workers, complying with international standards. This system includes strict rules against child and forced labor and requires businesses to have clear labor management policies, formal labor contracts, and systems to address worker complaints. This structure is supported by government-run arbitration and judicial systems, and businesses must also have safety measures in place to protect workers' health.</p> <p>At the county to national level, there are institutions dedicated to overseeing labor laws and ensuring they are enforced, with labor and safety bureaus seeing their roles strengthened over time. For the surveyed project enterprises during DRM, no labor risks were found for its workers. For certain subprojects, like value chains, will use local labor for planting and on site rough machining, offering them rent for land use and wages for work. However, due to low income and high workloads, younger people tend to seek work elsewhere, leaving older individuals (ages 40 to 60) to take these jobs, often working in pairs for mutual support.</p> <p>It is reported that there a nondiscrimination on labors and equal opportunities will provided to labors once they are proved to be healthy and meet the requirements of position. The social screening concluded the risk of child labor or forced labor is minimum, whilst the labor risks with juvenile workers (16- 18 years) would exist in the workshops of some participating enterprises. Key labor related risks The potential occupational health and safety (OHS) risks in the agro-forestry sector (plantation and processing) include exposure to hazardous substances such as pesticides and fertilizers, which can lead to poisoning or long-term health issues if proper protective equipment is not used. Workers may also face risks related to the use of machinery and equipment, leading to injuries from cuts, amputations, or being struck by objects. The physical demands of forestry work, including manual lifting and carrying, can cause musculoskeletal injuries. Additionally, working outdoors exposes workers to adverse weather conditions, increasing the risk of heat stress or hypothermia. The risk of encounters with wildlife and insects, leading to bites or stings, and the potential for falls from heights when climbing trees or working on uneven terrain are other significant concerns. In addition, psychosocial hazards, including violence and harassment, may also be a risk to worker health, especially female workers.</p>	<p>Largely consistent. Gap existed in the labor management procedure of project enterprises. A template for subproject labor management procedure that is detailed in Annex ?? is developed to guide subproject enterprise to categorize the workers, screen labor risks and set out labor management plan when subproject activities are known.</p>
Standard 6: Community health and safety	Health and safety risk management.	The same as requirement "Worker occupational safety and health" of Standard 5 above.	consistent
	Community exposure.	Article 26 of Environmental Protection Law of the People's Republic of China (2014): Requires that construction projects undergo environmental impact assessments to prevent environmental pollution and ecological damage, indirectly addressing community exposure to hazards. Article 58: Stipulates measures	consistent

		<p>against pollution and public nuisances, aiming to protect communities from exposure to harmful substances.</p> <p>Article 38 of Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste (2020 Amendment), focuses on the prevention and control of pollution from hazardous waste, including measures to prevent leakage, scattering, and illegal dumping, directly addressing community exposure risks.</p> <p>Article 64: Emphasizes the importance of public participation in environmental monitoring and reporting violations, indirectly supporting community protection from exposure.</p>	
	Infrastructure design and safety	<p>Chinese Regulations establish mandatory safety standards and practices for infrastructure projects, focusing on compliance with national and industry-specific safety standards, quality management, and the operational safety of construction projects.</p> <p>Article 17 of Construction Law of the People's Republic of China: Requires that construction projects must comply with national and industry standards for engineering quality, which includes safety considerations.</p> <p>Article 51: Stipulates that construction units must implement national and industry standards for construction safety, emphasizing the importance of safety in project design and execution.</p> <p>Regulations on the Supervision and Administration of Construction Project Quality (2017): Article 9: Highlights the responsibility of project owners to ensure the quality and safety of construction projects, including compliance with relevant standards and regulations.</p> <p>Article 21: Requires the formulation and implementation of quality and safety management measures throughout the construction process.</p>	consistent
	Emergency preparedness.	<p>The Law on Emergency Response (Order of the President [2007] No. 69) was formulated in order to prevent and reduce the occurrence of emergencies, control, mitigate and eliminate serious social hazards caused by emergencies, standardize emergency response activities, protect the safety of people's lives and property, and maintain national security, public security, environmental security and social order.</p> <p>Article 17 of Law on Emergency Response requires local government establish and maintain an emergency preparedness and response system.</p> <p>Article 47 of the new Environmental Protection Law (2015) requires enterprises and institutions to formulate emergency plans for environmental emergencies and report them to the competent department of environmental protection and relevant departments for the record.</p> <p>The regulation for Emergency Plans for Environmental Emergencies issued by Ministry of Environmental Protection (current name is Ministry of Ecological Environmental) in 2015 stipulates the requirements for the engagement of potential affected communities during emergency plans preparation and implementation and information disclosure.</p> <p>The emergency plan as a measure to manage social stability risk in the project life cycle is also required to be prepared by project proponent and included in the social stability risk assessment (SSRA), and the results of SSRA should also be included in the emergency preparedness and response system established by local government establish and maintain.</p>	consistent
	Gender-based violence including sexual exploitation and abuse	<p>China has a legal framework aimed at preventing violence against women, protecting children from abuse, and addressing sexual harassment.</p> <p>Anti-Domestic Violence Law of the People's Republic of China (2016) is to prevent and respond to domestic</p>	consistent

		<p>violence, protect the rights and interests of victims, and promote family harmony and social stability.</p> <p>Articles 236-237 of Criminal Law of the People's Republic of China address the crimes of rape and sexual assault, prescribing penalties for such acts. Article 244 penalizes forced prostitution and the exploitation of women.</p> <p>Article 1010 of the Civil Code explicitly addresses sexual harassment. The provision states:</p> <p>Employers must take reasonable measures to prevent, stop, and handle complaints about sexual harassment occurring in the workplace. This includes creating a safe working environment and establishing mechanisms for complaints and resolution.</p> <p>This article places a legal obligation on employers to actively combat sexual harassment at work, providing a clear legal basis for victims to seek recourse. It reflects an understanding of the importance of creating mechanisms within organizations to prevent and respond to sexual harassment, thereby protecting employees' rights and maintaining a respectful and safe work environment.</p>	
Standard 7: Physical and economic resettlement	Avoidance and minimization of displacement.	<p>i) Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects: The area and type of the land used for the project shall be identified before the feasibility study report or project proposal is reviewed to avoid the acquisition of basic farmland, and nature reserves, etc.</p> <p>ii) Guidelines on Establishing a Sound Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim) (CPCCCO [2012] No.2): An SSRA shall be conducted for any project involving LA and HD, farmers' burden or social security.</p> <p>iii) Guidelines on Establishing a Social Stability Risk Assessment Mechanism for Major Decisions and Matters (Interim):</p> <p>If the assessment report thinks that a high risk is present, a decision of non-implementation shall be made, or a decision may be made after the plan is adjusted or the risk level is reduced; if a moderate risk is present, a decision of implementation shall be made after effective risk prevention and mitigation measures are taken; and if a low risk is present, a decision of implementation may be made, provided that actions like explanation and persuasion to the people affected are taken and reasonable requests of people affected are handled properly. For impact and risk management, the legitimacy, rationality, feasibility and controllability of measures shall be assessed.</p> <p>iv) Notice of MNR, MARA and NFGA on Issues concerning Strict Control of Cultivated Land Usage (MNRP [2021] No.166) , requiring that permanent basic farmland shall not be converted into forest land, grassland, garden land and other agricultural land or agricultural facilities construction land. The annual "balance in and out" shall be carried out for any conversion of cultivated land to other agricultural land and agricultural facilities construction land, and the same amount and quality of cultivated land shall be made up by means of the consolidation of forest land, grassland, garden land, other agricultural land and agricultural facilities construction land into cultivated land.</p> <p>v) Article 3 of Management Specification for Review and Approval of Forest Land Use in Construction Projects¹⁶</p>	Consistent.

¹⁶ [建设项目使用林地审核审批管理办法 国家林业和草原局 \(forestry.gov.cn\)](http://www.forestry.gov.cn)

	(GJLYJL No.42[2016]) stipulateds that Construction projects should not occupy or occupy less forest land. If forest land must be used, it should comply with the forest land protection and utilization plan, and use forest land reasonably, economically, and intensively. Restrict the use of forest land in ecologically important and ecologically fragile areas for construction projects, restrict the use of natural forests and high volume forest land per unit area, and restrict the use of forest land for commercial construction projects.	
Physical displacement. Economic Displacement (loss of land), Developing plans to enhance and restore livelihoods of affected persons.	<p>The New Land Administration Law (2020.1.1) (Article 48) placed much importance on livelihood sustainability post displacement. The newly adopted method of Block Comprehensive Land Price allows farmers to have a much higher price for land acquisition than before. The new law mandatorily requires that farmers affected by land acquisition shall be covered social pension, which can guarantee livelihood sustainability when they reach the retirement ages.</p> <p>State Council [2004] No. 28 states that (i) where the project concerned generates profits the people displaced can use the land as investment to have a right to share in those profits; (ii) within a planned urban area, improvement of employment system and social security to safeguard AP's lives. (iii) out of a planned urban area, land resettlement, employment resettlement, or displacement resettlement shall be implemented (4) carry out employment trainings.</p> <p>Ministry of Land and Resources [2004] 238 and the General Office of Shaanxi Provincial People's Government Transmitting the Notice of Shaanxi Provincial Human Resources and Social Security Department on Further Improving the Basic Endowment Insurance Policy (the Office of Shaanxi Gov. [2007]No.8) requires that (i) agricultural production resettlement, (ii) re-employment resettlement, (iii) using the land as share of the project, and (iv) provision of construction land for development.</p> <p>Notice for Further Enforcing the Social Insurance Policy for Land Acquisition Affected People of Shaanxi Province (Shaanrenshefa [2016] No. 20) requires that special fund for Primary Endowment Insurance should be paid before approval and implementation of land acquisition.</p>	Consistent.
Consideration of vulnerable groups.	<p>As per legal provisions, poor and vulnerable groups are defined as those (i) who fall within the five-guarantee households, and (ii) eligible for the Minimum Living Guarantee System.</p> <p>The local village/community committee, civil affairs bureau, social security bureau and other agencies pay attention to the needs of the poor and vulnerable groups: (i) Five-Guarantee Program, the elderly, weak, widowed and disabled members who are unable to work and have no means of living, or whose households lack labor a rural production cooperative would provide production and living assistance (e.g., food, clothing, fuel, education and burial expenses; (ii) those eligible for the Minimum Living Guarantee System are provided with living subsidy each month; and (iii) other assistance—urgent cash assistance if the households have serious illness in addition to the subsidy paid under rural cooperative medical care system; cash or in-kind assistance for the women headed households provided by the women's federation; priority given by</p>	<p>Identification of the poor and vulnerable groups at an early stage of land acquisition process so they can participate, and their concerns are considered during consultations and planning.</p> <p>Monitoring of the standards of living of the</p>

		the village committee to be included in the endowment insurance system for the farmers affected by land acquisition.	displaced poor and other vulnerable groups will be carried out.
	Resettlement action plan prepared when resettlement triggered.	Except for large-scale water sector projects, there are no specific requirements to prepare a resettlement plan which is similar to the resettlement action plan required by IFAD.	Documentation of the land acquisition process consistent with PRC requirements and the gap filling measures to bridge IFAD requirements will be prepared by implementing agency. Key information of the resettlement planning documents will be disclosed to the affected persons and other stakeholders
	Grievance and redress	As per law, a grievance redress mechanism is established at the local government where farmers can first raise their concern with the village collective or bring their grievances through the legal system directly. However, the documentation system is not adequate. In practice, grievances collected and addressed are not fully documented in some of villages and township governments.	The involved persons will be informed of the grievance redress mechanism established for the project during the consultation and disclosure process. It will be disclosed to the public at the early stage of the program. All grievances received including resolutions will be documented and available for monitoring.

4.2 Monitoring and evaluation

Key elements of the monitoring and evaluation system will be aligned to the logframe and will include specific responsibilities for monitoring targeted performance on

environment and climate (including carbon sequestration, adoptions of sustainable practices, training of groups on sustainable natural resource management etc.) and for beneficiary tracking, especially women, youth and vulnerable groups (e.g. persons with disabilities). To that end, all people-centred indicators will be disaggregated by sex and age. Outcome Indicators, including IE2.1, SF 2.1 and SF 2.2 for empowerment, CI 2.2.1 for youth, and Environmental Sustainability and Climate Change indicators (CI 3.2.2), will be tracked at baseline, mid-term, and end-line as part of the COI surveys.

Data monitoring for safeguards will be integrated in the general monitoring and evaluation system proposed by the project:

- **Grassroots level (VIG) data**, depending on the nature of indicators. In general, the state of benefits and participation at the levels of households and individual beneficiaries will be undertaken through the grassroots recording and reporting by VIGs and producer cooperatives.
- **Grievance mechanisms** will be an important source of stakeholder feedback and identification of issues / risks to be addressed, including on safeguards aspects
- **Rural business entity capacity development** and related improved performance will be recorded and reported by implementing partners, and through **an annual survey** of all programme-supported agribusiness entities. The CPMOs will organise the collection of data in accordance with the agreed indicators and report annually through the provincial PMO to IFAD. For this purpose, an operational data collection system of monitoring indicators will be established from the grassroots level (VIG and cooperatives) up to the PPMO. Such data collection will also include indicators to monitor implementation of safeguard plans (I.e. compliance with labor law, environmental protection etc.) and of the enterprise environmental and social management plans
- **Partners in charge of developing infrastructure and other activities will be required to disclose geo-spatial** location of all infrastructure / activities to ensure supervision of appropriate location of such activities and facilitate monitoring
- **Semi-annual Project Progress Report**. On semi-annual basis, CPMO will submit progress report to PPMO that will need to include a section on implementation of safeguards
- The project will conduct three rounds of **outcome surveys** (base-line, mid-term and end-line) which will both household survey and enterprise survey. Such outcome surveys i

Considering the large scope of infrastructure investments, the project should invest in quality Geospatial and climate informed planning and monitoring management across investments to enable decision-makers to make more informed, evidence-based decisions that consider spatial relationships and environmental factors and better monitor impact of project.

- o Geographic information systems (GIS) can be used for the investigation and evaluation of bamboo and camellia resources. By collecting data on bamboo forest distribution, growth status, and site conditions, more scientific tending plans can be developed to determine tending measures and tending cycles.
- o Geolocation of infrastructure sites will be collected by the borrowers/recipients/ partners and integrated in reporting map. Structural design will take climate change considerations into account as appropriate

In addition, safeguards monitoring will include specific thematic monitoring, in alignment with government and IFAD safeguards monitoring and over the key risks identified:

- o **Climate:** Indicators related to climate change, weather patterns and tracking / reporting any natural disasters required by government and IFAD

- **Energy consumption and emissions:** as the project include an outcome indicator on GHG emissions, it will need to track energy consumption and GHG emissions throughout activities required by government and IFAD
- **Biodiversity:** tracking localization of all project activities and land use change with geospatial coordinate to ensure activities are far from ecological zones as planed by government and IFAD
- **Road:** geolocation data showing planned and completed transects of new and rehabilitated roads ; Monitoring and evaluating traffic and road safety risks to affected local communities and other road users throughout the project life cycle required by government and IFAD
- **Labor influx :** monitor sourcing of labor and eventual risks and potential impacts on the health and safety of communities arising from the influx of project workers, including through grievance mechanisms analysis required by IFAD
- **Water:** Monitoring and analysing water productivity and water use efficiency throughout the irrigation system and for implementing improved and adaptive water management and use efficiency. This will build on the network of digital water meters and instant water flow data registration and analysis system installed in strategic places of the irrigation system subjected to water scarcity, the project will collect and analyse data on water flows combined with collected data influencing crop water needs, crops and varieties cultivated in the various fields, their yields and type of irrigation equipment used. This is required by government and IFAD.
- **Enterprise monitoring:** there shall be regular inspection to control that enterprise go by their environmental and social governance frameworks and that all social and environmental provisions are followed. This is required by government and IFAD.

Finally, the project could coordinate and leverage government environmental monitoring system to manage overall ecological risks related to pollution, environmental degradation, enforcement of environmental regulations in enterprise:

- **Environmental supervision.** MEE issued the Management on Environmental Protection Supervision during Project Construction and Operation on 10 December 2015. The construction unit is assigned the main environmental protection responsibility. During construction the requirements of the approved EIA document and its approval should be strictly implemented. The ecological and environment authority shall conduct supervisions during construction and operation.
- Provincial Environmental Monitoring Divisions manage the ecology and environment monitoring networks; and they have subsidiary monitoring centers to organize monitoring exercises (in terms of environmental quality, pollution sources, law-enforcement, etc.), manage monitoring data, and provide technical guidance and training to the monitoring teams within provincial jurisdictions. Such unit could also support training of project monitoring unit.
- At county level, the subsidiary environmental LETs (5-42 staff members) are responsible for having spot checks, special inspections, and surprise inspections by means of drones, third-party services, maps, and site visits to supervise physical projects over their construction pollution control, "Three Simultaneousness", environmental acceptance check, pollutant discharge permitting, and other environmental management work, etc. For example, since 2021, the environmental LET of Hunan Cili County EEB carried out spot checks on the environmental management of 18 large-scale livestock and poultry farms, 3 wastewater treatment facilities, and other enterprises within the county; and they have examined the pollutant discharge permit implementation of 7 enterprises and the EIA and "three simultaneities" procedures of 15 enterprises.

4.3 Reporting and Reviewing

The Project Management Office (PMO) will be responsible to conduct periodic compliance monitoring and evaluation of the SECAP related reports. To this effect, a generic reporting template and guidelines will be prepared and reporting periodicity will be defined with the view to (i) determine whether the proponent is carrying out the project in conformity with the ESCMP, (ii) identify problems, and (iii) develop plans for corrective action.. AWPB, including safeguards provision, will be prepared and implemented by the PMO. The PMO is specifically responsible to consolidate reports and submit them to IFAD.

In addition, Women and youth association will play specific roles in reviewing and reporting on progress related to gender and youth inclusion.

IFAD supervision mission will also always monitor, review and report on successful implementation of the safeguards

Implementation schedule will follow government schedule and IFAD schedule, ensuring at least yearly reporting as per IFAD requirement and described in PIM

In addition, China has specific provision for the monitoring and reporting of environmental safeguard for infrastructure construction and operations:

- During construction period, contractors will be responsible for environmental mitigation measures and construction supervision company will be responsible for supervision of the implementation of the mitigation measures.
- During operation period, project owner will be responsible for environmental mitigation measures and local EEB will be responsible for supervision of the implementation of the mitigation measures.
- During construction and operation, the project owner will engage 3rd party environmental monitoring companies to conduct environmental monitoring following the requirements in the domestic EIS/EIT and the local EEB will conduct irregular site visit and environmental sampling for environmental monitoring. In case of non-compliance is found, corrective action plan will be required by local EEB.
- Generally speaking, reviewing of implementation of the environmental mitigation measures is required in PRC but reporting on implementation of the environmental mitigation measures to the local EEB is not required in the domestic EIS/EIT.

4.4 Specific requirements of different sub-projects

Each infrastructure has different regulations and standards which will be embedded in the above steps.

4.4.1 Specific requirements for management plans of plantations (type of plantation for the camelia tree, medicinal plants & improved management of bamboo,)

The plantation shall not locate within any protected area or ecological redlines. Pesticide and fertilizer consumption shall comply with PRC and IFAD' s requirements.

4.4.1 Specific requirements for forestry infrastructures

In 2023, a Standard for Occupation of Forest Land by Engineering Facilities Directly Serving Forestry Production and Operation (Trial)¹⁷ was issued and used broadly most provinces in China to further explain the "**engineering facilities directly serving forestry production and operation on forest land**"(simply called "forestry infrastructures"), which includes: Facilities for cultivating and producing seeds and seedlings; Facilities for storing seeds, seedlings, and wood; Skid tracks, transport tracks, fire patrol tracks, and forest trails; Forestry research and popular science education Educational facilities; Wildlife and plant protection, forest protection, pest control in forestry, and forest prevention facilities for fire and wood quarantine; Infrastructure for water supply, power supply, heating, gas supply, and communication facility; Other engineering facilities that directly serve forestry production. During the construction of forest roads, measures should be taken to protect forest resources such as trees, water sources, wild animals and plants, and prevent natural disasters such as soil erosion and landslides. In order to enhance the ability of natural resource services to ensure the use of land for rural revitalization, the Ministry of Natural Resources has formulated the "Rural Revitalization Land Policy Guidelines (2023)"¹⁸.

They are jointly regulating forest industry infrastructure. They provides detailed standards for constructing forest infrastructure, focusing on legal land use, conservation principles, and efficient resource utilization. It specifies dimensions and guidelines for various facilities including seed and sapling cultivation, storage, pathways, research, wildlife protection, and basic utilities, aiming to support forestry production and management while ensuring ecological sustainability and compliance with national laws and regulations.

4.4.2 Specific requirements for irrigation work

Water Infrastructure construction shall comply with the basic engineering construction procedures and technical specifications (such as the Regulations on the Management of Hydraulic engineering Construction Procedures (2017)).

Reservoir: Reservoir shall be configured according to the standard of not less than 1 per 100 mu (capacity more than 50m³) (Guide to the construction of Anhui for camellia oil high-yield Demonstration Base, 2020, Anhui Forestry Bureau). Ecological tourism can be combined in the planning of forest road construction. The structure of the reservoir can be soft structure, PVC pipe is used in the field pipe, and PE pipe is used in the moving pipe. Bamboo pipe could also be piloted.

¹⁷ 20230216101813023797403.pdf (forestry.gov.cn)

¹⁸ <http://gi.mnr.gov.cn/202311/P020231129420620076449.pdf>

Equipment selection, system design, operation and maintenance can refer to the national standards "Micro-irrigation Engineering Technical Specification (GB/T 50485-2020)" and "Sprinkler Irrigation Engineering Technical Specification (GB/T 50085-2007)".

4.4.3 Specific requirement for roads

The construction of traffic lanes will be under the guidance of the Transportation Bureau, and the route selection and design will be carried out by a qualified professional design team according to the national traffic lane standards (Design Specifications for Low Volume Rural Roads, JTG/T 3311-202, Ministry of Transport of the People's Republic of China), and by a professional construction team. Environmental impact assessment is carried out to minimize the ecological impact. Land expropriated for the construction of traffic roads, if it is the land of individuals or enterprises, will be with the consent of the landowner, and will be given land compensation fees in accordance with the Regulations on the Implementation of the Land Administration Law of the People's Republic of China (Standing Committee of the National People's Congress, Order of the President No. 32, 2020-01-01).

Road constructions is guided by various standards: National standard : Technical code for village road engineering (GBT_51224-2017) , National standard : Well-facilitated farm land construction—General rule (GB/T 30600-2022) Ministry of transportation standard : Design Specifications for Low Volume Rural Highway Engineering¹⁹ (JTG / T3311—2021) . Such different standards include several environmental requirements which are included in the ESMP/F:

1. The selection of road routes should reduce the impact on the ecological environment, save land resources, avoid bad geological areas, avoid high filling and deep digging, prevent soil erosion, and protect the environment.
2. Adapt to local conditions and terrain.
3. Demolition of farm houses and occupation of arable land should be minimized as much as possible.
4. Encourage the use of green materials and processes, build ecological canal systems, buffer zones, etc., to reduce adverse impacts on the environment.
5. If the original road can be used, it should be maintained and utilized as far as possible, and the repaired road should meet the corresponding design standards.
6. New roads should be arranged along irrigation, drainage channels and field edges to reduce crossing buildings.
7. On the main, branch canal, the top of one side can be widened as a road.
8. For production roads in the farm, the pavement should use sand, mud, plain soil pavement and other permeable pavement. In heavy rainfall areas, concrete pavement can be used.

4.4.4 Specific requirement for warehouse and factory building

The selection of the location of the warehouse should meet the requirements of Planning and design parameter of general warehouse and warehouse area (GB/T 28581-2021)²⁰ . The warehouse should be far away from water sources and residential areas, should be built in a place with high terrain and no water, should be equipped with fire equipment and first aid medicine boxes, should have good ventilation conditions and install lighting system.

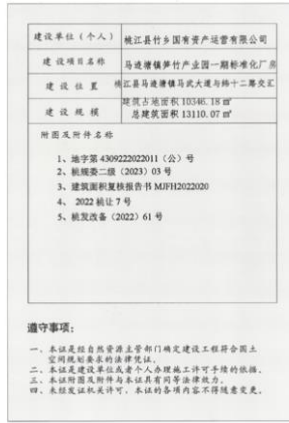
19 交通运输部关于发布《小交通量农村公路工程设计规范》的公告 国务院部门文件 中国政府网 (www.gov.cn)

20 国家标准|GB/T 28581-2021 (samr.gov.cn)

Based on Property Law of the People’s Republic of China, Certificate of Real Estate Use Rights²¹ (Figure 2) was released by the Department of Natural Resources of the county to get the land use rights of factory building. Construction Engineering Planning Permit Certificate based on Urban Rural Planning Law of the People's Republic of China and Construction Project Implementation Permit Certificate (Figure 3) based on Construction Law of the People's Republic of China released by the Housing and Urban Rural Development Bureau is also need. Several authorizations are required from above institutions and meet urban planning regulations. These two permits clearly specify the area, building area, building structure, and quality requirements for the newly built factory building. Construction Project Environmental Impact Report Form (Table 2) is also needed before the factory building, which is conducted by the third party. The Form specifies in detail the environmental risks and mitigation measures for the terrestrial ecosystem, surface and groundwater environment, acoustic environment, atmospheric environment, solid waste, and other aspects during the construction process of the factory building



²¹ https://www.gov.cn/gongbao/content/2016/content_5103156.htm



Contents 内容	Construction period 施工期		Operating period 运营期	
	Environmental Protection Measures 环境保护措施	Acceptance requirements 验收要求	Environmental Protection Measures 环境保护措施	Acceptance requirements 验收要求
Terrestrial ecology 陆生生态				
Aquatic ecology 水生生态				
Surface water environment 地表水环境				
Groundwater and soil environment 地下水及土壤环境				
Acoustic environment 声环境				
Atmospheric environment 大气环境				
Solid waste 固体废物				
Electromagnetic environment 电磁环境				

Environmental risk 环境风险				
Environmental monitoring 环境监测				
Others 其他				

4.4.5 Specific process for potential ecological impacts of physical works and agricultural activities

Ecological Environment Protection System 148. Implementation of the physical works and agroforestry activities may relate to local natural ecosystem and ecological protection redlines and cause site-specific soil erosion in construction which are covered under different laws and framework:

- Water and Soil Conservation Law (2010 Amendment): For any production or construction project that may lead to soil erosion, the responsible PIU should prepare a water and soil conservation (WSC) plan and submit it to the corresponding WRB for approval. For any production or construction project that is subject to WSC plans, the related WSC works must be designed, constructed, and put into operation simultaneously with the project main parts. Once the construction is completed, the WSC works must be checked for acceptance. The project is not allowed to put into operation if the check is not conducted or accepted. Accordingly, Hunan and Hubei developed and issued provincial measures on enforcing the “Water and Soil Conservation Law” and highlight the necessity of preparing WSC plans proportionate to the impacts of production or construction projects
- Wild Plants Protection Regulations (2017 Amendment): If a construction project may have adverse impacts on growing environment of national or local protection wild plants, the PIU must ensure the impacts be assessed appropriately in the EIA. Any entities or individuals are prohibited to illegally collect wild plants or damage their growing environment.
- Mechanism of WSC plan management: (i) Classification: All construction projects that are subject to WSC plans should finish the WSC plan development and approval procedures as required.
 - o A project with land acquisition/occupation over 5 ha, or earthwork or stonework over 50,000 m³ is subject to preparation of a WSC report; a project with land acquisition/occupation below 5 ha but over 0.5 ha, or earthwork or stonework below 50,000 m³ but over 1,000 m³ is subject to preparation of a WSC form; and a project with land acquisition/occupation below 0.5 ha, or earthwork or stonework below 1,000 m³ is exempted from preparation of WSC plans proper measures should be taken to prevent soil erosion.
 - o (ii) Approval: For a project that is subject to approval by central government, the WSC reports should go to national or provincial WRB for approval. For a project that is subject to approval by local governments, the WSC reports should be approved by the same level WRBs, while WSC forms should be approved by county level WRBs.
 - o (iii) WSC check at construction completion: PIUs are responsible for organizing WSC monitoring and supervision during project implementation, fulfilling WSC “three simultaneousness” requirements, carrying out WSC check for acceptance prior to completion acceptance or project operation, preparing WSC check reports, disclosing relevant information to the public,

and submitting the WSC check reports and materials to and get feedback from local WRBs.

- (iv) Supervision and inspection: WRBs are responsible for overseeing the WSC performance of construction projects, in terms of the compliance of the WSC plans, and the implementation of the WSC check, etc

5 Operational implementation arrangement

5.1 Institutional Arrangements

The PPMO will include a staff responsible to ensure proper implementation of social and environmental safeguards of the project in coordination with government institutions responsible for it. The staff will work in close coordination with safeguards specialists / focal points in each county and M&E officers to ensure integration of proposed safeguards indicators. In addition, this staff will work with the procurement unit / staff will be responsible to implement the safeguards plan for procurement, ensuring that procurement process for goods, service and consultancy follow proposed safeguards procedures, integrated specific criteria in bid document and selection process and reviewing **enterprise** capacities and mechanisms to implement required safeguards. Partner enterprise will also be screened against their social and environmental governance framework and capacities.

In addition, **PMO will work closely with the different institutions engaged in infrastructure development to ensure project is in line with all construction standards** and associated safeguards. :

- At the national level, the National Development and Reform Committee (NDRC), State Forestry and Grassland Administration, the Ministries of Water Resources (MOWR), the Ministry of Agriculture and Rural Affairs (MARA), the Ministry of Transport (MOT) are responsible for overall social-economic & forestry development planning, irrigation and water resources management, agriculture, rural roads respectively. They provide respective policy advice, technical guidance and programme supports to provincial and local governments and relevant institutions.
- **At provincial level:** At the provincial level, the Provincial Development and Reform Committee (PDRC), Department of Forestry, Department of Water Resources (DOWR), Agriculture and Rural Department (ARD) and the Department of Transport (DOT) are the line agencies respectively. They issue provincial sector development strategies, policies, plans and technical guidelines, formulate and implement work and budget plans for provincial government funded programmes and projects. In addition, the project will engage with Provincial Ecology and Environment Bureau (EEBs) EIA and Pollution Control Division and The provincial Environmental Assessment Centers
- **County level:** the counterpart agencies are the Bureau of Development and Reform (BODR), the Forestry Bureau, the Bureau of Water Resources (BOWR), the Agriculture Bureau, the Bureau of Transport (BOT), Power Bureaus, and Environmental Protection Bureaus. They formulate and implement county level sector development plans and projects, review and approve system planning and project designs for relevant investment activities, supervise their implementation, and advice system operation and management to ensure that construction programs are in line with government strategies and policies. They will support socio-environmental impact assessments, for relevant investment activities, supervise their implementation, and advice system operation and management.
- **Township:** Forestry and Agricultural Extensions Stations at township level are responsible for forestry and agriculture services and technical extension at field level and shall therefore be trained / engaged to implement proposed environmental safeguards in production.

PPMO **safeguard specialist & county focal points** will also work closely with institutions in charge of environmental and social safeguards who will be in charge of screening environmental risks, leading and approving dedicated environmental impact assessment for sub-projects triggering it, ensuring application of environmental safeguards and supervise environmental pollution (see section on M&E), More specifically, the following agencies have different roles:

- Provincial EEBs have EIA and Pollution Control Division (4-5 staff members) responsible for approval of larger scale or more sensitive EIAs for government programs, strategies, and projects, coordination and management of pollutant discharge permitting, supervision on pollution prevention and control, and preparation and implementation of provincial environmental entry lists, etc.
- The provincial Environmental Assessment Centers (about 20 staff) provide coordination services to the provincial EEBs in EIA approval. The provincial Environmental Law Enforcement Bureaus (about 40 staff members), responsible for organizing and guiding lower-level EEBs' work in EIA follow-up management, coordinating interprovincial environmental disputes, and investigating significant environmental issues within the province etc. Under the provincial EEBs,
- 74. Municipal EEBs also have divisions of EIA approval (4-5 staff members) that are responsible for approving EIAs. Under each municipal EEB, there is an environmental law enforcement team (LET, about 20 staff members) responsible for EIA follow-up management within the municipal jurisdiction.
- 75. County EEBs are branches of municipal EEBs and have divisions of EIA approval (2-5 staff members). They are responsible for approving EIA forms for projects that are approved by county/city governments. .
- In addition, at township governments there are 1-2 full-time environmental staff to coordinate with higher-level EEBs.

Finally, Prior to the commencement of each infrastructure project, a **corresponding infrastructure management body should be identified/established** to fully participate in the whole process of system planning, design and construction supervision, and assume the responsibility for operation and maintenance in accordance with proposed safeguards after the completion of the project. They shall therefore be trained early to implement such safeguards, including dedicated training to adapt to climate change, mitigate environmental risk, manage waste, minimize input use and promote water-saving irrigation technology. In addition, hand over / exit plan will need to ensure continuous technical and financial support from relevant government departments. Composition of such committee depend on infrastructure types:

- **The ownership of the industrial park** belongs to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure. After the completion of the infrastructure, the County Project Management Office shall be transferred right of use to the corresponding management agency in time. The management agency shall be responsible for the operation and maintenance of the infrastructure, and can receive technical and financial support from government departments and relevant agencies to ensure compliance with all safeguards
- **Ownership of the in-forest farm house and warehouse** improved under the project will belong to a user committee including the beneficiary villages (Cooperative organization), famers and enterprises, who will be responsible for O&M of these facility in a sustainable and safe way in line with the requirements of GB/T 42958-2023 "Instructions for the Use of Fertilizer Products"
- **Ownership of the irrigation systems** and the water source facilities improved and developed under the project will belong to the beneficiary villages, water users' associations or farmers' cooperatives depending on the decision made by respective county project management offices during the project implementation, based on the

size and benefiting scope of the systems. After the completion of the project, continuous technical and financial support is required from government departments and relevant irrigation management agencies.

- **Ownership of the on-forest farm roads** improved under the project will belong to user committee including the beneficiary villages (Cooperative organization), farmers and enterprises, who will be responsible for O&M of these road systems with continuous technical and financial supports from government transportation department.

5.2 Capacity Building

Capacity gap assessment plan

- The PPMO and CPMO have no previous experience with IFAD funded projects. The experience of individual staff within the city and the county EEB for environmental management varies considerably. Domestic EIAs and project approvals generally include mitigation measures, but there is not yet a regulatory requirement in the PRC for ESCMP as required by IFAD. Implementation of the ESCMP represents a significant new task for the local agencies.
- During the project preparation phase, preliminary training on ESCMP implementation shall be provided by IFAD staff and qualified expert, including roles and responsibilities of contractors, construction supervision companies (CSCs) and project owners for ESCMP implementation, project impacts, mitigation measures, GRM etc.
- More updated and detailed capacity development gap will be conducted at start up of the project and a detailed capacity building program will be developed and implemented, including: (i) implementation of the ESCMP including mitigation measures, monitoring, and reporting; and (ii) operation and maintenance of the constructed facilities.

The capacity development on safeguards will include the following:

- Provision for dedicated staffing with safeguards expertise in PMO and county
- Qualified experts can be selected to provide technical assistance and training to the project.
- Technical assistance from IFAD on SECAP implementation, with initial training at start up and follow up during missions
- Training will be provided by the experts and IFAD, facilitated by the PPMO and CPMO. Trainees will include the PPMO, CPMO, project owner, contractors, infrastructure management committee and CSCs. The interactive training methods will include classroom training, e-learning, case studies, video based training, and participatory on-site training at select subproject site.

Monitoring capacities: In addition, the project will could coordinate with provincial/local Environmental Monitoring Divisions to support training of project monitoring unit. They manage the ecology and environment monitoring networks; and they have subsidiary monitoring centers to organize monitoring exercises (in terms of environmental quality, pollution sources, law-enforcement, etc.), manage monitoring data, and provide technical guidance and training to the monitoring teams within provincial jurisdictions.

5.3 Costs and Budgetary Considerations

As per government regulations, feasibility study report and environmental impact assessment are currently being prepared and are compulsory for loan requests to international financing institutions. The total amount for such initial studies is estimated at 1 million CNY, i.e. around 143,000 USD financed by the government.

In addition, each institution submitting sub-project will need to prepare and finance a feasibility study and any environmental and impact assessment report-study required by government environmental and social safeguards. Such preparatory work is also embedded in the process of preparing production and business plans but any additional cost shall likely be borne by the institution submitting sub-project (i.e. county, CDIC, enterprise etc.); Integration of environmental measures in infrastructure will be included in the investment proposals; Implementation of such safeguards measures embedded in government procedures have been estimated to be around 4 million CNY, meaning 565,000 USD to be provided by government fund.

In addition, the project will have to carry out additional screening against IFAD safeguards and prepare adapted ESMP for all major investment projects; This would require about 500,000 CNY, meaning around 70,000 USD. Capacity development plans on more specific IFAD safeguards and to ensure compliance have been estimated at 420,000 CNY, meaning 60,000 USD.

Additional safeguard indicator and reporting requirements have been integrated in the general M&E and reporting process and costs of the project. Only additional costs are foreseen for the collection of additional data on pollution, use of pesticides (about 120,000 CNY so around 17,000 USD as well as additional data collection for monitoring traffic/accident.

Therefore the total indicative additional budget pertaining to IFAD additional safeguards to be financed from IFAD loan (within project management costs) would amount to about 147,000 USD, rounded up to 150,000 USD.

Budget provisions are made for safeguards staff at PMO and county level and compliance budget had been included which may cater for some additional costs (100,000 USD) but this budget may need to be increased to 150,000 USD.

6 Abbreviated Environmental, Social and Climate Management Plan (ESCMP)

To further strengthen social, environmental and climate management of the project, the following recommendations are made and detailed in the Environmental, Social and Climate Management Plan (ESCMP). They will combine two pathways for implementation:

- **Following existing government social and environmental regulations** that have been evaluated as satisfactory by the World Bank in terms of environmental impact assessment, ecological protection, pollution management, water and soil conservation, labour rights etc. Therefore, PPMO and CPMO will work closely with responsible institutions for follow-up supervision system, to oversee projects' performance in avoiding, reducing, or mitigating negative impacts on the environment.
- **Integration of safeguards in overall project cycle:** reference to safeguards shall also be integrated in the Project implementation manual, project monitoring and evaluation system, project annual work plan and budget, in production and business planning activities, procurement plans (see procurement SECAP matrix) and within planned contractual arrangement between corporate and smallholders.

The below table provides generic ESCMP for major investments in irrigation, roads, factory and plantations. They will be revised and improved during the preparation of the production plan and as part of government screening and management process.

During project implementation, CPMO will review and update/adapt ESCMP for each specific sub-project, conducting the following the tasks with the assistance from the consultants:

- Identify when specific subprojects require dedicated ESCMP - EIA according to China / IFAD regulations based on the project design and FSR
- Describe how mitigation will be planned and implemented based on the project design and FSR

- Identify when mitigation should take place, and who reviews and approves the plans
- Identify for the specific ESCMP of subproject, two-to-three safeguard performance indicators
- Assist the CPMO to implement the ESCMP
- Determine who is implementing the safeguard provisions of the specific subproject
- Determine timing and cost of these procedures for the subproject
- Update draft ECSMP matrix accordingly

The following table provides a generic framework assessing the different possible risks related to project activities. They will be adapted to each sub-project and its level of risks.

Table 1 ECSMP matrix general

Impacts	Government existing mitigation / enhancement measures	Additional Recommended Mitigation/Enhancement measures	Responsible Institution n Implementation Phase (together with the PMO & SECAP Focal Point)	Indicative budget financing source Unit: CNY	Means & Frequency of Verification
Safeguard documents	<ul style="list-style-type: none"> • General FSR for project proposal (ongoing-template to be provided / initial results) • Preparation of domestic EIA following PRC's requirements for each major project / county 		CPMO, borrower of subproject (CDIC, enterprise)	FSR: ongoing by government 1,000,000, domestic counterpart fund; (around 100,000/county)	FSR before appraisal EIA Prior to project construction
		<ul style="list-style-type: none"> • E&S and climate categorization the SECAP screening tool • Preparation of ESCMP • Update of ESCMP if necessary 	CPMO, borrower of subproject (CDIC, enterprise)	500,000, domestic counterpart fund; (around 50,000/county)	Prior to project construction After the project design is completed
Institutional strengthening for ESCMP Implementation and supervision	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Organize and conduct training on the project ESCMP for appropriate staffs of the PPMO, 	PPMO	420,000 project fund (capacity building fund) Staff as government	During project lifecycle

		<p>CPMO, PIUs and contractors</p> <ul style="list-style-type: none"> • IFAD support mission <p>SECAP staff and focal points for environment and social in county</p>			
Bidding and contract documents	•	<ul style="list-style-type: none"> • Mitigation measures in the ESCMP are incorporated in all bidding documents. <p>ESCMP will be included in the contracts of contractors</p>	CPMO	No budget is needed	<p>Prior to bidding.</p> <p>Prior to contracts signing</p>
GRM	•	<p>Establish GRM with sufficient staff and documentation and record system</p>	CPMO	No budget is needed	<p>Prior to project implementation and during project lifecycle</p>
Biodiversity inclusive planning	<ul style="list-style-type: none"> • The project will only intervene in areas that are already under some kind of agro-forestry system and will not support any conversion of natural forest. • Zoning will be done during project site selection to ensure that the project does not intervene in protected areas or biodiversity hotspots (including ecological redlines and water source protection areas). • The medicinal plants will be planted in the shade of trees, in commercial forest, and do not entail any erosion of the soil or other harmful consequences. • Furthermore, the project will promote activities that help to conserve soil and water resources. By adopting good agricultural practices, the 		<p>Agriculture and Rural Bureau</p> <p>Ecological and Environment Bureau (EEB) CPMO</p>	No budget is needed	<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports Status of mitigation measures verified at field</p>

	project will also be conducive to the sustainable use of natural resources.				
		<ul style="list-style-type: none"> Based on the project activities and location, biodiversity action plan and biodiversity management plan are not required. 		No budget is needed	
Genetic diversity and wild species in forest	<ul style="list-style-type: none"> As per Wild Plants Protection Regulations (2017 Amendment), impact on local wild plants shall be assessed in EIA and illegal collection of wild plants prohibited.: Any entities or individuals are prohibited to illegally collect wild plants or damage their growing environment. 		Ecological and Environment Bureau CPMO	50,000, domestic counterpart fund	Annually and ongoing as project is implemented Integrated in EIA if triggered
Biodiversity risks in Bamboo plantation	<ul style="list-style-type: none"> Out of the 3 value chains, only bamboo is harvested for woody material and the harvesting practices promoted are to ensure sustainable bamboo forest management. Digging bamboo shoots and thinning bamboo forests are commonly used methods for managing bamboo forests, which can effectively prevent the disorderly expansion of bamboo and increase the yield of bamboo shoots and the main grain of bamboo and wood. Bringing supporting trees: planting 75 to 150 support trees in each hectare of bamboo forest, selecting high-quality perennial tree species such as nanmu (<i>Phoebe zhennan</i> S. K. Lee & F. N. Wei) and <i>taxus chinensis</i> var. <i>mairei</i> (<i>Taxus wallichiana</i> var. <i>mairei</i> (Lemee & H. Léveillé) L. K. Fu & Nan Li). can effectively prevent bamboo bending, lodging, and other 	<ul style="list-style-type: none"> 	Agriculture and Rural Bureau EEB CPMO	100,000, domestic counterpart fund	Annually and ongoing as project is implemented Monitoring reports Status of mitigation measures verified at field

	<p>phenomena caused by rain and snow weather. Supporting trees increase the species diversity of bamboo forests.</p>				
<p>Pollution and input risks in Agro-forestry / plantations</p>	<ul style="list-style-type: none"> • The area currently mainly uses organic fertility management that will also be promoted by the project together with improved use of mineral fertilizer in fertigation system notably (digital advisory for micro dosing). • Pesticide use will not be financed by the project ; in addition, training – guidance will be included to ban use of any chemicals listed as prohibited or strictly controlled use under PRC regulations for pesticide management. ensure safe, effective and environmentally. Pesticide management plan will be prepared in line with the World Health Organization (WHO) and Food and Agriculture Organization of the United Nations (FAO) International Code of Conduct on Pesticide Management. • Increasing the proper management of the plantation through adapted management practices (trimming, spacing, etc...) will allow for improved productivity and use of natural resources. 	<ul style="list-style-type: none"> • Monitoring of fertilizer and pesticide consumption 	<p>CPMO</p> <p>Agriculture and Rural Bureau</p> <p>EEB</p> <p>CPMO</p>	<p>20,000, domestic counterpart fund</p> <p>100,000, domestic counterpart fund</p>	<p>Annually and ongoing as project is implemented</p> <p>Monitoring reports Status of mitigation measures verified at field</p> <p>Annually and ongoing as project is implemented</p> <p>Monitoring reports Status of mitigation measures verified at field</p>

	<ul style="list-style-type: none"> • Improve the management of land by using the under tree cover for medicinal plants, making the most of the forest resources and using positive plants relationships for soil reconstruction. • If / when minimal use of chemical fertilizer is required, project to include in the tender document a list of approved/certified chemicals and incorporate them in the tender. The list of approved/certified would be based on existing national regulation. In addition, project will promote safe fertilizer use by ensuring that the correct investments and capacity-building activities for the selection, distribution, storage, limited / micro-dosed application and disposal of fertilizers are included in all projects. • The project will seek to expand the "monitoring and control "system to identify and pre-empt pest & disease infestation. It will be mainly managed through uprooting of sick / infected bamboo shoots and use of bio pesticides • For Bamboo, diversified supporting trees can avoid some pests and diseases in bamboo forests. Meanwhile, the withered branches and fallen leaves of broad-leaved support trees effectively supplement soil organic matter. 				
Pathways/Roads location & environmental management	<ul style="list-style-type: none"> • The planning of forest roads should consider economic rationality and ecological sensitivity. Based on the distribution, density, and growth status of bamboo forests, the route and width of forest roads should be reasonably planned according to the standards stipulated in the Standard for Occupation of Forest Land by Engineering Facilities Directly Serving Forestry Production and Operation (Trial) in 2023,to 		Bureau of Forestry Department of Natural Resources Construction Bureau and	200,000, domestic counterpart fund	Annually ongoing project implemented and as is Monitoring reports Status of mitigation

	<p>minimize construction and operating costs and prioritize unused land, rehabilitation of old roads, and avoid any ecological hotspots; Sensitive localization shall be avoided.</p> <ul style="list-style-type: none"> • Following government rules and good practices to minimize environmental impacts and address any erosion risks: Conform to the mountain trend, reduce excavation and fill; (ii) Avoid ecologically sensitive areas, such as steep slopes above 25°, to avoid soil erosion and vegetation destruction; in addition, integrate erosion control and drainage measures (iii) Choose the road form and structure that is conducive to ecological protection, and use local stone and adobe materials as far as possible for pavement; (iv) Avoid triggering landslides, and avoid the destruction of ecological environment and biodiversity. • Forest road density; geo-referenced monitoring and evaluation (M&E) system for location of roads and potential traffic / safety risk appearing. • Minimize disturbance to woodland ecosystems. Avoid cutting down large numbers of trees or destroying vegetation. Protect wildlife habitats and migratory pathways. • Use of environmentally friendly construction technology • After road construction is completed, afforestation and vegetation restoration should be carried out in a timely manner to compensate for the forest area lost due to road construction. 		Transport Bureau CPMO		measures verified at field
Reduce consumption	<ul style="list-style-type: none"> • One of the purposes of the enterprise park is to reduce consumption of water, energy, raw 		Bureau of Forestry	500,000, domestic	Annually and ongoing as

<p>of water, energy, raw material and pollution in enterprise parks</p>	<p>material and pollution in comparison with individual spread out enterprises not having the means to invest in technology to optimize the use of water, energy, raw material.</p> <ul style="list-style-type: none"> • The location of the enterprise park can only be selected on industrial land, taking into account land costs and meeting the long-term development needs of the industrial park. • The selection of enterprise is subject to disclosure of environmental and social governance measures • Green, low-carbon, and high energy efficient drying, grinding, transportation, and heating equipment will be purchased and installed in the enterprise park. • Contractor’s HSMP is to include safe disposal of construction waste and worker camp waste, mitigation of risks to and impacts on the community resulting from the contractor’s work, safety of deliveries and transportation, and disposal of hazardous materials and waste. • Procurement of processing equipment, construction material and construction firms will include technical specifications that respect all government regulations on consumption of raw material and favor projects with the least consumption of raw material (including energy water etc.) and those promoting renewable energy and recycling of material; • Integrate additional social and environmental measures in business planning and financing agreement of the enterprise parks and corporate processing equipment (in addition to existing strict regulations of government): for instance to pilot and test improved utilization rate of raw materials / waste with bio-plastic, as well as the production of high-performance 		<p>Department of Natural Resources</p> <p>EEB</p> <p>CPMO</p>	<p>counterpart fund</p>	<p>project is implemented</p> <p>Monitoring reports Status of mitigation measures verified at field</p>
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	<p>bamboo based fiber composites. Invest in improved energy efficiency and piloting / trying use of solar energy or leverage use of waste etc.</p> <ul style="list-style-type: none"> Monitoring of GHG emission and reduction 				
Reduce pollution and health risks in warehouse construction	<ul style="list-style-type: none"> Ensure proper use of Warehouse to mitigate pollution and health risks: The selection of the location of the warehouse for storing fertilizers should meet the requirements of GB/T 42958-2023 "Instructions for the Use of Fertilizer Products". The warehouse should be far away from water sources and residential areas, should be built in a place with high terrain and no water, should be equipped with fire equipment and first aid medicine boxes, should have good ventilation conditions and install lighting system. Fertilizer and pesticide storage will follow PRC's General rules for the hazardous chemicals warehouse storage (GB 15603-2022) 		<p>Construction Bureau</p> <p>CPMO</p>	<p>50,000, domestic counterpart fund</p>	<p>During project design</p> <p>During project operation</p>
Reduce consumption of water, material and energy in Irrigation and mitigate pollution risk/leakage	<ul style="list-style-type: none"> careful planning of water infrastructure against government laws and safeguards to reduce water, energy and fertilizer consumption for instance through renewable energy and drip irrigation systems. In preparation, the impacts of climate change on water supply, water demand, frequency and intensity of floods and droughts will be assessed and integrated into system planning. Appropriate adaptation and mitigation options will be integrated into system design and operation, including the use of adaptive technology models and engineering, and the application of energy-efficient technologies and equipment to support effective water resources management. 		<p>Construction Bureau</p> <p>CPMO</p>	<p>200,000, domestic counterpart fund</p>	

	<ul style="list-style-type: none"> • For instance, Fertigation shall ensure sharp reduction in use of water and fertilizer in camelia oil tree. • Source of water shall be surface water (water harvested and stored from mountain streams and springs; in some cases, it will be pumped water from the rivers) or small reservoir; Feasibility study / environmental study to review and consider water availability and ensure impact on reservoir and river flow is negligible. • There will be no pumping in the peak of the dry season where irrigation water will come from the stored water in ponds and reservoirs. There will be no pumping of ground water financed by the project. • The project could try and demonstrate use of bamboo pipes instead of plastic pipes for low cost irrigation in bamboo plantations. • The O&M associations/group, like WUAs in areas of water scarcity, will be trained in adaptive water management for water use efficiency under different climate condition. • In most cases pipe or drip irrigation will be used and close loop circuit should be supported to have leakage of inputs. 				
Droughts	<ul style="list-style-type: none"> • Undertake drought risk assessment and zoning. • Review genetic diversity & possible options for better adaptation. • Promote the constructions of supporting facilities in irrigation areas • Promote water-saving and water harvesting practices in project areas including through water ponds and drip irrigation. 		Hunan Meteorological Bureau; Hunan Water Resources Department; Department of Agriculture and Rural	100,000, domestic counterpart fund	Annually and ongoing as project is implemented Monitoring reports; Status of mitigation and adaptation

	<ul style="list-style-type: none"> • Weather related insurance for agroforestry will be piloted through the project. • Develop drought monitoring and warning network as well as use of relevant climate advisory services: in areas with water scarcity: installment of a network of digital water meters in strategic places in the irrigation system and in the design of an instant water flow data registration and analysis system. The data on water flows will be combined with collected data influencing crop water needs, crops and varieties cultivated in the various fields, their yields and type of irrigation equipment used. This will allow for monitoring and analysing water productivity and water use efficiency throughout the irrigation system and for implementing improved and adaptive water management and use efficiency. 		Affairs of Hunan CPMO		actions verified at field
Rainstorm and flooding	<ul style="list-style-type: none"> • Identify risk areas in Business Plan (BP) planning and avoid construction of agricultural infrastructure in climate risk hotspots. • Acquire meteorological services in rainstorm monitoring and warning • Adopt flood management considerations for BPs in project areas vulnerable to flood and rainstorm. • As part of the training modules, build capacity of farmers in sustainable land management to reduce flooding loss. • Incorporate climate change factors and nature-based solutions into infrastructure improvements to increase resilience to natural disasters and the impacts of climate change: for instance, with canal setting, need to enlarge the section of canal, the capacity of canal can be increased depending on climate 		Hunan Water Resources Department; Hunan Meteorological Bureau; Department of Agriculture and Rural Affairs of Hunan CPMO	100,000, domestic counterpart fund	Annually and ongoing as project is implemented

	<p>change and size of flow rate; When construction of roads, anticipate potential erosion / flooding risks and mitigate risks by protecting slopes, ensuring passage way / diverging canal for water to direct water flow better/avert risks, and restoring ecology nearby the roads with local species / trees; Use vegetation cover to reduce water erosion / improve water storage.</p> <ul style="list-style-type: none"> • IMGs, supported by County PMO, will conduct disaster risk management following government strategies. 				
Disaster & general climate risks	<ul style="list-style-type: none"> • The project will take advantage of proven interventions and experiences in mitigating the vulnerability of the target groups to ecosystem and climate impacts in the country programme and incorporate the good practices in the final design. • Project will also invest in climate resilient practices. Participating stakeholders will ensure availability of climate advisory / alert systems, adoption of disaster preparedness plan and promote use of adapted insurance for the communities and beneficiaries. • Promote use of Forestry insurance shall include policy support addressing natural disasters, harmful biological disasters, accidents, epidemics, diseases etc.in Project area. 		<p>Bureau of Emergency Responses, Bureau of Meteorology</p> <p>CPMO</p>	100,000, domestic counterpart fund	Annually and ongoing as project is implemented
Reduce risk of erosion and loss ecosystem services in infrastructure, notably roads	<ul style="list-style-type: none"> • The cultivation of bamboo forests and oil tea pays attention to soil conservation, and paving gravel path on the slopes can serve as a barrier to maintain soil and nutrients. • By law, for any production or construction project that may lead to soil erosion, a water and soil conservation (WSC) plan shall be prepared proportionate to the impacts of 		<p>Construction Bureau and Transport Bureau</p>	500,000, domestic counterpart fund	Annually and ongoing as project is implemented

	<p>production or construction projects and the protection work needs to be done together with the main project and checked later. Hunan developed and issued provincial measures on enforcing the "Water and Soil Conservation Law" and highlight the necessity of preparing WSC plans.</p> <ul style="list-style-type: none">• There will be a mixture of upgrading of existing roads and construction of new roads. Most of the roads are too small to require an environmental assessment. The responsibility for rural roads has been transferred to the CARA, who will oversee that proper erosion control and drainage measures are built into the bidding process, contracts, and the engineering design before they give the final permission for the road construction.• Township governments working with the County PMO will manage the contracting process. In addition to the constructing company, a supervision company will be contracted to oversee the works and its acceptance. A warranty is included in the construction contract, which makes the constructing company responsible for fixing any failures in the works, including the failure to apply proper soil erosion control and drainage measures, within the 1st year after the end of the project.• Most of the roads will go through current forest land and collectively owned barren land. In a few cases forestland will be impacted, which will require the assessment of impacts and approval from the forest Bureau. Forest land with any protection category should be avoided.				
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	<ul style="list-style-type: none"> • Before the investment in any road infrastructure an operation and maintenance (O&M) plan for each section of the roads must be prepared, including roles and responsibilities, budget and sources of funding to ensure management of the roads and continuity of erosion mitigation infrastructure 				
Exclusion of most vulnerable women, youth and persons with disabilities	<ul style="list-style-type: none"> • Targeting, gender and social inclusion strategy is developed and fully applied • Quota applied to women and youth in project activities and leadership positions • Apply measures to address women's burden and save women's time and labour. • Strengthen women leadership and oversight: The women federation will oversee gender aspects, participate in village implementation group and create awareness / capacity on gender related issues. 		Department of Agriculture and Rural Affairs of HGDP Implementing partners, Women's Federation and the Youth League	570,000, project fund	Annually and ongoing as project is implemented Number of women, youth and in project activities
Indigenous People and ethnic minority & cultural heritage	<ul style="list-style-type: none"> • This is not foreseen to happen in the project but when a project proposes to utilize cultural heritage / heritage of IP, including knowledge, innovations or practices of local communities to benefit the project or for commercial purposes, communities should be informed of: (i) their rights under national law; (ii) the scope and nature of the proposed use; and (iii) the potential consequences. • FPIC of the local communities should be sought, and arrangements should be made for fair and equitable sharing of benefits. • The project Stakeholder engagement strategy includes ethnic minority. <ul style="list-style-type: none"> • The procurement of medicinal plant material and equipment / consultancy to support medicinal plants value chain will respect 		Township/country governments	The budget for IPPF and FPIC related activities are included in management budget.	Annually and ongoing as project is implemented Annual and baseline survey, project M&E reports

	government latest regulations on the topic and select relevant local species recognized at national level with clear commercialization regulations and consultation mechanisms				
Work safety and labor conditions	<ul style="list-style-type: none"> • Business Plan and investment agreements will include articles and commitment of compliance with national laws and regulations in safeguarding worker safety and health. • Training on Occupational safety and health measures are applied to establish and maintain a safe and healthy working environment, including the prevention and protection of workers from chemical, physical, biological and psychosocial hazards (including violence and harassment). • Project to include contract clauses for OSH measures to protect project's workers from injury, illness or impacts encountered in the workplace or while working to be included contract provision. high-quality Health and Safety Management Plan (HSMP) may be introduced as applicable in consultation with PMO for specific value chain actors based on assessed risk factors and exposure. • Identify potential hazards to workers, particularly those that may be life-threatening. For instance, Bamboo, Camellia oleifera, and herbal medicine are all planted and harvested in mountainous areas so will require safety training for workers and ensure they are equipped with protective measures such as clothing, hats, etc; 		Contractors CPMO enterprises, industry associations	500,000, domestic counterpart fund contractor?	M&E report, supervision report / Prior review of template for BPs and agreement, supervision missions

	<ul style="list-style-type: none"> • Protective measures include hazard labelling in languages understandable to the project workers, training and equipment to prevent occupational exposure to hazardous substances and materials; • Identify, prevent and respond appropriately to gender-based violence and harassment in the workplace; • Ensure construction sites have separated sanitation facilities for male and female workers and sufficient lighting in both the site and access paths; • Develop anti-harassment policies²² and incorporate related requirements in contractors' code of conduct, assign dedicated personnel to oversee compliance, include harassment prevention in contractor management training, and establish a confidential complaint and resolution mechanism for harassment grievances. • Wages and salaries are negotiated by both parties and implemented according to industry standards. • The workers involved in the project will sign contracts ensuring regular and timely payment of wages; adequate periods of rest; holiday, sick, maternity, paternity, and family leave; written notice of termination and severance payments, as 				
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²² For the anti-harassment policies, China's laws and regulations have been in line with IFAD's requirements. And relevant departments in China have released templates to guide enterprises in formulating relevant policies, including the Special Labor Protection System for Female Workers in the Workplace [P020240209368091062051.doc \(live.com\)](#) and the Policy of Eliminating Sexual Harassment in the Workplace [P020240209368091175676.doc \(live.com\)](#) which could be used by the contractors for the development of the anti-harassment policies and establishment of GRM.

	<p>required under national laws and project Labour Management Procedures . Deductions from wages will only be made as allowed by national law or the project's Labour Management Procedures,</p> <ul style="list-style-type: none"> • At the beginning of the project, standard contract templates for labor aligned with government policies will be developed • The project's beneficiary feedback and grievance redress system will be put in place in complementarity with the government's vertical complaint system. Hunan Women's Federation (HWF) will be engaged to help to protect the legitimate rights and interests of women workers. • There are early warning and defensive measures for emergencies. If necessary, arbitration and appeal can be conducted. <p>Improper pesticide management has risks to farmers and public health as well:</p> <ul style="list-style-type: none"> • Provide training and guidance to farmers on safe use of pesticide. Advise farmers to wear proper PPE such as masks and gloves while applying pesticide and dispose of pesticide packages following regulations. 				
<p>possibility of harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure) ?</p>	<ul style="list-style-type: none"> • Ensure relevant safety measures and emergency preparedness against natural or human hazards is included in the procurement documents. • Infrastructure shall be climate resilient • Bid and contract requires contractor to erect adequate warning signage's and also take up 3rd party insurance and construction insurance. Independent assessment of 		<p>Construction Bureau CPMO</p>	<p>1,000,000, domestic counterpart fund</p>	

	<p>structural integrity would be undertaken by government during construction.</p> <ul style="list-style-type: none"> • Contractor's HSMP is to include safe disposal of construction waste and worker camp waste, mitigation of risks to and impacts on the community resulting from the contractor's work, safety of deliveries and transportation, and disposal of hazardous materials and waste; • Contractor's HSMP is to incorporate emergency preparedness against natural or human hazards. • GPS coordinates of infrastructure sites shall be collected by the contractor following a systematic and standardized methodology, 				
Influx of project workers	<ul style="list-style-type: none"> • Corporate company bidding to join the project and enterprise park will need to include assessment of labor needs and plans to source labor; • it is foreseen that the labor will be locally sourced for the project but in case labor may come from outside the communities, the proposal shall include appropriate mitigation and management measures to address risks and potential impacts on the health and safety of communities arising from the influx of project workers. • Accordingly, Contract Conditions will include: <ul style="list-style-type: none"> • Gender-based violence, sexual harassment and sexual exploitation and abuse will lead to an employee's termination of contract under the contractor's code of conduct. • Influx of workers from outside project area limited to the minimum necessary and proposal shall include appropriate mitigation and management measures have been taken 		Contractors CPMO	200,000, domestic counterpart fund	

	<p>to address risks and potential impacts on the health and safety of communities arising from the influx of project workers.</p> <ul style="list-style-type: none"> Fair and equal wages along and living conditions 				
Community health	<ul style="list-style-type: none"> In the construction of public infrastructure, the design, construction, and operation of structural elements comply with national legal requirements and the IFAD's "Environmental, Health and Safety Guidelines", while also considering the safety risks to third parties and affected communities. Both bamboo shoot food processing factory and bamboo wood processing factory need to have construction land permits which require environmental impact assessment and selection of carefully selected areas with limited exposure to climate/natural risks; Furthermore, project elements will be designed and constructed by competent professionals, and certified or approved by competent authorities. Ensure relevant safety measures and emergency preparedness against natural or human hazards Bid and contract requires contractor to display adequate warning signage's and also take up 3rd party insurance and construction insurance. Independent assessment of structural integrity would be undertaken by government during construction. The residents in the project area provided material support in accordance with the local government's emergency plan, which included funding and material assistance for various activities. 		Township/cou nt y governments Women Federation, County Forestry Bureau CPMO	100,000, domestic counterpart fund	Annually and ongoing as project is implemented Monitoring reports; Status of mitigation and adaptation actions verified at field

	<ul style="list-style-type: none"> • The project will adopt a Do No Harms approach and will commit to addressing unintended consequences and potential harms. The project will be committed to protection of all vulnerable people and will include articulated channels for referral to services where available. As part of its gender and social inclusion (GSI) strategy, it will reflect the understanding that bias, resistance and backlash and has nuanced approaches to address them and will also reflect the principle of transformation starting with oneself by investing in GSI capacity building of project implementers and community members. • Law of the People's Republic of China on the Prevention and Control of Environmental Pollution Caused by Solid Waste will guide the waste management plans of processing factory 				
Road traffic risks / road safety	<ul style="list-style-type: none"> • It is not foreseen that the road infrastructures in the project will lead to significant increase in road traffic, nevertheless borrowers/recipients/partners are required to • ensure applicable traffic rules and road safety measures in the rural road network will need to be adhered to and road signs installed as needed according to the national regulations. • incorporate technically and financially feasible road safety measures into the project design documentation to prevent and mitigate potential road safety risks. • submit geographic information system (GIS) data to IFAD showing planned and completed transects of new and rehabilitated roads. • When appropriate, borrowers/recipients/partners must undertake 		Bureau of Forestry Bureau of transportation	200,000, domestic counterpart of fund	Annually and ongoing as project is implemented Monitoring reports; Status of mitigation and adaptation actions verified at field

	a road safety assessment for each phase of the project and monitor incidents.				
Fair benefit sharing – lease negotiation etc.	<ul style="list-style-type: none"> • Empower / train smallholders to negotiate fair conditions and improve benefits from engaging in partnership with enterprises / value chains • Enterprises and small farmers negotiate the terms of rent, lease term, renewal and termination to ensure the balance and protection of the interests between the lessor and the lessee. • This fair benefit sharing approach helps to establish long-term stable leasing relationships and promote cooperation and development between both parties. • Subprojects (Infrastructure funded by Investment grant) to incorporate provision based ESCMP in reference to national and/or provincial guidelines. 		CPMO	No budget is needed	Annually and ongoing as project is implemented Monitoring reports Status of mitigation measures verified at field
Minimize displacement and land tenure risks along side infrastructure development	<ul style="list-style-type: none"> • Minimize economic displacement during infrastructure construction, applying government measures favoring construction in barren land / existing constructions. • Voluntary land use: e.g. the construction of irrigation facilities and land in the farmland: The water harvesting and irrigation infrastructures financed by the project are small scale and low risks with ponds or small reservoir from 50-100m³. Only limited land areas will be used for reservoirs and pumping stations. Most of this land is currently village collectively owned barren land. Transparent, informed and documented discussion with all farmers benefitting from the planned irrigation system to reach voluntary signed consent with land user rights holders for placing water ponds or pools on their land. Organizing and carrying 		Bureau of Forestry, Bureau of Natural Resource, Agriculture and Rural Affairs Bureau	domestic counterpart fund, to be determined once subproject confirmed.	Annually and ongoing as project is implemented Monitoring reports Status of mitigation measures verified at field

	<p>out information disclosure and public participation activities to fully consult farmers' opinions; Signing land use and compensation agreements, in which terms of land use area, period, and payment time should be listed;Setting up GRM to timely receive, resolve and reply related grievance, appeal, complaints.</p> <ul style="list-style-type: none"> • Permanent land acquisition: if the construction of processing factory or any other project facilities required permanent occupy collective owned land (both construction land and farmland), or house demolition, it will trigger standard 7 of involuntary resettlement. RAP should be prepared. Main resettlement schemes included (i) cash compensation: land compensation fee, resettlement subsidy and compensation fee for ground attachments and young crops should be paid timely and fully according to the replacement price principle; (ii) Basic endowment insurance: allocate social insurance budget and purchase basic endowment insurance for qualified land-lost farmers; (iii) Livelihood restoration: develop and implement livelihood restoration measures, including but not limited to providing skills training, giving priority to affected people when using labors, recommend other employment opportunities;(iv) Organizing and carrying out information disclosure and public participation activities to fully consult affected people's opinions; Setting up GRM to timely receive, resolve and reply related grievance, appeal, complaints. 				
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	<ul style="list-style-type: none"> • Expanding the cultivation of bamboo and <i>Camellia oleifera</i> may involve land transfer. Organizing and carrying out information disclosure and public participation activities to fully consult farmers' opinions following the principles of legal, voluntariness and compensation; Signing LURT agreements, in which terms of land use area, period, rent and payment timeline should be listed; For projects involving the transfer of land use right of the whole village (group) with a large area, a large number of rural households and higher operational risks, risk security funds may be established; Giving priority to affected farmers when there are any employment opportunities; Setting up GRM to timely receive, resolve and reply related grievance, appeal, complaints. • Strengthening property rights registration and land management, applying government regulations and considering the following additional safeguards²³. • Clarifying land rights and establish safeguards to protect the legitimate tenure rights of spouses, family members and others who are not shown as holders of tenure rights in recording systems including in contract agreements with the Corporates. • In case of land dispute, do not engage in infrastructure or production investments in concerned land unless dispute settled formally through fair, open, and transparent means. 				
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○ 23 [In line with the Voluntary Guidelines on THE RESPONSIBLE GOVERNANCE OF TENURE OF LAND, FISHERIES AND FORESTS IN THE CONTEXT OF NATIONAL FOOD SECURITY,](#)

	<ul style="list-style-type: none"> Contracting parties should provide comprehensive information to ensure that all relevant persons are engaged and informed in the negotiations, and should seek that the agreements are documented and understood by all who are affected. The negotiation process should be non-discriminatory and gender sensitive. In case of economic displacement to construct infrastructure, ensure appropriate compensation as per province standards following the principle of the national unified guarantee of the basic living standards and property rights and interests of the expropriated farmers. 				
Risks related to collaboration & direct investments with private enterprise (insufficient ESMS or capacities to implement it)	<ul style="list-style-type: none"> Ensure due diligence assessment of beneficiary enterprise; ensure that companies have required environmental and social management system (ESMS) in line with China recently updated framework for disclosure of environment and social governance system for companies, providing standards for them to report and disclose environment and social elements and get them certified externally. In addition, capacity to implement ESMS will be screened and provision for capacity development made in case of capacity gaps. Improve the ESMS if necessary Project ES To provide support and oversight to and potential hire additional consultants to support implementation, monitoring and reporting. Maintain government and people participation in operation and management of investments: The project will mainly invest in public infrastructure belonging to the cooperative / 	e	CPMO CDIC	500,000, domestic counterpart fund	Business Plans review and regular implementation supervision

	<p>village entity (road and irrigation)- that will be operated and maintained at that level through ad-hoc committees according to government social and environmental safeguards. The ownership of the industrial park will belong to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure according to government social and environmental safeguards.</p> <ul style="list-style-type: none">• Enterprise shall submit annual report on their activities as well as implementation of ESMS and be subjected to routine visits by project and entities responsible for that at government level				
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7 Annex 5.3 sub annex1 IFAD exclusion list

IFAD will not knowingly finance, directly or indirectly, projects involving the following: (i) Production or activities involving harmful or exploitative forms of forced labour,¹¹⁶ or practices which prevent employees from lawfully exercising their rights of association and collective bargaining; (ii) Production or activities involving harmful or exploitative forms of child labour;¹¹⁷ (iii) Production or activities that impinge on the lands owned, or claimed under adjudication, by indigenous peoples, without full documented consent of such peoples; (iv) Activities prohibited by host-country legislation or international conventions relating to the protection of biodiversity resources, cultural heritage or other legally protected areas;¹¹⁸ (v) The production, trade in or use of any product or activity deemed illegal under host country (i.e. national) laws or regulations, international conventions and agreements, or subject to international phase-out or bans, such as: (a) Products containing polychlorinated biphenyls (PCBs); (b) Pharmaceuticals, pesticides, herbicides and other hazardous substances subject to international phase-outs or bans;¹¹⁹ (c) Ozone-depleting substances subject to international phase-outs regulated by the Montreal Protocol;

(d) Wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);¹²¹ and (e) Transboundary trade in waste or waste products, as defined by the Basel Convention;¹²² (vi) Commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests; (vii) Production or trade in wood or other forestry products other than from sustainably managed forests; (viii) Production or trade in alcoholic beverages (excluding beer and wine), tobacco or drugs; (ix) Marine and coastal fishing practices such as blast fishing, large-scale pelagic drift net fishing using nets in excess of 2.5 km in length or fine mesh net fishing harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats; (x) Trade in goods without required export or import licenses or other evidence of authorization of transit from the relevant countries of export, import and, if applicable, transit; (xi) Production of, trade in or use of unbounded asbestos fibres; (xii) All mining, mineral processing and extraction activities; (xiii) Production or trade in radioactive materials;¹²³ (xiv) Gambling, casinos and equivalent enterprises, trade related to pornography or prostitution; (xv) Money laundering, terrorism financing, tax avoidance, tax fraud and tax evasion; (xvi) Production and distribution, or investment in media that are racist, antidemocratic or that advocate discrimination against an individual, group or part of the population; (xvii) Activities prohibited by host country legislation or other legally binding agreements

regarding genetically modified organisms (GMOs); (xviii) Production of or trade in palm oil, unless from growers and companies with internationally recognised certification¹²⁴, or undergoing certification;¹²⁵ (xix) Production of soy in the Amazon region or trade in soy produced in the Amazon region, unless from growers with internationally recognised certification.¹²

8 Annex 5.3 sub annex 2: Review of China 2022 CCDCC standards on ESG against IFAD standard 8 requirements

China 2022 CCDCC standards on ESG (see table 2) were compared against IFAD standard 8 requirements. We found that the standards covers most IFAD requirements

Categories of requirement	IFAD requirement	Status in China 2022 CCDCC standards on ESG	Eventual gaps in China & proposed requirement
E&S policy	In its environmental and social (E&S) policy, the direct investee should state the organization, E&S requirements, including host country's environmental, social health and safety (ESHS) Laws and Regulations and standards that will be used to manage the E&S risks and define the objectives and principles that guide the project to achieve sound E&S performance.	The ESG standards refer to all government main social and environmental responsibilities laws and regulations, including GB/T 45001—2020 Occupational health and safety management system requirements and usage guidelines. GB/T 23331-2020 Energy management system requirements and usage guidelines GB/T 24001—2016 Environmental Management System Requirements and Usage Guidelines Governor. ISO 14090:2019 Adaptation to climate change — Principles, decision-making and key factors	Consistent

Identification of risks and impacts	Establish and maintain a process for identifying the E&S risks and impacts of the project.	The ESG framework reviews system of risk identification and management including for major risks and 1) staff safety and satisfaction; 2) climate, 4) S.3.2.2 Significant risks and impacts along supply chain ; 3) Potential risks of enterprises to the communities in which they operate, 4) potential reputational risks related to customers, clients etc. It promotes also direct survey to identify risks (such as complain mechanisms)	Consistent
Management plans	Develop environmental and social action plans (ESAPs) to specify how identified risks will be mitigated and/or managed.	ESG includes criteria to review their major risk management system as well as systems to ensure Employee safety risk prevention and control and to manage compliance risks	Consistent
Organizational capacities and competencies	Establish and maintain organizational structure that defines roles, responsibilities and authority to implement the environmental and social management system (ESMS). Specific personnel, including management representative(s), with clear lines of responsibility and authority should be designated.	Under governance, ESG standards has several indicators to review enterprise governance (Shareholder, board of directors, supervisor, management etc.) as well as whether governance performance is linked to ESG indicators; It also reviews whether ESG is integrated in business model and operations, thereby requiring to identify clear line of authority.	Consistent
Emergency preparedness and response	Where the project involves specifically identified physical elements, aspects and facilities that are likely to generate impacts, the ESMS will establish and maintain an emergency preparedness and response system. Where applicable, the direct investee will also assist	ESG standards includes dedicated indicator G.2.2.6 Enterprise emergency risk management which includes 1) Enterprise emergency risk management system, including emergency risk assessment, emergency procedures, emergency plans, Emergency resource status, etc.; 2)	Consistent

	and collaborate with the potentially affected communities (ACs).	Response plans for major public crises and disasters; 3) S.1.3.3 Response to safety accidents and work-related injuries It also includes a criteria for 1) Description of the company's policies for responding to major, sudden public crises and disaster events; 2) Specific measures and analysis of the company's response to major, sudden public crises and disaster events, 3) The specific social contribution of enterprises in response to major and unexpected public crises and disasters, such as: investme	
Monitoring	The direct investee will establish procedures to monitor and measure the effectiveness of the ESMS, as well as compliance with any related legal and/ or contractual obligations and regulatory requirements. Senior management in the direct-investee organization will receive periodic performance reviews of the effectiveness of the ESMS, based on systematic data collection and analysis	ESG indicator includes criteria to review specifically compliance risks to 1) Measures to deal with compliance risks and how to incorporate the measures into the compliance system process and implement them; 2) Evaluate the effectiveness of the response measures; Some risks have also explicit mention of monitoring needs such as for pollutants, emissions, climate and to Record and analyze occupational safety incidents and problems; ESG includes also another criteria G.2.5.3 Linkage between executive performance and ESG goals;	Consistent
Stakeholder engagement	Engagement includes stakeholder analysis and planning, public disclosure and dissemination of information, consultation and	The ESG standard has several indicators related to stakeholder engagement S.1.2.1 Democratic management of employees which reviews whether the	Consistent

	<p>participation, grievance mechanism, disclosure and ongoing reporting to ACs. IFAD will determine the need for broad community support, indicated by a collection of expressions by AC, through individuals or their recognized representatives, in relation to the proposed business activity</p>	<p>enterprise has system for such democratic management, workers union, consultation mechanisms and staff trainings. S.1.2.5 Employee Satisfaction Survey S.2.3.1 Customer Service including customer surveys S.2.3.3 Customer complaints S.4.1.1 Community engagement and development G.2.3.3 Complaint and reporting system and implementation</p>	
<p>Procedures for monitoring and disclosure</p>	<p>Establish monitoring procedures to review progress with ESAPs and compliance of operations with any legal and/or contractual obligations and regulatory requirements. Monitoring occurs on two levels: (i) site visits by IFAD staff and (ii) submission of the direct investee's annual monitoring report on progress in meeting the E&S terms of the investment agreement. IFAD will disclose the direct investee's progress against the ESAP. The direct investee will provide ACs with access to relevant information on (i) the purpose, nature and scale of the project; (ii) the duration of proposed project activities; (iii) any risks to and potential impacts on such communities and relevant mitigation measures; (iv) the envisaged</p>	<p>ESG includes indicator to review status of G.2.4.1 Information disclosure system and implementation Enterprises are responsible for the authenticity, accuracy and completeness of ESG reports. ESG reports should be accepted by the government, the public, news media and ESG reports can be used by companies, governments and regulatory agencies, investment institutions, third-party evaluation agencies, the public and news media, etc. Companies should disclose this in the form of ESG reports. ESG reports should be disclosed on platforms designated by regulatory authorities or independently chosen by enterprises. In addition, government environmental and ecological bureau has several systems for monitoring of enterprise which have been included in project ESCMF whereby</p>	<p>Consistent</p>

	stakeholder engagement process; and (v) the grievance mechanism	enterprise will need to submit annual report of implementation and be subjected to site visits.	
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Summary of template for ESG from CDC (approximate translations)

Tier 1	Tier 2	Tier 3
Environment	Input use and resource efficiency (equivalent standard 2 IFAD)	Water use, consumption, circulation and recycling
		Consumption of material including toxic one and non renewable ones
		Energy: use, management, share of renewable vs non renewable, investments in energy savings
		Natural resource management including land, forest, etc.
	Pollution	Waste management, discharge, pollutant
		Exhaust gas
		Solid waste (separate hazardous and non hazardous) & track emissions
		Other pollutants
	Climate change	Source type of GHG and investments to reduce GhG
Social	Employees rights	Recruitment: modalities, diversity, equity, turnover
		Protection: democratic management, work hours, indemnity/compensation, satisfaction, employment

		Health and safety management, risks assessment, responsibility accident, mental health prevention
		Staff development: training, career growth
	Product liability	Standard intellectual rights,
		Product safety
		Customer service, complaint mechanisms, customer rights
	Supply chain	Number and type of supplier, selection system
		ESG suppliers
		Procurement and channel
	Social responsibility	Community relations: engagement, development, identification risks and participation of communities
		Civic responsibility in terms of welfare, participation to national effort etc.
Governance	Governance Structure	Shareholder, board of directors, supervisor, management etc.
	Governance mechanisms	Compliance managemnet: risk management, customer relation
		Risk management : Includes various risks including climate
	Governance effectiveness	Culture, R&D, sustainable development (incorporation of corporate responsibility / ESG within business models, investments etc.)

9 Annex 5.3 sub annex 3: Outline for a Sample EIT (Category B)

Basic information of the project (Project name, contacts, project owner, address, total investment, land area, green land area etc.)
Project content and scale
Existing environmental issues related to the proposed project (normally it is for expansion or upgrading project)
Baseline environment (Topography, landform, geology, climate, meteorology, hydrology, vegetation, biodiversity, etc.)
Social environment (education, economy, physical cultural resources)
Environmental quality of the project area (air quality, surface water, groundwater, acoustic environment, ecological environment, etc.)
Major environmental project targets (sensitive receptors)
Applicable standards (ambient environment standards and emission standards of PRC and applicable World Bank Group's environment, health, and safety standards. The one more stringent applies)

Major ecological impacts
Anticipated impacts during construction
Anticipated impacts during operation
Proposed mitigation measures
Information Disclosure and Public Consultation
Conclusions and recommendations
Annex 1: Environmental Management Plan (see Appendix 3: Sample EMP)

10 Annex 5.3 sub annex 4: Sample GRM

The grievance redress mechanism (GRM) will be implemented through five escalating steps, advancing to the next level only if the grievance was unable to be redressed at the previous level. Note that (i) at any stage in the GRM, an affected person may submit their grievance to any agency they feel most comfortable with. If such agency is not listed in the steps below, they will also need to inform at least one of the listed individuals or agencies, to enable the GRM procedures to be implemented; and (ii) the GRM does not replace the role of existing laws and legal procedures. In the event of any grievance, the CPMO will immediately inform the IFAD, and then ensure that IFAD is updated on the progress.

Step 1: If a concern arises, the affected person should try to resolve the issue of concern directly with the contractor or via the GRM access points (community leaders, neighborhood organizations, municipal or provincial environment and ecology bureau [EEB]) during the construction phase, and/or the operator during the operation phase. If the concern is resolved successfully no further follow-up is required. The contractor (during construction) and/or the operator (during operation) shall record any complaint and actions taken to resolve the issues and report the results to the CPMO. If no solution is found within 7 working days or if the complainant is not satisfied with the suggested solution under step 1, proceed to Step 2.

Step 2: The affected person will submit the grievance to the program implementation unit (PIU) (if not done in step 1). The PIU will record the grievance, assess its eligibility, and report back to the affected person within 7 working days. If the grievance is eligible, proceed to step 3.

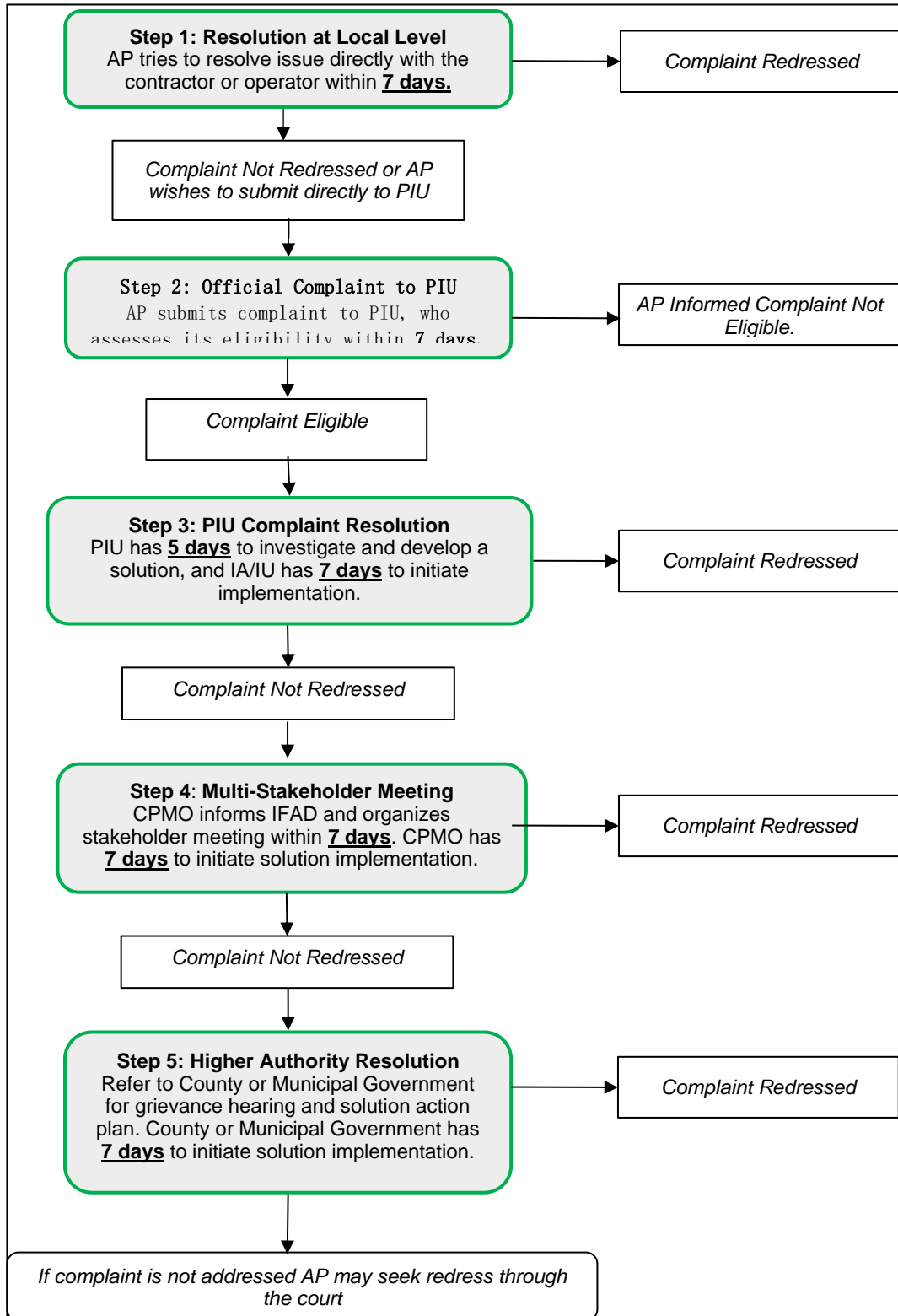
Step 3: The CPMO will investigate the complaint and consult with the executing and implementing agencies and other stakeholders, as appropriate, in an attempt to identify a solution. The PIU will give a clear reply to the affected person within 5 working days with the suggested solution, and the executing and implementing agencies will ensure that implementation of the agreed-upon redress solution begins within 7 working days. If no solution is found or if the complainant is not satisfied with the suggested solution under step 3, proceed to step 4.

Step 4: The PIU, through the CPMO, will inform IFAD as to the grievance and will organize a multi-stakeholder meeting within 5 days, where all relevant stakeholders, including the complainant, the executing and implementing agencies, PIUs, IFAD, and EEB can discuss the issue. The multi-stakeholder meeting will aim to find a solution acceptable to all and identify responsibilities and an action plan. The PIU will ensure that the implementation of agreed-upon redress solution begins within 7 working days of the completion of the multi-stakeholder meeting.

Step 5: If the complainant is not satisfied with the suggested solution under step 4, the grievance will be directed to the provincial government. The government will direct the PIU to organize a hearing process and shall determine a solution acceptable to all. Based on the hearing results, an action plan shall be developed, and the PIU will ensure that the implementation of the agreed-upon redress solution begins within 7 working days of the completion of the hearing.

The GRM steps are illustrated below. If the GRM steps are unsuccessful, persons who are, or may in the future, be adversely affected by the project may submit complaints to the court.

Sample Grievance Redress Mechanism



11 Annex 5.3 sub annex 5: References

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Annex List of social safeguards laws-regulation in China with related IFAD social safeguards requirements

Table Correlation Analysis between the Chinese Social Safeguard Policies and the IFAD's SECAP

Social impacts and risks	IFAD's SECAP	China's social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
Comprehensive social impacts, e.g., social conflict, fairness, transparency	social impacts and risks assessment and management system	Notice of the National Development and Reform Commission on Issuing the Measures for the Social Stability Risk Assessment of Major Fixed Asset Investment Projects (2021 Amendment)	State: National Development and Reform Commission (NDRC); Hunan Province: <ul style="list-style-type: none"> • Leading authorities: provincial DRC, provincial, municipal and county political and legal affairs committees (PLAC), public complaints and proposals bureaus (PCPB); • Assessors: municipal and county competent authorities (e.g., WWTF authorities, county HURDBs and appointed third parties • Registration authorities: provincial (cross-regional / cross-departmental projects), or municipal and county PLACs • Decision-making authorities: municipal and county executive meetings of CPC and government leaders • Implementing agencies: assessors and entrusted operating units • Supervising agencies: municipal and county governments and their grass-root agencies (e.g., township governments)
		Notice of the General Office of the National Development and Reform Commission on Issuing the Outline for the Preparation of the Chapter on the Social Stability Risk Assessment of Major Fixed Asset Investment Projects and Assessment Report (Interim) (NDRCOI [2013] No.428)	
		Opinions on Strengthening the Mechanism of Social Stability Risk Assessment for Major Decisions in the New Situation (ZBF [2021] No.11)	
		Implementation Measures for Risk Assessment of Social Stability for Major Decisions (Items) of the Judicial and Administrative System of Hunan Province (Trial) (2012.9.20)	
		Interim Regulations on Major Administrative Decision-making Procedures (2019.9.1)	
		Regulations on Letters and Visits (2022.2.25)	
		Regulation on Guaranteeing Wage Payment for Migrant Workers (2020.1.7)	
		Notice of the Ministry of Agriculture and Rural Affairs General Office on the Training of High-quality Farmers in 2022 (2022.4.15)	
		Specifications for Education and Training of High-quality Farmers in Hunan Province (Trial) (XNF [2020] No. 48)	
Tangible culture heritage	Standard 3: cultural heritage conservation	Cultural Relics Protection Law (2017 Amendment)	State: National Cultural Heritage Administration Hunan: provincial, municipal and county cultural relic protection authorities
		Regulations for the Implementation of the Cultural Relics Protection Law (2017)	
Public and worker safety	Standard 5: labour and	Civil Code of the People's Republic of China (2021.1)	Public and workers' security State: Ministry of Emergency Management
		Work Safety Law of the People's Republic of China (2021.6)	

Social impacts and risks	IFAD's SECAP	China's social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
working condition		Law of the People's Republic of China on the Prevention and Control of Occupational Diseases (2018.12)	Hunan: emergency management department and competent authorities at provincial, municipal and county level, production and operation entities, associations, work safety technical supporting agencies Health of the public and occupational groups State: National HC Hunan: provincial, municipal and county HCs, ARABs, AHVMBs, MSAs, occupational diseases prevention and treatment agencies, occupational health technical service agencies, occupational health inspection and diagnosis agencies Labor management State: Ministry of Human Resources and Social Security (MHRSS), All-China Federation of Trade Unions Hunan: provincial, municipal and county federations of trade unions, and industrial unions; trade unions of enterprises and public institutions
		Guidelines on the Prevention and Control of Occupational Diseases for Employers (2010.8)	
		Occupational Health and Safety Management Systems—Requirements with Guidance for Use (2018.3)	
		Classification and Catalogue of Occupational Diseases (2013)	
		Catalogue for the Classified Management of Occupational Disease Hazards and Risks of Construction Projects (2021.3.12)	
		Special Rules on the Labor Protection of Female Employees (Decree No.619 of the State Council) (May 2012)	
		Notice on the Issuance of the National Plan for Occupational Diseases Prevention and Control (2021-2025) (NHC [2021] No. 39)	
		Regulations on Work-related Injury Insurance (2010.12.20)	
		Implementation Measures for Regulations on Labor Protection of Female Employees of Hunan Province (2020.3.8)	
		Food Safety Law of the People's Republic of China (2021.4.29)	
		Law of the People's Republic of China on Quality and Safety of Agricultural Products (2022.9.2)	
		Law on the Prevention and Treatment of Infectious Diseases (2020)	
		Emergency Response Law of the People's Republic of China (2007.11.1)	
		Regulations on the Prevention and Control of Geological Disasters (2004.3.1)	
		Regulations on the Defense against Meteorological Disasters (1 April 2010.4.1)	
		Regulations of the People's Republic of China on Flood Control (2005.7.15)	
		Law of the People's Republic of China on Protecting against and Mitigating Earthquake Disasters (2009.5.1)	
Land acquisition, restriction on land use and resettlement	Standard 7: Physical and economic resettlement	Measures for the Administration of the Pre-examination on the Use of Land for Construction Projects (2017) Land Administration Law (2020.1) Regulations for the Implementation of the Land Administration Law (2021 Amendment) Notice of the Ministry of Natural Resources on Regulating Temporary Land Use Management (MNR [2021] No.2) Guidelines on Improving the Compensation and Resettlement System for Land Acquisition (MLR [2004] No.238)	Land acquisition and temporary land use (TLU) State: Ministry of Natural Resources (MNR) Hunan: provincial, municipal and county governments, and natural resources authorities Favility agriculture alkind use (FALU):

Social impacts and risks	IFAD's SECAP	China's social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
		Notice on Doing a Good Job in Employment Training and Social Security for Land-expropriated Farmers (SCO [2006] No.29)	State: Ministry of Natural Resources (MNR), Ministry of Agricultural and Rural Affairs (MARA) Hunan: NRBs and ARABs at provincial, municipal and county level, and township governments Land use right transfer (LURT): State: MARA Hunan: provincial, municipal and county agriculture and rural affairs authorities, township governments Livelihood restoration State: Ministry of Human Resources and Social Security Hunan: provincial, municipal and county human resources and social security authorities, county and township governments, community committees, village committees
		Notice of the Ministry of Labor and Social Security, and the Ministry of Land and Resources on Doing a Substantially Good Job in Social Security for Land-expropriated Farmers (MLSS [2007] No.14)	
		Guidelines of The General Office of the State Council on Scientific Greening (GBF [2021] No.19)	
		Guiding Opinions of the General Office of the CPC Central Committee and the State Council on the Overall Delineation and Implementation of the Three Control Lines in National Spatial Planning (TZ [2019] No. 48)	
		Notice of MNR, MARA and NFGA on Issues concerning Strict Control of Cultivated Land Usage (MNRP [2021] No.166)	
		Measures for the Administration of the Land Use Right Transfer of Rural Land (Decree 2021 No.1 of MARA)	
		Notice of MNR, MEE and NFGA on Strengthening the Management of Ecological Protection Red Line (Trial) (MNR [2022] 142)	
		Circular of the MNR and MARA on Issues Related to the Management of Facility Agricultural Land (ZRZG [2019] No. 4)	
		Notice of Hunan Provincial People's Government on Adjustment of Compensation Standards for Land Acquisition in Hunan Province (XZBF [2021] No.3)	
		Management Measures of Hunan Province on Urban House Demolition and Removal (Order 157 of Hunan Provincial People's Government) (2002.6)	
		Notice of Hunan Provincial Natural Resources Department on Improving the Management of Facility Agricultural Land Use (XNRP [2020]No.3)Rural Construction Projects (Trial) (XFGNG [2021] No. 140)	
		Several Opinions of Hunan Provincial Development and Reform Commission, Natural Resources Department, Agriculture and Rural Affairs Department on Simplifying and Optimizing the Management of Small Rural Construction Projects (Trial) (XFGNG [2021] No. 140)	
		Implementation Opinions of Hunan Provincial Communist Party Committee and People's Government on Strengthening the Protection of Cultivated Land and Improving the Balance between Occupation and Replenishment (2020.7.30)	
		Ethnic minorities and vulnerable groups	
Law of the People's Republic of China on Regional National Autonomy (2001 Amendment)			
Several Provisions of the State Council on the Implementation of the Regional National Autonomy Law (2005.5)			

Social impacts and risks	IFAD's SECAP	China's social impacts and risks management system	
		Relevant social laws and regulations	Social management agencies
		Notice of the State Council on Issuing the 13th Five-year Plan for Promoting the Development of Minority Areas and Smaller Ethnic Minorities (SC [2016] No.79)	State: All-China Women's Federation Hunan: women's federations at different levels Children Functional authorities of governments at or above the county level, township governments, sub-district offices, community committees, village committees
		Law of the People's Republic of China on the Protection of Women's Rights and Interests (2022.10.30 Amendment)	
		Law of the Peoples Republic of China on the Protection of Minors (2020.10.17)	
		Opinions on Reforming and Improving the Social Assistance System (ZBF [2020] No.18)	
		The 14th Five-Year Development Plan of Hunan Province on Ethnic Work (2021)	
		Implementation Measures of Hunan Province for the Protection of Rights and Interests of Women (2006.10.1)	
		The 14th Five-Year Plan of Civil Affairs of Hunan Province (2021.8.31)	
		Plan of Hunan Province for Women's Development (2021-2025) (2021.9.16)	
		Implementation Opinions of Hunan Provincial General Office of the CPC Central Committee and Government on the Reform and Improvement of the Social Assistance System (XBF [2020] No.25)	
		Strategic Plan for Rural Revitalization of Hunan Province (2018-2022) (2018.9)	

1 Annex 5.3 sub annex 5: Template for Labor Management Procedure for Subprojects

1. Introduction

The Hunan Green Development Project (HGDP) aims to promote rural revitalization and enable smallholders to benefit from rural transformation through a private sector led green growth model which is inclusive and environmentally sustainable. The project will be implemented over a six-year period in 7 counties (Taojiang, Hengshan, Yanling, Pingjiang, Heshan, Yuanling and Xupu). The development objective of the project is to increase smallholders' capacity for enhanced production and productivity and access to markets, strengthen environmental sustainability and climate resilience, by focusing on three selected value chains namely Bamboo, Oil-Tea Camelia and medicinal herbs in seven selected counties in the Hunan Province.

It should be noted, the Terms and Conditions of Employment in IFAD ESCAP Standard 5 stipulates that IFAD-supported projects must include written Labour Management Procedures (LMP) setting out the conditions in which workers can be employed or engaged, and managed in line with these Standards and national laws. Thus, the subprojects of HGDP that involve significant risks or impacts on labor and working conditions will develop a labor management procedure (LMP) as part of the safeguards package before subproject approval.

At this Appraisal stage, the list of subprojects have not confirmed, and it is therefore unable to clearly define project workers and project-specific labor risks as set out in Standard 5: *Labor and Working Conditions*. A *labor management procedure* will be developed when the subproject can be located, and the investment activities can be defined. This template for subproject LMP was created with the overarching objectives as below:

- Mapping different categories of workers by potential subproject typologies;
- Screening significant labor risks and impacts under the project;
- Reviewing China's labor legislations in terms of labor and working conditions, occupational health and safety;
- Setting out the responsibilities of the sub-borrowers (PIUs) in relation to each category of project workers;
- Setting out the ways in which the associated subprojects will meet the requirements of Standard 5 that apply to different types of workers; and
- Creating a LMP template to facilitate sub-borrowers to customize a project-specific LMP during subproject preparation.

The content of this template is indicative, where the issues identified are relevant in a subproject, the sub-borrowers should capture them in the LMP.

6. Overview of Project Workers by Subproject Typologies

The Standard 5 defines four categories of project workers, which are summarized in **Table 1**. It can be generally concluded that community workers will not be involved or engaged in the project, in consideration of the commercial nature and objectives of the enterprises to be financed by the project. In the future, when the subproject is defined, a screening exercise will be carried out by CPMO and the sub-borrowers to further confirm the types of workers and its size by types and positions in a specific subproject, following the IFAD's definitions on each type of workers.

Table 1: World Bank/IFAD's Definition of Four Categories of Project Workers

Types	Definitions

Direct Workers	<p>People are employed or engaged directly by the sub-borrowers to work specifically in relation to the subprojects.</p> <p>Examples of direct workers include persons employed or engaged by a sub-borrower, paid directly by a sub-borrower and subject to a sub-borrower's day-to-day instruction and control.</p>
Contracted Workers	<p>People are employed or engaged through third parties to perform work related to core functions of the subprojects, regardless of the location. Third parties may include contractors, subcontractors, brokers, agents or intermediaries. Core functions of a subproject constitute those production and/or services processes essential for a specific project activity without which the subproject cannot continue.</p> <p>In such circumstances, the employment relationship is between the third party and the project workers, even if the project workers are working on an ongoing basis on subproject activities.</p>
Community Workers	<p>Community workers are used in a number of different circumstances, where labor is provided by the community as a contribution to the project, or where projects are designated and conducted for the purpose of fostering community-driven development, providing a social safety net, or providing the targeted assistance in fragile and conflict-affected situations.</p> <p>Community workers will not be employed or engaged in relation to the project.</p>
Primary Supplier Workers	<p>People are employed or engaged by the sub-borrower's primary suppliers. Primary suppliers are those suppliers who, on an ongoing basis, provide directly to the project goods or materials essential for the core functions of the project.</p> <p>For example, in the case of one agricultural products processing enterprises, large external production bases which provide materials to it and are operated by other enterprises, cooperatives or individuals, are the most apparent types of primary suppliers and the workers working on the production bases can be classified as primary supply workers to the processing enterprises.</p>

Identifying the nature of the employment relationships with project workers is important for categorizing workers appropriately. Determining the existence of an employment relationship is guided primarily by the facts relating to performance and organization of the work and the type of workers' remuneration. In some circumstances, even where the worker is engaged on the project long term, the control of and legal responsibility for the worker remains with the third party and the worker is a "contracted worker" for the purposes of Standard 5. In other circumstances, the third party may source and recruit the worker on behalf of the sub-borrowers, such as the project implementation unit and such workers are "direct workers" for the purposes of Standard 5.

Currently the number, characteristics of subproject workers are not clearly identified, which will be filled in the **Table 1** by each sub-borrower once the subproject is determined. The following elements will be described in this section, based on the available information:

- **Characteristics of project workers:** *To the extent possible, a broad description and an indication of the likely characteristics of the project workers*

e.g. local workers, national or international migrants, female workers, workers between the minimum age and 18.

- **Timing of labor requirements:** The timing and sequencing of labor requirements in terms of numbers, locations, types of jobs and skills required.
- **Contracted workers:** The anticipated or known contracting structure for the project, with numbers and types of contractors/subcontractors and the likely number of project workers to be employed or engaged by each contractor/subcontractor. If it is likely that project workers will be engaged through brokers, intermediaries or agents, this should be noted together with an estimate how many workers are expected to be recruited in this way.
- **Migrant workers:** If it is likely that migrant workers (either domestic or international) are expected to work on the project, this should be noted, and details provided.

Table 3 Breakdown of Subproject Workers by Types

Types of Workers	Positions	Number of Project Workers	Proportion of Female Workers	Timing of Labor Requirements
Direct Workers				
Contracted workers				
Primary Supply Workers				
Community Workers				

7. Screening Potential Labor related Risks and Impacts

This section describes the following, based on available information.

Project Activities:

The type and location of the sub-project receiving financing from HGDP, and the different activities the subproject workers will carryout.

Key Labor Risks:

This section describes the key labor risks which may be associated with the subproject activities. During the DRM, initial screening for the potential labor risks have been carried out for sample enterprise, potential significant labor risks which may be associated with the project may include as follows which could guide sub-borrowers on screening key labor risks associated with their project activities:

- **The conduct of hazardous works**, such as working at heights or in confined spaces, use of heavy machines, and use of hazardous materials, are the most significant labor risks related to this project. In the value chains of input production and processing, the nature of the work-related hazards would be more significant, but China has very comprehensive regulations to govern it and the enterprises itself also normally have in-place systems to manage the risks associated with hazardous work. In the value chains of production (especially in plantation bases for examples) and post-harvest, although the nature of the work may not be pretty hazardous, most of the workers in these positions are usually farmers from the local communities lacking strong safety awareness, which may in result increase the likelihood of safety accidents, especially related to machines operation.
 - **Occupational and health hazards:** are mainly linked to input production, especially manufacturing of pesticides, fertilizers, etc. China has comprehensive regulations to manage the workplace hazards and local administration of work safety has routine supervisions to the factories with significant occupational and health hazards to assure the associated risks appropriately managed throughout the lifecycle of the facility.
 - **Likely presence of juvenile workers** (16- 18 years old): China has issued very stringent policy to prevent use of child labor and forced labor in any sector and the local labor authority normally carries out routine and intensive supervision to ensure the policy is well implemented. The desktop study, government consultation and visits to selective agricultural enterprises demonstrated the risks associated with child labor and forced labor is negligible in Hunan Province. Juvenile workers (16- 18 years) are allowed by both Standard 5 and Chinese regulations and it was learned that it may potentially exist in non- hazardous positions the production workshops if some enterprises could not employ enough adult workers.
 - **Possible accidents or emergencies:** It is mainly related to the risks resulting from the conduct of hazardous work. In consider of the nature of construction in crop and livestock sectors, it is unlikely to involve large scale of civil works or large number of construction workers. The potential accidents during construction could not be significant if the contractors are well managed following the legislations.
- Excessive overtime working:** Agricultural workers would normally extend working hours in peak production months. China has in-place regulations on maximum hours for overtime working. All enterprises are required to follow the law and make additional payment for extended hours. In some cases, the owners of few SMEs would have limited awareness on labor law and request the workers to work beyond the maximum hours regulated by the law.
- **Presence of large number of seasonal workers:** For the three value chains plantation and products processing, the subproject enterprises will assign

technical and management personnel, whilst most of the non-technical labors are seasonal workers employed or engaged from the local villages close to the production bases. Engagement with several agricultural enterprises shown the project investment are unlikely to involve significant labor influx in the sector in Hunan. Due to heavy workloads for planting and production, and relatively lower income as compared with that from industrial and commercial sectors, the young adults prefer to seek employment outside to earn more. Generally, the labors for crop and livestock production usually aged from 40 to 60. No special concerns on gender discrimination was identified through engagement with several agricultural enterprises during the project preparation.

In consideration of the local context and nature of the project activities, the subproject is unlikely to involve large influx of labors. Most of labors will be employed or engaged in the production related activities, who are usually the local residents from the nearby communities. The project investment activities will be concentrated in Hubei Province. The project is deemed as low on gender-based violence (GBV) risk. If other labor risks are identified or arise during subproject implementation, the sub-borrowers, with the support of CPMO will develop procedures to prevent further impacts and risks.

Wages

The distribution of wages shall follow the principle of distribution according to the nature of work and equal pay for equal work.

The employer is required to sign an agreement in writing with each worker. A labor agreement will determine the form of wage distribution and wage level for the workers on basis of the characteristics of enterprise's production and business and economic results (*Article 47 of the Labor Law*). The workers should be paid above the local standards on minimum wage issued by each provincial government on an annual basis (*Article 48 of the Labor Law*). Wages should be paid to workers in form of currency monthly, which should not be deducted or delayed without justification (*Article 50 of the Labor Law*).

Working Hours

According to the Labor Law of PRC and Provisions of the State Council on Working hours of Workers and Staff, duration of work will not exceed 44 hours per weeks or eight hours per day on average.

In case of specific circumstances, the extended working hours will not exceed 3 hours per day and 36 hours in total per month (*Article 41 of the Labor Law*). The juvenile workers (16-18 years old) should not be involved in overtime working.

Rest Breaks

Article 38 of the Labor Law specifies that the employer should guarantee that workers have at least one day off in a week.

Leaves

A system of annual leave with pay will be carried out. Workers who have kept working for one year in one unit and more shall be entitled to annual leave with pay (*Article 45 of the Labor Law*).

If a worker works with one unit more than one year and less than 10 years, he or she is entitled to annual leave with 5 days; If a worker works with one unit more than 10 year and less than 20 years, he or she is entitled to is annual leave with 10 days; If a worker works with one unit more than 20 years, he or she is entitled to is annual leave with 15 days. National statutory holidays and rest days (such as the spring festival, the National day, and the international Labor Day) are not counted as annual leaves. Leave does not include a period of temporary disability, and maternity leave.

After childbirth, the female workers shall be entitled to no less than ninety days of maternity leaves with pay.

Overtime Working

Working hours might be extended due to the requirements of its production or business after consultation with the trade union and workers, but the extended working hour for a day shall generally not exceed three hours; if such extension is called for due to special reasons, the extended hours shall not exceed three hours a day under the condition that the health of workers is guaranteed. However, the total extension in a month shall not exceed thirty-six hours (*Article 41 of the Labor Law*)

The workers should be paid higher wages than those for normal working hours under any of the following circumstances (*Article 44 of the Labor Law*):

- To pay no less than 150 percent of the normal wages if the extension of working hours is arranged;
- b. To pay no less than 200 percent of the normal wages if the extended hours are arranged on days of rest and no deferred rest can be taken; and,
- To pay no less than 300 percent of the normal wages if the extended hours are arranged on statutory holidays.

Labor Disputes

The ***Labor Law of PRC*** includes provisions that allow workers to resolve disputes in cases where there is a disagreement between the employer and the employee over the essential terms and conditions of a labor agreement or other aspects of work.

The well-developed mediation system covers labor disputes through an enterprise committee under the official trade union system. Workers may also directly lodge a complaint through the labor bureau.

Article 79 of Labor law stipulated that: Where a labor dispute takes place, the parties involved may apply to the labor dispute mediation committee of their unit for mediation; if the mediation fails and one of the parties requests for arbitration, that party may apply to the labor dispute arbitration committee for arbitration. Either party may also directly apply

to the labor dispute arbitration committee for arbitration. If one of the parties is not satisfied with the adjudication of arbitration, the party may bring the case to a court.

In addition, a labor dispute mediation committee could be established inside the enterprise. The committee shall be composed of representatives of the staff and workers, representatives of the enterprise, and representatives of the trade union. The chairman of the committee shall be held a representative of the trade union. Agreements reached on labor disputes through mediation shall be implemented by the parties involved (*Article 80 of the Labor Law*).

5. Brief Overview of Labor Legislation: Occupational Health and Safety

In PRC, there are over one hundred technical specifications and standards for prevention and control of occupational safety and diseases under the *Labor Law* system. These technical specifications and standards are developed based on the industry best practice or updated toward the industry best practice, i.e. WHO, and relevant technical codes/norms of EU or USA, and the requirements of the International Labor Conventions²³. These technical specifications and standards become compulsory to apply in the design and operation of the facilities.

The *Labor Law* requires the employer must establish a complete system for occupational health and safety and strictly apply all the relevant occupational health and safety measures and standard and provide training on occupational health and safety to employees.

The *Labor Contract Law* explicitly requires that: the employer shall provide the information to the workers at the beginning of the working relationship on the duties, working conditions, working place, occupational hazards, status of occupational safety and health facilities, wage, and other information if the workers request. The employer should get agreement with the workers before any change of the contract.

In terms of the *Labor Law*, the employer must establish and perfect the system for occupational safety and health, strictly implement the rules and standards of the State on occupational safety and health, educate workers on occupational safety and health, prevent accidents in the process of work, and reduce occupational hazards. Facilities of occupational safety and health must meet the standards stipulated by the State. The employer must provide workers with occupational safety and health conditions conforming to the provisions of the State and necessary Articles of Labor protection and providing regular health examination for workers engaged in work with occupational hazards. Workers to be engaged in specialized operations must receive specialized training and acquire qualifications for such special operations. Moreover, workers have the right to refuse to operate if the management personnel of the employer command the operation in violation of rules and regulations or force workers to run risks in operation; Workers shall have the right to criticize, report or file charges against the acts endangering the safety of their life and health.

The special protection for female and juvenile workers (16- 18 years old) shall be provided. Prohibition of engagement in work down the pit of mines and Grade IV physical labor intensity for female workers, protections for female workers during menstrual period,

pregnancy and breast-feeding are specified. No juvenile workers shall be arranged to engage in work down the pit of mines, work that is poisonous or harmful, work with Grade IV physical labor intensity as stipulated by the State, or other work that they should avoid. Regular physical examinations to juvenile workers should be provided by the employer

6. Responsible Staff

This section identifies the functions and/or individuals within the subproject responsible for (as relevant):

- *Engagement and management of project workers*
- *Engagement and management of contractors/subcontractors*
- *Occupational health and safety (OHS)*
- *Training of workers*
- *Addressing worker grievances*

The following tentative description can be customized to the specific context of a subproject.

CPMO will responsible for operational supervision of a subproject, to manage environment and social risks of a subproject. An E&S focal point will be appointed in each CPMO, with the support of external consultant (when needed), for daily risk communication and implementation support for a subproject.

At subproject level, the sub-borrowers will ensure sound performances on labor and working conditions in the subproject. The sub-borrowers will assign a focal staff (normally the HR specialist) to oversee labor and safety performance on a daily basis and report its social performance to the CPMO on routine basis (e.g. semi-annually). CPMO's E&S specialist will conduct onsite check and verification of potential labor risks, with the assistance of the external consultant (when needed).

The sub-borrowers will be responsible for the following:

- Designate a qualified staff to manage the direct workers and contractor performance;
- Develop and implement this labor management procedure to direct workers;
- Ensure that contractor(s) responsible for the construction of subproject and prepare their labor management procedure, in compliance with this labor management procedure, and occupational health and safety plan;
- Monitor that the contractor are meeting obligations towards contracted workers as included in the General Conditions of Contract the SECAP Standard Bidding Documents, and in alignment with Standard 5 and the Labor Law of China;

- Monitor implementation of contractors' labor management procedures;
- Monitor that occupational health and safety standards are met at work places in line with national occupational health and safety legislation;
- Monitor training of the project workers;
- Ensure that the grievance mechanism for subproject workers is established and monitor its implementation; and
- Monitor and require the relevant primary supplier to remedy the potential risks of child labor, forced labor and serious safety issues in relation to the primary supply workers (if any).

The contractor(s) will be responsible for the following:

Prepare and implement subproject specific labor management procedure, occupational health and safety (OHS) plans;

- Develop labor management procedure and occupational health and safety plan. These procedures and plans will be submitted to sub-borrowers for review and approval;
 - Maintain records of recruitment and employment process of contracted workers;
- Communicate clearly job description and employment conditions to contracted workers;
- Develop, and implement workers' grievance mechanism and address the grievance received from the contracted workers;
- Have a system for regular review and reporting on labor, and occupational safety and health performance;
- Deliver regular induction (including social induction) and HSE training to employees;
- Ensure that all contractor workers understand and sign the working requirements prior to the commencement of works;
- After the bidding process is completed and the contractor(s) are known, this labor management procedure can be updated to include additional details about companies, as necessary.

7. Policies and Procedures

This section sets out information on OHS, reporting and monitoring and other general project policies. Where relevant, it identifies applicable national legislation. If relevant, this section will outline how to address significant safety risks and risks of forced labor.

As required by China's Labor Law, all enterprises in China are required to establish a labor management system, polices or procedure, although the content may vary a bit in terms of breadth and in-depth for differing types and sizes of enterprises. Once a subproject is identified and Standard 5 is confirmed relevant, this section will list the labor management procedures, policies and systems established by the sub-borrower. A comparative analysis will be carried out to identify the gaps against PRC's labor regulations, and the requirements of Standard 5. Supplementary procedures will be developed in this section to bring the sub-borrower's labor management polices and procedures in alignment with both PRC's regulations and standards as well as the requirements of Standard 5.

Once significant risks of forced labor or safety risks are identified and assessed for a subproject, this section will outline the mitigation measures to address the risks and the responsible parties.

Regarding monitoring and reporting, the sub-borrower will establish a procedure to extend its periodic supervision to cover contractor's OHS performance at regular intervals. These supervisions will cover compliance status, accidents, recommendations, and progress of ongoing corrective actions. The sub-borrowers will include in the contract(s) as requirement for contractors to report on issues such as number of accidents rates, severity rates, number of recurring non-compliances, fatalities and serious injuries; and penalties for non-completion.

The sub-borrowers will inform the CPMO promptly about any incident, accident or violation related to the subproject which has, or is likely to have a significant adverse effect on the environment, the affected communities, the public or workers (labor, health and safety, or security incident, accident or circumstance) as soon as reasonably practicable, but no later than five calendar days after the occurrence of the event.

As part of the periodic reporting on subproject implementation progress, the sub-borrowers are required to report to CPMO about the performances on labor and working conditions related to direct workers, contracted workers and primary supply workers (if relevant).

8. Age of Employment

The Labor Law of PRC, in its 2018 version, defines minimum working age at 16, and requires specific protection for juvenile workers from 16 to 18. Hiring child labor under 16 is forbidden, which is more stringent than the requirements of Standard 5.

China's Labor Law (2018) and Regulation on Special Protection for Juvenile Workers (1994) prohibits juvenile workers to work in a number of hazardous positions such as mining, in hazardous or toxic circumstance, or jobs with certain level of working intensity. The sub-borrowers should ensure that the juvenile workers (if any) should not involve in any of the positions prohibited by the Regulation on Special Protection for Juvenile Workers (1994). No night shift or overtime working should be arranged for a juvenile worker. All the juvenile workers should be registered with the local labor authority. A health examination will be carried out for a juvenile worker before onboarding, which will be carried regularly on a six-month basis until he/she reaches 18 years old.

The sub-borrowers as well as its contractor(s) and primary suppliers(s) are required to verify the identify and age of all workers to assure no child labor will be employed or engaged with the subproject. This will require workers to provide official documentation, which could include a birth certificate, national identification card, or medical or school record.

If a child under the minimum age is discovered working on the project, measures will be taken to immediately terminate the employment or engagement of the child in a responsible manner, considering the best interest of the child.

9. Terms and Conditions

As shown in legal review (Section 4 in this template), China has established very comprehensive regulations regarding terms and conditions for a labor contract, which are deemed in alignment with relevant requirements of Standard 5. The employer should sign a labor contract in writing with an employee. The labor contract should meet cover the basic terms and conditions, including the term of specific job positions, work content and place of work, work time and rest time, labor remuneration, bonus and social insurances, labor protection, labor conditions and protection against occupational hazards, and specified economic compensation. The content of a labor contract should be reached through prior consensus between the employer and an employee, without any violation against China's labor related regulations and the requirements of STANDARD 5.

The contractors' labor management procedure will set out terms and conditions for the contracted workers. These terms and conditions will be in alignment, at minimum, with this labor management procedure.

10. Grievance Mechanism

Currently, subproject enterprise is unknown. Therefore, whether subproject enterprise has a grievance mechanism in place or not cannot be identified. Anyway, subproject enterprise will develop and implement a grievance mechanism for workers to address workplace concerns. This grievance mechanism for direct workers will be established. In addition, subproject will require contractors to develop and implement a grievance mechanism for their workforce prior to the construction commencement.

The construction contractors will prepare their labor management procedure before subproject construction, which will also include detailed description of the workers grievance mechanism. The workers grievance mechanism will include:

- A procedure to receive grievances such as comment/complaint form, suggestion boxes, email, a telephone hotline;
- Stipulated timeframes to respond to grievances;
- A register to record and track the timely resolution of grievances;
- A responsible unit to receive, record and track resolution of grievances.

The focal staff of subproject enterprise will monitor the contractors' recording and resolution of grievances, and report these to CPMO in their monthly progress reports. The process will also be monitored by the CPMO.

The workers grievance mechanism will be described in staff induction trainings, which will be provided to all project workers. The mechanism will be based on the following principles:

- The process will be transparent and allow workers to express their concerns and file grievances.
- There will be no discrimination against those who express grievances and any grievances will be treated confidentially.
- Anonymous grievances will be treated equally as other grievances, whose origin is known.
- Grievances will be seriously treated and timely and appropriate action in response will be taken.

Information about the existence of the grievance mechanism will be readily available to all project workers (direct and contracted) through subproject website, staff meetings, and other means as needed.

The subproject workers' grievance mechanism will not prevent workers to use conciliation procedure provided in the Labor Law of PRC. The basic procedures are:

Stage 1: The party that asks for arbitration shall file a written application to the labor dispute arbitration committee within 60 days starting from the date of the occurrence of labor dispute. In general, the arbitration committee shall produce a ruling within 60 days after receiving the application. The parties involved shall implement arbitration rulings if they do not have any objections to these rulings. Labor dispute arbitration committees shall be composed of the representatives of labor administrative departments, representatives from trade unions at the same level, and the employer representatives. The chairmanship of such a committee shall be held by the representative of a labor administrative department.

Stage 2: If any of the parties involved in a labor dispute has objections to an arbitration ruling, it can raise a lawsuit with the People's Court within 15 days after receiving the ruling.

11. Contractor Management

The Borrower will require that all contractors engaged on the project operate in a manner consistent with the requirements of the ESSs, including the specific requirements set out in the ESCP. Contractor management is carried out through the process of procurement. The procurement documents of a subproject in compliance with World Bank requirements will include labor and occupational, health and safety requirements.

As part of the process to select construction contractors who will engage contracted workers, the sub-borrowers may review the following information:

- Information in public records, for example, corporate registers and public documents relating to violations of applicable labor law, including reports from labor inspectorates and other enforcement bodies;
- Business licenses, registrations, permits, and approvals;
- Documents relating to a labor management system, including OHS issues, for example, labor management procedures;
- Identification of labor management, safety, and health personnel, their qualifications, and certifications;
- Workers' certifications/permits/training to perform required work;
- Records of safety and health violations, and responses;
- Accident and fatality records and notifications to authorities;
- Records of legally required worker benefits and proof of workers' enrollment in the related programs;
- Worker payroll records, including hours worked and pay received;
- Identification of safety committee members and records of meetings; and
- Copies of previous contracts with contractors and suppliers, showing inclusion of provisions and terms reflecting STANDARD 5.

Please note, any contractor using child labor or with historic child labor use should NOT be eligible for bidding. The contracts with selected contractors will include provisions related to labor and occupational health and safety, as set out in STANDARD 5 and China's regulations.

The sub-borrower will manage and monitor the performance of contractors in relation to contracted workers, focusing on compliance by contractors with their contractual agreements (obligations, representations, and warranties). This may include periodic audits, inspections, and/or spot checks of project locations or work sites and/or of labor management records and reports compiled by contractors. Contractors' labor management records and reports may include:

- A representative sample of employment contracts or arrangements between third parties and contracted workers;
- Records relating to grievances received and their resolution;
- Reports relating to safety inspections, including fatalities and incidents and implementation of corrective actions;
- Records relating to incidents of non-compliance with national law; and

- Records of training provided for contracted workers to explain labor and working conditions and OHS for the subproject.

The contractor's environmental and social performances should be reported as part of the periodic subproject implementation progress report to CPMO.

12.Primary Supply Workers

Once subproject is selected, the sub-borrowers, with the support of CPMO and with a reference to the Table 2, Table 3 and Table 4 above, should identify the relevance of primary supplier(s), define the size of primary supply workers and screen the significant risks and impacts, inter alia focusing on the risks of forced labor, child labor and serious safety issues.

Where a significant risk of child or forced labor or serious safety issues in relation to primary suppliers has been identified, this section sets out the procedure for monitoring and reporting on primary supply workers, which may primarily include (but not limited to):

- As part of the social impact assessment for a subproject, the sub-borrower will assess magnitude of significant risks related to primary supply workers and establish appropriate mitigation measures in the social management plan;
- Among other provisions, the social actions to manage the risks associated with primary supply workers should be incorporated into the terms of procurement contract(s), which requires commitment from the primary supplier to implement;
- The sub-borrower will follow with its primary supplier(s) to ensure the social actions are well implemented and report the performance of primary supplier as part of its periodic subproject implementation report to CPMO;

Where remedy is not possible to an identified risk, the sub-borrower will, within a reasonable period, shift the primary suppliers to suppliers that can demonstrate that they are meeting the relevant requirements of STANDARD 5; and

- If the subproject is involving a higher-risk primary supplier or there are recurring social issues related to primary supply workers, etc., CPMO will supervise the social performances of the specific primary suppliers

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Hunan Green Development Project

Project Design Report

Annex: Annex 12 Types Of Benefits Generated Component 2

Mission Dates: 21/10/2023-04/11/2023

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Project No. 2000003847

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Asia and the Pacific Division
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Annex 12: Estimation of Benefits & Beneficiaries

Beneficiary Table-HGDP

Component 1	Unit	Enterprises	people	Men	Women	Youth
Training in climate adaptive production techniques ^{ijk}	people		35 271	14 109	21 163	10 581
Provision of improved inputs for production (seeds, saplings, fertiliser, etc) ^l	people		18 850	7 540	11 310	5 655
Access to improved infrastructure (irrigation, passage ways) ^{mjk}	people		19 511	7 805	11 707	3 902
Increased income from renting land ^{nq}	people		7 456	3 728	3 728	
Increased income from divided income through share in production ^{of}	people		7 456	3 728	3 728	
Increased income from sale of produce ^{ps}	people		4 483	2 124	2 359	2 241
Increased income from on-farm wage labour th	people		15 760	6 304	9 456	6 304
Increased awareness of carbon sequestration, monitoring and accounting methods	people		100	30	70	50
Component 2						
Increased production and revenues from infrastructure investments	Enterprises	8				
Number of enterprises that diversify their products	Enterprises	8				
Increased employment in agro-enterprises ^t	people		2400	960	1440	1440
Increased sale of produce of smallholders due to enhanced processing capacity ^u	people		5 790	2 316	3474	2316
Increased sale of produces of other smallholders non-supported in component 1 due to enhanced processing capacity			8 500	3 400	5 100	2 550
Total HHs (Exclud			43 771	17 509	26 263	13 131
					60%	30%

Key Assumptions	Unit		43 771
Number of smallholders participating in the production activities based on average landholding of 5 mus per HH	HHs		11 580
Number of smallholder participating through their cooperatives assuming on average landholding of 5 mus per hh	HHs		7 270
Number of cooperatives participating based on the assumption that around 22 hhs participate in each cooperative	coopertaives		330
Individual holders with larger holding participating based on the assumption that on average they own 40 mu each,	HHs		661
Land holding managed by private enterprises	mu		67 200
Number of people employed on enterprise land based on the assumption that 1 person is employed to manage 10 mu each for 3-year term	people		13 440
Land holding managed by state owned farm enterprises	mu		11 600
Number of people employed on enterprise land based on the assumption that 1 person is employed to manage 10 mu, for 3 year term	people		2 320
Assuming that all holders of land and the workers on the plantation lands get trained			
Assuming that 60% of those trained are women			60%
Assuming that 30% of those trained are young			30%
These agriculture inputs are only counted for smallholders			
Assuming all landholders benefit from infrastructure investments			
Assuming that 33% of smallholders rent their land of which 50% benefited are women	3 821		50%
Assuming that 33% of smallholders receive dividend income through share in production of which 50% benefited are women	3 821		50%
Assuming that 33% of smallholders receive increased income from increased production of which 60% are women	3 821		60%
Assuming that 50% of smallholders in cooperatives rent their land of which 50% are women	3 635		50%
Assuming that 50% of smallholders in cooperatives receive dividend income of which 50% are women	3 635		50%
Assuming all large holders increase their income from production of which only 10% are women	661.25		10%
Assupmtion: each of all 8 enterprises will increase 300 employments.			
Assumption: 50% of Number of smallholders participating in the production activities based on average landholding of 5 mus per HH will increase sale of produce due to enhanced processing capacity	5 790		
Assumption: Number of smallholders not supported under C1 might still increase their sale for processing as result of enhanced processing capacity	8 500		8 500

Annex Table 8.1 Land ownership of project area - Lending and operating entities

No.	County		Lending entities	Component 1: production base											
				Sub-total		State-owned forest		Private enterprises		Cooperatives		individule Large-		individule Small-	
				Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)
Total				199 500	1	11 600	0	67 200	0	36 350	0	26 450	0	57 900	0
1	Zhuzhou City	Yanling	Qingshigang State-owned Forest Farm	29 000	1	11 600	0	8 700	0	4 350	0	1 450	0	2 900	0
2	Hengyang City	Hengshan	Hengshan County Urban and Rural Construction Investment Co., Ltd	20 000	1			4 000	0	8 000	0	5 000	0	3 000	0
3	Yueyang City	Pingjiang	Pingjiang County Mijiang Yuanshan Tea Oil Co., Ltd. and Hunan Shanrun Oil Tea Technology Development Co., Ltd	10 000	1			10 000	1						
4	Yiyang City	Heshan	Heshan District Shanxiang Jubian Agricultural Development Co., Ltd	30 000	1			9 000	0	9 000	0	6 000	0	6 000	0
5	Yiyang City	Taojiang	Taojiang County Zhuxiang State owned Assets Operation Co., Ltd	40 000	1							4 000	0	36 000	1
6	Huaihua City	Yuanling	Yuanling County Forest Resources Collection and Storage Co., Ltd	50 000	1			15 000	0	15 000	0	10 000	0	10 000	0
7	Huaihua City	Xupu	Xupu County Xingxiang Forestry Co., Ltd	20 500	1			20 500	1						

Summary Tables

Component 1	people	Men	Women	Youth	(%) Women	(% Youth)
Training in climate adaptive production techniques	35 271	14 109	21 163	10 581	60%	30%
Provision of improved inputs for production (seeds, saplings, fertiliser, etc)	18 850	7 540	11 310	5 655	60%	30%
Access to improved infrastructure (irrigation, passage ways)	19 511	7 805	11 707	3 902	60%	20%
Increased income from renting land	7 456	3 728	3 728		50%	0%
Increased income from divided income through share in production	7 456	3 728	3 728		50%	0%
Increased income from sale of produce	4 483	2 124	2 359	2 241	53%	50%
Increased income from on-farm wage labour	15 760	6 304	9 456	6 304	60%	40%
Increased awareness of carbon sequestration, monitoring and accounting methods	100	30	70	50	70%	50%
Component 2						
Increased employment in agro-enterprises	2400	960	1440	1440	60%	60%
Increased sale of produce of smallholders due to enhanced processing capacity	5 790	2 316	3474	2316	60%	40%
Increased sale of produces of other smallholders non-supported in component 1 due to enhanced processing capacity	8 500	3 400	5 100	2 550	60%	30%
Total avoiding double counting	43 771	17 509	26 263	13 131	60%	30%
Rounded to	43 500	17 000	26 000	13 000	60%	30%
			0.4	0.6		0.30
	people	128 325				
	HH Size	2.95				

Sub-total		State-owned forest farm		Private enterprises		Cooperatives		individule Large-		individule Small-	
Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)	Area (mu)	Percent (%)
199500	100.00%	11600	5.81%	67200	33.68%	36350	18.22%	26450	13.26%	57900	29.02%

State-owned forest farm

	Area	(%)
State owned Forest Farm	11600	6%
Private enterprises	67200	34%
Coperatives	36350	18%
Individual Large Holders	26450	13%
Individual Small Holders	57900	29%
	199500	100%

No.	County		Lending entities
Total			
1	Zhuzhou City	Yanling	Qingshigang State-owned Forest Farm
2	Hengyang City	Hengshan	Hengshan County Urban and Rural Construction Investment Co., Ltd
3	Yueyang City	Pingjiang	Pingjiang County Mijiang Yuanshan Tea Oil Co., Ltd. and Hunan Shanrun Oil Tea Technology Development Co., Ltd
4	Yiyang City	Heshan	Heshan District Shanxiang Jubian Agricultural Development Co., Ltd
5	Yiyang City	Taojiang	Taojiang County Zhuxiang State owned Assets Operation Co., Ltd
6	Huaihua City	Yuanling	Yuanling County Forest Resources Collection and Storage Co., Ltd
7	Huaihua City	Xupu	Xupu County Xingxiang Forestry Co., Ltd

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Hunan Green Development Project

Project Design Report

Annex: Annex 13 The Selected Value Chains

Mission Dates: 21/10/2023-04/11/2023

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Annex 13: The Selected Value Chains

A note which describes the three value chains and gives a better understanding of their scope, the size of the market and its dynamics, the role of the smallholders and their cooperatives in the process and the strength of the enterprises and their profile on Hunan. The support provided by the various agencies, forestry bureau, county governments and other departments.

The crops in the three value chains were selected by the government in alignment with the Rural Revitalization Strategy and the carbon emission commitments of the country including the gradual process to replace one-time use plastics products with bamboo products. They are also not listed in IFAD's environmental and social exclusion list.

A. The Bamboo Value Chain

Bamboo value chain

The bamboo value chain can be divided into four main stages:

- Production: This stage involves bamboo cultivation, harvesting, and primary processing.
- Manufacturing: This stage involves the production of bamboo products, such as furniture, flooring, and shoot.
- Distribution: This stage involves the transportation and sale of bamboo products to consumers.
- Consumption: This stage involves the use of bamboo products by consumers.

The bamboo value chain is a complex and interconnected system. The success of each stage depends on the success of the others. For example, if the production stage is not efficient, then the manufacturing stage will be affected. Similarly, if the distribution stage is not effective, then the consumption stage will be affected.

The bamboo value chain is a sustainable value chain. Bamboo is a renewable resource, and it can be grown without harming the environment. This makes bamboo a good choice for a number of products, including furniture, flooring, and shoot etc.

The bamboo value chain is a growing value chain. The demand for bamboo products is increasing, and this is driving the growth of the bamboo value chain. This growth is expected to continue in the future.

Hunan project counties are mainly Moso bamboo, Moso bamboo is a tall, fast-growing grass plant, its growth cycle is short, 4-5 years bamboo culms can be harvested, and the timber growth cycle is generally more than 10 years, and bamboo shoots grow new bamboo every year. With the strengthening of people's awareness of environmental protection and the introduction of the government's "ban on logging", there is a gap between supply and demand in China's timber market under the condition that the demand for timber market continues to increase. At this time, bamboo with short mature cycle and high economic value is the best alternative to solve the gap between supply and demand of wood.

In the industrial chain of China's bamboo industry, the upstream is raw materials and bamboo shoots for various parts of bamboo; The midstream involves the processing of thousands of varieties of bamboo shoot food, bamboo products, bamboo building materials, bamboo fiber, bamboo extract items and other fields; The downstream is the application field of bamboo products, and bamboo can be used to make tableware, furniture, building materials, food, etc.

Scope: The bamboo value chain in Hunan is extensive, covering the production, processing, and marketing of bamboo products. The province has a long history of bamboo cultivation, and is home to a wide variety of bamboo species.

Size of the market: The bamboo market in Hunan is worth an estimated \$10 billion. The market is growing at a rate of around 10% per year, driven by the increasing demand for bamboo products in both domestic and international markets.

Dynamics of the market: The bamboo market in Hunan is characterized by high competition. There are a large number of bamboo producers and processors in the province, and the market is constantly evolving.

Role of smallholders and their cooperatives: Smallholders play a vital role in the bamboo value chain in Hunan. They are responsible for the production of bamboo, which is the most important step in the value chain. The cooperatives provide the smallholders with access to training, inputs, and markets. They also help to improve the quality of the bamboo and the working conditions of the smallholders.

Strength of the enterprises and their profile on Hunan: The bamboo enterprises in Hunan are typically small and medium-sized businesses. They are responsible for the processing, manufacturing, and marketing of bamboo products. The enterprises are facing a number of challenges, including the high cost of inputs, the lack of access to finance, and the competition from foreign companies. However, the enterprises are also benefiting from the growing demand for bamboo products, and are increasingly investing in research and development.

Support provided by the forestry bureau, county governments and other departments: The government of Hunan is providing support to the bamboo value chain in a number of ways. The forestry bureau is providing technical assistance to the smallholders. The county governments are providing financial support to the cooperatives. The other departments are providing marketing assistance to the enterprises.

According to the business objectives, the Moso bamboo plantation management is divided into bamboo plantation for timber, bamboo plantation for bamboo shoot and bamboo plantation for both bamboo timber and bamboo shoot.

Bottlenecks and challenges:

1. Bamboo plantation lacks management and management, is seriously barren, there are many old and small bamboos, few large diameter bamboo, low bamboo yield, small area of bamboo plantation per bamboo farmer, lack of large-scale operation;
2. Bamboo plantation harvesting is currently mainly manual, due to the lack of forest roads and working roads, bamboo is difficult to go down the mountain;
3. Low degree of automation of bamboo processing mechanization;
4. Bamboo shoots plantation lacks water and fertilizer integration facilities, and bamboo shoots are also difficult to go down the mountain due to the lack of forest roads and work roads.

It is suggested followings steps to address the bottlenecks and challenges:

- 1) Improve the level of bamboo plantation cultivation and management. Encourage and guide bamboo processing enterprises to build targeted fast-growing and abundant bamboo plantation bases, establish a scientific concept of bamboo plantation management, increase the intensity of targeted cultivation and management of bamboo plantation resources, rely on scientific and technological progress, popularize advanced technology, and improve output and quality.
- 2) Promote the professionalization of bamboo harvesting. The traditional way of harvesting and transportation of bamboo is carried out by bamboo farmers in a decentralized and independent manner, which is inefficient, costly and greatly affected by the weather. In order to reduce labor intensity and meet the needs of large-scale industrial production, it is necessary to build forest roads and work roads, and specialized and mechanized bamboo plantation

harvesting, storage and transportation companies should be established to improve efficiency, reduce costs, and solve the contradiction in the supply of bamboo resources. Therefore, to innovate the new model of combining "cultivation, harvesting and transportation", it is necessary to comprehensively consider bamboo plantation cultivation, harvesting machinery and logging roads, and organically combine the three. Bamboo plantations for bamboo shoots require the construction of integrated water and fertilizer facilities, forest roads or bamboo shoot transport tracks.

3) Establish an intensive and large-scale bamboo primary processing industrial base near the bamboo plantation. At present, there are many kinds of bamboo primary processing units, bamboo strips, bamboo consumption, bamboo bundles, bamboo silk, bamboo chips, as well as the value of bamboo upper, middle, lower and internal, middle and external positions have not been maximized, and most of the bamboo processing bases are scattered, and the transportation radius is large, so it is necessary to promote the establishment of an intensive and large-scale bamboo primary processing industrial base. In this base, the precise utilization, efficient utilization and high-value utilization of different components and parts of bamboo are carried out in an orderly manner, and the optimal matching of bamboo product unit form and material properties, the best combination of bamboo processing waste and resources, environment and energy efficiency, the dynamic and harmonious balance of bamboo processing unit scale and process technology and market demand are carried out in an orderly manner, and a closed-loop business model of cleaning, saving and efficiency of the production process of bamboo primary processing base is realized.

4) Establish a new networked sales model. Break through the traditional point-to-point sales model of bamboo products, use live streaming goods, e-commerce platforms, video accounts, traffic push and other network marketing, and combine with offline experience marketing, differentiated marketing and other methods to create well-known bamboo brands, bamboo trademarks and bamboo cultural characteristic goods and characteristic experiences, and adapt to new sales markets.

The annual primary processing capacity of the bamboo culm point is 10,000 tons, and the investment is about 1 million yuan. The annual processing capacity of the bamboo shoot primary processing point is 200 tons, and the investment is about 800,000 yuan.

B. Oil tea Camelia

Oil tea camelia is a pure natural high-grade edible vegetable oil extracted from the mature seeds of ordinary camellia sinensis plants of the camellia family, with golden or light yellow color, pure quality, clear and transparent, fragrant smell and pure taste.

Oil tea camelia has high comprehensive utilization value. Oil tea camelia is the most important product of camellia, known as "longevity oil", high nutritional value, unsaturated fatty acid content is higher than peanut oil and rapeseed oil, up to 93%. Oil tea camelia can effectively prevent and treat cardiovascular and cerebrovascular diseases, and is a healthy high-grade edible vegetable oil recognized and promoted by FAO. In addition to edible, oil tea camelia is also used in cosmetics, medicine and other industries. After oil extraction, tea camelia wither, oil tea camelia shell and other residues and their extracts can also be developed and utilized, which can be used as culture materials for edible fungi, pond cleaning agents, activated carbon, raw materials for the production of furfural and xylitol, gum, etc. The whole body of Oil tea camelia is a treasure, and the prospects for comprehensive development and utilization are very broad. Oil tea camelia is known as "hardcore crop", which benefits from planting for many years at a time, and its stable yield and harvest period can reach several decades, which is of great significance for promoting forest farmers in mountainous areas to increase income, helping poverty alleviation and rural revitalization, improving the ecological environment of mountain areas and maintaining national grain and oil security.

Oil tea camelia value chain

The oil tea camelia value chain is a series of activities that involve the production, processing, and marketing of oil tea camelia. The value chain can be divided into the following stages:

- Production: This stage involves the cultivation, harvesting, and processing of oil tea camelia fruits.
- Extraction: This stage involves the extraction of oil from the oil tea camelia fruits.
- Refining: This stage involves the refining of the extracted oil to remove impurities.
- Packaging: This stage involves the packaging of the refined oil for sale.
- Marketing: This stage involves the marketing and sale of the oil tea camelia to consumers.

The oil tea camelia value chain is a complex and interconnected system. The success of each stage depends on the success of the others. For example, if the production stage is not efficient, then the extraction stage will be affected. Similarly, if the marketing stage is not effective, then the consumption stage will be affected.

The oil tea camelia value chain is a sustainable value chain. Oil tea camelia is a renewable resource, and it can be grown without harming the environment. This makes oil tea camelia a good choice for a number of products, including cosmetics, food, and medicine.

The oil tea camelia value chain is a growing value chain. The demand for oil tea camelia is increasing, and this is driving the growth of the oil tea camelia value chain. This growth is expected to continue in the future.

Scope: The oil tea camelia value chain in Hunan is relatively new, but it is growing rapidly. The province is home to a large number of tea camelia trees, and the oil extracted from the seeds of these trees is a valuable commodity.

Size of the market: In the national oil tea camelia industry map, Hunan firmly occupies the top position. Since the anchoring of the 100 billion Yuan industrial planning target in 2018, the development momentum of Hunan oil tea camelia industry has been strong, the total area of oil tea camelia forest has reached 22.775 million mu, the annual output of oil tea camelia is 413,500 tons, and the comprehensive output value is 68.8 billion yuan, and the three indicators rank first in the country.

Dynamics of the market: The oil tea camelia market in Hunan is characterized by high potential for growth. The market is still relatively young, and there is a lot of room for expansion. However, the market is also facing a number of challenges, including the lack of awareness of oil tea camelia among consumers, and the competition from other vegetable oils.

Role of smallholders and their cooperatives: Smallholders play a vital role in the oil tea camelia value chain in Hunan. They are responsible for the cultivation of tea camelia trees, which is the most important step in the value chain. The cooperatives provide the smallholders with access to training, inputs, and markets. They also help to improve the quality of the oil tea camelia and the working conditions of the smallholders.

Strength of the enterprises and their profile on Hunan: The oil tea camelia enterprises in Hunan are typically small and medium-sized businesses. They are responsible for the processing, manufacturing, and marketing of oil tea camelia products. The enterprises are facing a number of challenges, including the high cost of inputs, the lack of access to finance, and the competition from foreign companies. However, the enterprises are also benefiting from the growing demand for oil tea camelia products, and are increasingly investing in research and development.

Support provided by the forestry bureau, county governments and other departments: The central and Hunan provincial governments are providing support to the oil tea camelia value chain in a number of ways. The forestry bureau is providing technical assistance to the smallholders. The county governments are providing financial support to the cooperatives. The other departments are providing marketing assistance to the enterprises.

Here are some of the challenges facing the oil tea camelia value chain:

Problems in the development of the oil tea camelia industry. Newly planted oil tea camelia plantations can only bear fruit in 3 to 5 years, and the investment is large, which is an important factor in the lack of enthusiasm of forest farmers.

1. Oil tea camelia-cultivation management technology is lacking and not in place, and the yield is low. The lack and implementation of cultivation management technology and low yield of are reflected in the lack of afforestation land selection, inaccurate selection of good seeds, improper variety allocation, unreasonable density control, generally high afforestation density, and planters are reluctant to thinning in the peak fruit period. Extensive management in the later stage, nutritional shortage or imbalance in the growth period of oil tea camelia; Lack of pruning technology for different tree shapes, resulting in ventilation and light transmission, poor resistance and low fruit setting rate. In addition, many enterprises do not have enough awareness of the oil tea camelia industry, blindly follow the trend, large-scale planting, coupled with the lack of professional and technical support, financial and management costs are too high, negative income growth, capital chain breakage, oil tea camelia plantation is abandoned in a large area, unmanaged, resulting in low yield.

2. High production and operation costs, weak product market competitiveness. The degree of mechanization of tending and picking of oil tea camelia is low, which requires a lot of manpower labor, high labor cost and low efficiency, which increases the production and operation costs of oil tea camelia. The insufficient output of camellia seeds, the overcapacity of specialized processing, and the insufficient deep processing technology increase the processing cost. Oil tea camelia does not have clear quality standards, quality and safety management and risk prevention system is not perfect, the brand building in the main producing areas is not enough, and the publicity is not in place, coupled with the low utilization rate of oil tea camelia by-products, few high value-added products, single product types, small scale of oil tea camelia processing enterprises, insufficient scientific and technological support capabilities, resulting in weak market competitiveness of oil tea camelia and related products, failing to play a good

driving role in the entire industrial chain. 3. There are few professional scientific and technological service teams for oil tea camelia, and the service system is not perfect. There are few professional scientific and technological service teams in the field of oil tea camelia, which is difficult to meet the scientific and technological support needs of the development of the oil tea camelia industry. The oil tea camelia science and technology service system is not perfect, there is a lack of incentive mechanism, and the enthusiasm of scientific and technological service personnel is not high.

Countermeasures and suggestions for the development of oil tea camelia industry

1. Innovative cultivation management technology. The first is to refine the technology of high-efficiency cultivation and low-yield plantation transformation by region. Comprehensively analyze the causes of low yield and low efficiency, formulate and improve the corresponding transformation technical regulations, and promote the transformation of low-yield and inefficient oil tea camelia plantations in batches and orderly. The second is to establish a high-yield demonstration base to guide operators to operate scientifically. Choose to engage in the selection, cultivation, processing and utilization of oil tea camelia seeds; Through the establishment of high-yield demonstration bases, guide the majority of forest farmers and enterprises to deepen their understanding of the investment benefits and cycles of oil tea camelia operation and development, and avoid large investment risks in the development of oil tea camelia industry; Encourage and support the planting of Chinese medicinal herbs, vegetables and other cash crops in oil tea camelia plantations in accordance with local conditions, so as to effectively improve economic benefits by replacing cultivation with care, and raising growth with short-term cultivation.

2. Strengthen the harvesting, processing and comprehensive utilization of oil tea camelia. The first is to promote the pace of mechanization of the whole industrial chain of oil tea camelia and improve the processing technology. Coordinate and organize oil tea camelia scientific research units and oil tea camelia enterprises to jointly tackle key scientific and technological problems, promote the pace of mechanization of the whole industry chain of oil tea camelia, improve production efficiency, and solve the problems of excessive manpower consumption and production and operation costs in forest land reclamation and harvesting in the tending and management of oil tea camelia forests; Carry out technical research on the efficient utilization of oil tea camelia processing residues, continuously improve processing technology, optimize product quality, expand product categories, and improve the market competitiveness of oil tea camelia products. The second is to formulate product quality standards for oil tea camelia and establish a public service platform for the high-quality development of the oil tea camelia industry. Organize experts to formulate and issue national and local product quality standards for oil tea camelia, and establish and improve the standard system for the production and processing of oil tea camelia. Establish an official public service platform for the high-quality development of the oil tea camelia industry, and provide information on all aspects of the oil tea camelia industry and key technology sharing in the production and operation of oil tea camelia. The third is to strengthen public brand construction and publicity to improve consumers' awareness of the Oil tea camelia brand. The government should focus on supporting and the forestry department to preside over the construction of a public brand of oil tea camelia with characteristics. The government gives certain financial subsidies or preferential policies to key oil tea camelia enterprises to promote their products, encourages the use of mass media such as television and explores new publicity methods to publicize oil tea camelia brands and the nutritional value of oil tea camelia, and improves consumers' awareness of oil tea camelia. Oil tea camelia enterprises can develop cost-effective, different specifications and different grades of oil tea camelia products, and use traditional sales channels such as supermarkets and emerging sales channels such as live streaming to increase oil tea camelia sales.

3. Set up a tea camelia science and technology service team to improve the oil tea camelia technology service system. Establish standardized oil tea camelia science and technology service teams with different levels and functions, and regularly carry out technical guidance and consulting services through on-site training, technical lectures and other forms, so that oil tea camelia growers can effectively master key technologies such as good seedlings and strong seedlings, variety allocation, scientific land selection, reasonable fertilization, plastic pruning, etc., and promote the incremental quality improvement of the oil tea camelia industry; Relying on scientific research institutes, forestry workstations, nurseries, science and technology demonstration bases, etc., to formulate and improve the scientific and technological service system of the oil tea camelia industry. Establish an incentive and reward mechanism.

C. Under-forest economy (Medicinal Plants)

Under-forest economy mainly refers to the under-forest planting, aquaculture, collection industry and forest tourism developed based on forest land resources and forest ecological environment, including both under-forest industry, forest-in-forest industry, and on-forest industry.

The under-forest economy is a new thing that has emerged in the field of agricultural production after the reform of the collective forest rights system, when collective forest land is contracted to households, farmers make full use of forest land, realize that they can get rich without cutting down trees, and scientifically manage forest land. It is an ecological agriculture model that makes full use of the advantages of under-forest land resources and forest shade to engage in three-dimensional composite production and operation such as planting and breeding under the forest, so that agriculture, forestry and animal husbandry can realize resource sharing, complementary advantages, circular coexistence and coordinated development.

Developing the under-forest economy is an urgent need to consolidate the achievements of the reform of the collective forest tenure system and promote green growth, and it is an effective way to increase the output of forest land and increase farmers' income, and obvious results have been achieved. It is necessary to conscientiously sum up experience, plan scientifically, strengthen guidance, actively support, further accelerate the pace of development, ensure that farmers can get rich without cutting down trees, and achieve the reform goal of ecological protection and farmers' benefits.

The growing environment of forest herbs and Chinese medicinal materials is superior, very few have been polluted by pesticides, fertilizers, herbicides, etc., and the air quality is excellent, which has the natural advantage of cultivating green and organic Chinese medicinal materials. The use of forest and grass land resources to produce Chinese medicinal materials, without competing with grain for land, is in line with the national requirements of "non-grain" and "non-agriculture" of cultivated land.

In addition, forest and grass resources are mostly distributed in remote areas and economically underdeveloped areas, and the development of traditional Chinese medicinal materials industry can promote local economic development and consolidate and expand the achievements of poverty alleviation.

The under-forest economy value chain

The under-forest economy value chain is a series of activities that involve the production, processing, and marketing of non-timber forest products (NTFPs). The value chain can be divided into the following stages:

- Harvesting: This stage involves the collection of NTFPs from the forest.
- Processing: This stage involves the cleaning, sorting, and drying of NTFPs.
- Packaging: This stage involves the packaging of NTFPs for sale.
- Marketing: This stage involves the sale of NTFPs to consumers.

The under-forest economy value chain is a complex and interconnected system. The success of each stage depends on the success of the others. For example, if the harvesting stage is not efficient, then the processing stage will be affected. Similarly, if the marketing stage is not effective, then the consumption stage will be affected.

The under-forest economy value chain is a sustainable value chain. NTFPs are renewable resources, and they can be harvested sustainably. This makes NTFPs a good choice for a number of products, including medicinal herbs, mushrooms, poultry etc.

The under-forest economy value chain is a growing value chain. The demand for NTFPs is increasing, and this is driving the growth of the under-forest economy value chain. This growth is expected to continue in the future.

Here are some of the challenges facing the under-forest economy value chain.

The main problems of the local forest and herbal medicine industry are the low degree of industrialization, insufficient capital investment, and bumper harvest. Most forest farmers have little of their own funds and have difficulty accessing bank support. Many operators themselves have not established an accumulation mechanism and lack the ability to bear market risks.

At the same time, the industrialization of forest and herbal Chinese medicinal materials lacks the support of large households and leading enterprises, and has no awareness of scientific operation and large-scale and industrialized operation. The planting of traditional Chinese medicinal materials in forest and grass generally has a single variety, and the promotion and planting rate of fine seeds is low, resulting in low unit yield. In addition, many products lack intensive processing and flow directly to the market, which is low in price, which affects the income of forest farmers.

The basic principle of developing the forest and herbal Chinese medicinal materials industry should be to adhere to the priority of protection and rational utilization. When developing the forest and grass Chinese medicinal materials industry, we should strictly abide by the red line of ecological protection, give priority to the implementation of the cultivation mode with less human interference on the premise of not felling trees, not destroying surface forest vegetation, not changing the use of forest land, and not polluting the environment, strictly prohibit the destruction of forest land, grassland and forest grassland vegetation, and realize the close combination of strict protection and rational utilization, and the organic integration of ecological benefits with economic and social benefits.

At the same time, we should persist in adapting measures to local conditions and developing scientifically. According to the regional climate, soil and water resources conditions of forest and grass resources, take authentic medicinal materials as the main body, select suitable types of medicinal materials, adopt reasonable cultivation mode, scientifically plan the industrial layout, and form a production system of forest and grass Chinese medicinal materials with standardized production, high-quality products and appropriate scale.

Third, we should adhere to market-led and integrated development. Follow the market law, benchmark the market demand, and reasonably determine the variety and scale. Build an industrial chain of Chinese medicinal materials that matches the expansion of fine seeds, planting and processing, warehousing and logistics, and effectively meet the specific needs of the Chinese medicine health industry. We should adhere to green environmental protection and standardize production. Strictly control the use of chemical pesticides, fertilizers and other inputs, strengthen the standardization and management of production technology, processes and links, and ensure the quality and safety of Chinese medicinal materials.

Scope: The under-forest economy value chain in Hunan is vast, covering a wide range of products and services. The province has a rich under-forest ecosystem, which provides a variety of resources that can be used to generate income and create jobs.

Size of the market: The under-forest economy market in Hunan is worth an estimated \$7 billion. The market is growing at a rate of around 15% per year, driven by the increasing demand for under-forest products and services.

Dynamics of the market: The under-forest economy market in Hunan is characterized by high potential for growth. The market is fragmented, with a large number of small-scale producers and processors. There is also a high degree of competition, both within the province and from other regions in China.

The under-forest economy value chain in Hunan is a complex and dynamic system that

includes a wide range of actors, from smallholders to large enterprises. The scope of the value chain is broad, encompassing a variety of products and services, including timber, non-timber forest products (NTFPs), ecotourism, and environmental services.

The size of the market for under-forest products in Hunan is significant. In 2019, the total value of under-forest products in the province was estimated to be over 100 billion yuan. The market is growing rapidly, driven by increasing demand for both timber and NTFPs.

The dynamics of the under-forest economy value chain are complex. The market is fragmented, with a large number of small-scale producers and processors. There is also a high degree of competition, both within the province and from other regions in China.

Smallholders play an important role in the under-forest economy value chain in Hunan. They account for the majority of production and processing of under-forest products. However, smallholders face a number of challenges, including low productivity, limited access to markets, and high transaction costs.

Cooperatives are playing an increasingly important role in the under-forest economy value chain in Hunan. Cooperatives can help smallholders to overcome some of the challenges they face, such as by providing access to markets, training, and financial services.

There are a number of enterprises that are active in the under-forest economy value chain in Hunan. These enterprises range from small-scale processors to large-scale timber companies. The strength of these enterprises varies, but some of them are well-positioned to take advantage of the growing market for under-forest products.

The government plays an important role in supporting the under-forest economy value chain in Hunan. The forestry bureau, county governments, and other departments provide a variety of support services, such as technical assistance, training, and financial assistance.

The under-forest economy value chain in Hunan is a promising sector with the potential to generate significant economic benefits for the province. However, there are a number of challenges that need to be addressed in order to fully realize the potential of this sector. These challenges include increasing productivity, improving market access, and reducing transaction costs.

The government can play a key role in supporting the under-forest economy value chain in Hunan. The government can provide support services to smallholders and cooperatives, promote the development of enterprises, and create an enabling environment for the growth of the sector.

With the right support, the under-forest economy value chain in Hunan has the potential to become a major driver of economic development in the province.

Main modes of the under-forest economy in Hunan

Forest medicine mode. The forest clearing is suitable for interplanting medicinal materials such as honeysuckle, white peony, and banlan root, and the semi-wild cultivation of these medicinal materials is relatively simple to manage.

Forest poultry mode. Planting pasture or retaining naturally growing weeds under fast-growing forests, fencing in the surrounding areas, breeding firewood chickens, geese and other poultry, trees for poultry shade, is a natural "oxygen bar" for poultry, ventilation and cooling, easy to prevent epidemics, very conducive to the growth of poultry, and grazing poultry eat grass and insects do not gnaw bark, manure fertilizes the woodland, and the forest trees form a virtuous biological cycle chain. Establish a poultry house in the forest land to save time, material and shade net, with less investment; Away from the village, no pollution, good environment; Poultry manure fertilizes trees with more nutrients; The poultry products produced by forest land have a good market and high prices, and belong to green pollution-free poultry products.

Forest fungus pattern. Intercropping edible fungi under fast-growing forests is the most effective means to solve large areas of idle understory land. Edible fungi are naturally shade-

loving, and the woodland is ventilated and cool, which provides suitable environmental conditions for the growth of edible fungi, which can reduce production costs, simplify cultivation procedures, increase yield, and provide a broad production space for the development of edible fungus industry, and the waste after edible fungi picking is organic fertilizer for tree growth, killing two birds with one stone.

China

**Hunan Green Development Project
Project Design Report**

Annex: Annex 14 Working Paper On Infrastructure Clean 06122023

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Annex 14: Working Paper on Infrastructure

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I. INTRODUCTION

1. This working paper assesses the current situation of the infrastructure systems in three value chains: bamboo, camellia oleifera and medicinal plants in the targeted area of HGDP, analyzes major constraints, identifies development opportunities, and proposes physical, institutional and technical interventions to develop and improve public and private infrastructure. The information included in this report is based on data and information collected during the Concept Design Mission carried out from 22 Oct. to 4 Nov. 2023, during which selected potential project sites in Taojiang, Hengshan, Yanling county of Hunan were visited providing the opportunity to consult with concerned government departments at provincial, county levels and enterprises; and discuss with potential beneficiary, farmers and business entities.

II. CURRENT SITUATION

a. SUBSECTOR

2. Hunan Province is located in the middle reaches of the Yangtze River, between 108°47' ~ 114°15' east longitude and 24°38' ~ 30°08' north latitude. There are various landforms, including semi-high mountain, low mountain, hill, upland, basin and plain. Hunan Province is a continental subtropical monsoon humid climate, the average annual temperature is 16°C-18°C, the average annual rainfall is between 1200 and 1700 mm, but the rainfall in time and space distribution is very uneven, April to June rainfall usually accounts for 50% to 60% of the annual rainfall, while July to September experiences less rain and drought almost on a yearly basis.

3. Hunan's climate and terrain are suitable for the growth of bamboo and oil tea. The bamboo forest area in Hunan Province is 246,000,000 hectares, accounting for 16% of the country bamboo surface. In 2019, the output value of Hunan's bamboo industry was 32.3 billion yuan, accounting for 10% of the country bamboo output value. The area of oil tea in Hunan Province is 325,500,000 hectares, accounting for 33.5% of the country's total oil tea area. The annual output of camellia oil is 263,000 tons, accounting for 47.5% of the country camellia oil output value.

4. The HGDP Project targets 7 counties, namely Taojiang, Heshan, Pingjiang, Yuanling, Xupu, Shaoyang, Hengshan and Yanling. It aims at supporting the Government in consolidating its achievements in poverty eradication and implementing rural revitalization strategies.

5. The targeted counties have low and middle height mountains and hilly terrain topography, and the average annual precipitation ranges from 1040 mm to 1760 mm. The rainfall mainly occurs from March to June. Underdeveloped infrastructure systems, especially rural roads and water management systems, have been one of the major constraints to local forest and rural development.

6. The terrain, climate, and other basic information of the seven counties in the project area are as follows:

- Taojiang County is located in the north-central part of Hunan, with mountains and hills accounting for 57% of the total area. The average annual precipitation is between 1041 mm and 2255 mm. The planting area of grain is 879,100 mu, and that of rapeseed is 283,900 mu. It has 76,000 hectares of bamboo.

- Heshan District is located in the north-central part of Hunan Province. It is mainly plain and partly hilly. The average annual temperature is 16.9°C, and the average annual rainfall is 1432.8 mm. The precipitation from April to August accounts for 58.9% of the annual rainfall. The sown area of grain is 1.05 million mu, and the planted area of oil crops is 81,000 mu. Forest land accounts for 25% of the total area, and bamboo forest covers an area of 12,700 hectares.

- Pingjiang County is located in the northeast of Hunan Province, with mountains and hills accounting for 84% of the total area. The average annual temperature is 16.8°C. The average annual precipitation is 1450.8 mm. The total sown area of food crops is 6,673,000 hectares, the area of oil crops is 1,665,000 hectares, the area of forest is 303,200 hectares, accounting for 73% of the total land area of the county, the area of bamboo forest is 43,000 hectares, and the area of oil tea trees is 48,600 hectares.

- Yuanling County is located in the northwest of Hunan Province. The mountainous area accounts for 72.7% of the total area. The rain is concentrated and there are many droughts in summer and autumn. The average annual temperature is 16.6°C, and the average annual rainfall is 1440.9 mm. The grain sown area is 44,850 hectares, the county has a forest area of 466600 hectares, and the area of oil tea trees is 8,900 hectares.

- Xupu County is located in the west of Hunan Province, with an average annual temperature of 16.9°C and an average annual precipitation of 1539.1 mm. The grain planting area of the county is 36,480 hectares. The area of forest land is 241,300 hectares, and the area of planting and breeding under forest is 13,300 hectares. There are 88 specialized economic cooperatives in the forest. The area of oil tea in the county is 12,000 hectares, and the area of Chinese medicinal materials is 10,400 hectares.

- Hengshan County is located in the central part of Hunan. Mountains and hills account for about 54% of the total area. The average annual temperature is 17.5°C, and the average annual precipitation is 1400 mm. The county's arable land area is 16,180 hectares, the bamboo forest area is 8,553.3 hectares, and the oil tea forest area is 8,000 hectares.

- Yanling County is located in the southeast of Hunan Province, the mountainous area accounts for 86.9% of the total area. The average annual temperature is between 12.1 and 17.2°C. The average annual precipitation is 1761.5 mm. There is heavy rain in spring and summer, and drought in late summer and autumn. The county's grain planting area is 1,240,000 hectares, and the oil crop planting area is 2,500 hectares. The area of vegetable cultivation is 3200 hectares. Yanling County has 157,000 hectares of forest land, including 26,600 hectares of bamboo, which is one of the key forest areas in Hunan Province. The main forest by-products are bamboo shoots, turpentine, tung oil, tea oil and so on.

7. Benefiting from increased government investment in the past decades, including implementation of the Plan on Poverty Alleviation and Rural Revitalization policy since 2018, local major public infrastructure systems have been largely improved in recent years, especially basic hydraulic engineering, and rural roads connecting administrative villages and townships with external networks. However, the development of village level public infrastructure systems is still lagging behind. The lack of irrigation engineering for cash crop planted in the hills and mountains and production roads in the farm and roads connecting farm and village are the most penalizing for the local economy.

8. Due to under-investment in the past decades, the bamboo, oil tea and medicinal herbs industries are facing the following challenges due to the lack of:

- roads, the transportation costs are high, transportation is happening on foot what is time-consuming and laborious;
- water storage and irrigation facilities make the area/plantations less resilient to climate change and natural disasters. It is estimated that only 1-5% of tree crop acreage in the targeted counties has irrigation facilities, which is far less than agricultural crops;
- technical guidance, the planting and management technology of farmers is not advanced.
- advanced demonstration projects, such as integrated water and fertilizer systems and advanced water and fertilizer management systems
- sufficient workshop, warehouse, etc., seriously limited the production capacity of the processing plant;
- large scale production bases and processing plants, modern technology cannot be adopted, and intensive and large-scale operations cannot be formed. For example, there

is a large area of low-yield oil tea in Huaihua city of Hunan province, the average yield of oil per mu is less than 3 kg. It has seriously affected the enthusiasm of forest farmers.
- industrial skilled workers.

9. Moreover, according to the meteorological monitoring data in the past 50 years, the annual average temperature has risen by 0.8 °. The temperature rise in winter was more obvious in the whole province, increasing by 1.2°C. The uneven precipitation increases, resulting in more drought in the dry season and more rain in the wet season and meteorological disasters such as floods, droughts, strong winds, high temperature and heat waves, hail and haze are becoming more and more severe. In order to enhance climate resilience and effectively deal with these risks, the development and improvement of climate-resilient infrastructure systems in the project area is essential for the development of the targeted value chains.¹

b. RELEVANT INSTITUTIONS AND TECHNICAL SERVICES

10. At the national level, the National Development and Reform Committee (NDRC), State Forestry and Grassland Administration, the Ministries of Water Resources (MOWR), the Ministry of Agriculture and Rural Affairs (MARA), the Ministry of Transport (MOT) are responsible for overall social-economic & forestry development planning, irrigation and water resources management, agriculture, rural roads respectively. They provide respective policy advice, technical guidance and programme supports to provincial and local governments and relevant institutions. At the provincial level, the Provincial Development and Reform Committee (PDRC), Department of Forestry, Department of Water Resources (DOWR), Agriculture and Rural Department (ARD) and the Department of Transport (DOT) are the line agencies respectively. They issue provincial sector development strategies, policies, plans and technical guidelines, formulate and implement work and budget plans for provincial government funded programmes and projects. At county levels, the counterpart agencies are the Bureau of Development and Reform (BODR), the Forestry Bureau, the Bureau of Water Resources (BOWR), the Agriculture Bureau, the Bureau of Transport (BOT) respectively. They formulate and implement county level sector development plans and projects, review and approve system planning and project designs, including socio-environmental impact assessments, for relevant investment activities, supervise their implementation, and advice system operation and management.

11. Various research, education and consultancy institutions at different levels in the area of forestry, irrigation, agriculture, as well as transport are responsible for providing relevant technical services and capacity building. Forestry and Agricultural Extensions Stations at township level are responsible for forestry and agriculture services and technical extension at field level. Public and private contractors are contracted for infrastructure construction and technical services following government procurement guidelines. Township Authorities and Village Committees are involved in project identification and planning, mobilization of beneficiary contributions. Village committees, and farmers' cooperatives are responsible for operation and maintenance of village level public infrastructure systems. The management of infrastructure within the plantations and processing plants of private enterprises is the responsibility of the enterprises.

c. RELEVANT GOVERNMENT POLICIES AND PROJECTS

12. The development and management of rural infrastructure systems, in particular rural roads and irrigation and drainage systems, has been identified as one of the main pillars of support for sustainable agricultural and forestry development, poverty reduction and adaptation to climate change. Strategies, policies and technical guidance have been

¹ Hunan Medium and Long-term Plan on Climate Change (2014-2020), December 30, 2014, Hunan Provincial People's Government

developed or updated in recent years to guide the planning, design, construction, operation and management of these systems, including national and provincial plans, climate change adaptation and mitigation guidelines.

13. The national government has issued a series of documents on the development of the forestry industry. In 2022, the State proposed to (i) develop the oil tea industry and promote the transformation of low-yield oil tea forests, (ii) develop bamboo industry and promote bamboo forest cultivation and bamboo processing, (iii) develop forest and grass Chinese medicinal materials, and (iv) promote industrial standardization and green development. It is expected that by 2025, the national oil tea planting area will reach 90 million mu, and the annual output of tea oil, 2 million tons. The total output value of the bamboo industry has reached 700 billion yuan, the total area of economic management and utilization under the forest has reached 650 million mu, the total output value of economic crops under the forest has stabilized at more than 1 trillion yuan, and the number of economic crop demonstration bases under the forest has reached 800.²

14. In the latest national three-year action plan, the goal is clearer: increase the cultivation of oil tea by 1,278,000 hectares, transform 850,600 hectares of low-yielding oil tea, and ensure that by 2025, the national oil tea planting area reaches more than 6 million hectares, and the production capacity of tea oil reaches 2 million tons. Infrastructure construction is one of the key tasks, including the necessary production infrastructure such as roads, electricity and storages, making full use of water sources such as reservoirs, ponds and wells, supporting irrigation or water and fertilizer integration facilities, improving the production conditions of camellia without impacting the environment, and enhancing the ability to resist drought and stabilize production³.

15. In accordance with the rural revitalization strategy and the requirements of improving the quality and efficiency of the forestry industry, Hunan Province proposes to develop oil tea, bamboo and wood, under the forest medicinal plants, ecological tourism and other industries, and supports state-owned forest farms, forestry enterprises, forestry cooperatives, large professional and family forest farms and other new business entities to transform low-yield and low-efficiency systems into high-yield demonstration bases and demonstration projects. This would necessitate production & operation roads, as well as irrigation and other infrastructure construction.⁴

16. The area of camellia forest in Hunan Province is 1,446,000 hectares, the annual output of camellia oil is 263,000 tons, and the annual output value is 47.16 billion RMB, accounting for 33.5%, 47.5% and 40.8% of the national total, respectively⁵. It is planned that by 2025, the province will develop to more than 1,466,000 hectares, of which the area of high-yield oil tea forest will reach 73,600 hectares, accounting for 50%; The comprehensive utilization rate of camellia oil by-product increased from 15% to 40%. Cash crops under the forest will increase from 50,000 hectares to 83,000 hectares;⁶ (Hunan Oil tea Billion Industry Development Plan (2018-2025) Hunan Forestry Bureau, December 2018).

17. Hunan Province plans to build a high-yield and efficient bamboo supply base and standardize production by 2025. The output of bamboo shoots reached 850,000 tons. Hunan Province.⁷

18. Since 2021, Hunan Province has supported the cultivation and quality improvement of no less than 1 million mu in the key counties of oil tea planting for three consecutive

² Forestry and Grassland Industry Development Plan (2021-2025), National Forestry and Grassland Administration

³ Three-year Action Plan for Accelerating the Development of Oil Tea Industry (2023-2025), National Forestry and Grass Administration, National Development and Reform Commission, Ministry of Finance

⁴ The 14th Five-Year Plan for Forestry Development in Hunan Province (2021), Hunan Forestry Bureau

⁵ Several policy Measures for Hunan Financial Support for High-quality Development of camellia Industry, (July 27, 2021, Hunan Provincial People's Government

⁶ Hunan Oil tea Billion Industry Development Plan (2018-2025) , December, 2018, Hunan Forestry Bureau

⁷ 14th Five-Year Plan" Agriculture and Rural Modernization Plan, 2021, Hunan Provincial Government

years, of which: 1,000 yuan per mu of subsidies for renewal and variety improvement and 500 yuan per mu of subsidies for tending and upgrading.⁸

19. At present, the national rural highway network connecting townships and administrative villages has been basically completed. The Government is now focusing on the completion of roads within administrative villages that connect peasant groups and farm households, as well as roads within farms. Development and management of major rural roads are jointly funded by central, provincial and local governments. Rural roads within administrative villages and within plantation are developed and managed by beneficiary farmers, with technical and financial supports from governments at different levels. Assets ownership of major roads belongs to the state; and Assets ownership of small roads within administrative villages and within plantation belongs to beneficiary villages or farmers' cooperatives or private enterprises.

20. China's Intended Nationally Determined Contribution (INDC), submitted on 30 June 2015, commits to improving the climate resilience of the agriculture, forestry and water sectors through a comprehensive programme, including the construction of farmland and water facilities. The Medium - and Long-Term Plan on Climate Change issued by the Hunan Provincial government in 2014 proposes to establish a comprehensive mitigation system and enhance the ability to adapt. Improving rural infrastructure systems, especially water, roads and electricity, is a priority for improving the resilience of rural areas and agricultural systems. The plan emphasizes specific programs such as water harvesting, water-saving irrigation, watershed management, conservation agriculture and adaptive varieties.⁹

III. RATIONAL AND JUSTIFICATION

a. LESSONS LEARNED

21. The following lessons are learned from relevant donor and government investment operations in agricultural infrastructure improvement in China, especially in Hunan in recent years:

- Infrastructure interventions need to be better integrated with other agricultural and agribusiness options in order to better realize the benefits of infrastructure investments.
- Donor invested infrastructure interventions need to be well coordinated with government development programmes to ensure the readiness of external infrastructure systems.
- Climate change considerations needs to be incorporated into each stage of project identification, preparation and implementation in order to build climate resilience.
- Suitable institutional arrangements and exit strategy need to be planned and implemented in order to ensure the sustainability of infrastructure investment.
- The management after construction is key. Effective management groups and training should be established.

b. OPTIONS FOR DEVELOPMENT

22. Based on local nature and social-economic conditions, the identified needs of sustainable green forestry development, and the requirements for effectively responding to climate change impacts, the following major options are identified for improvement of public and private infrastructure systems in the targeted project area in Hunan Province:

⁸ Several Policies and Measures of Hunan Province to Support High-quality Development of oil tea Industry, July 27, 2021, Hunan Provincial People's Government

⁹ Hunan Medium and Long Term Plan on Climate Change (2014-2020), December 2014, Hunan Provincial People's Government,

- Improvement and development of production pathways and road out and in the plantation, to enable year-round easy access to production areas;
- Improvement and development of irrigation systems, to extend irrigation coverage, improve irrigation and fertilizer use efficiency;
- Improve and develop field management sheds, fences, workshops of processing plants, warehouses and cold storage, office buildings, staff quarters.
- Establish and operationalize sustainable O&M mechanism for all the public infrastructure systems developed and improved under the project.

c. INFRASTRUCTURE DEVELOPMENT CHALLENGES

23. Major constrains to infrastructure development and improvement identified in the project area include: (i) limited financial capacity of local government and communities; (ii) limited local capacity in climate change mainstreaming; (iii) limited technical capacity of beneficiary farmers in infrastructure O&M. Government investments have been focusing on external major infrastructure systems in the past decades, leaving infrastructure in forestry farm lagging behind. Where the major systems have been developed and improved in recent years, the government is now promoting completion and upgrading of downstream and village and farm level systems. But the financing gap is large and external assistance is urgently needed.

d. INFRASTRUCTURE DEVELOPMENT OPPORTUNITIES

24. The current government strategy and action plan are very clear, to moderately expand the scale of oil tea cultivation, promote the transformation of low-yield forests to improve the yield level, develop the under the forest economy focusing on the development of Chinese medicinal materials and edible fungi. By 2025, the planting area of woody oil¹⁰ will reach about 270 million mu, and the annual output of woody oil will reach 2.5 million tons, of which 90 million planting area of camellia oil, and 2 million yield tons camellia oil. The total output value of bamboo industry reached 700 billion yuan; The total area of economic management and utilization under the forest reaches 650 million mu, and the total economic output value under the forest is stable at more than 1 trillion yuan.

25. RATIONAL

26. As shown in Table 1, more than 90% of villages lack forest land production road, and more than 95% of villages lack necessary irrigation facilities for forest land production. The project counties urgently need improved forest roads and irrigation to meet the needs of forestry production, poverty reduction and improved livelihoods.

¹⁰ China is rich in woody oil tree species, including oil tea, walnut, olive, apricot, hazelnut, oil peony, almond, dogwood, Yuanba maple, and Canocarpa

Table 1 Status of Public Infrastructure in the Project Counties

County	Area of cultivated land and forest land (10,000 mu)					Road (bamboo/camellia/cash crop land under forest)	Irrigation (bamboo/camellia/cash crop land under forest)
	Cultivated land area(mu)	Forest land area(mu)	Bamboo area(mu)	Camellia tree(mu)	Cash crop area under the forest(mu)	Percentage of villages with imperfect production roads and forest roads(%)	Percentage of villages with no irrigated forest land(%)
Taojiang	56.1	197	115	3.3	32	>90	>98
Heshan	67.4	64.8	19	6.2	5	>90	>95
Yuanling	62.8	700	0.5	13.35	76.1	>95	>98
Xipu	67.4	362	12	18	19.95	>95	>98
Hangshan	34	74.5	12.8	12	1.63	>90	>95
Ynaling	21.6	235.5	13.3	10.67	2.97	>95	>98
Pingjiang	80.5	455	64.5	73	32	>90	>95

27. Forest infrastructure systems, especially roads, irrigation and drainage systems for cash crop in forest land, has been identified as one of the major supporting pillars to poverty reduction and climate change adaptation in China.

IV. PROJECT ACTIVITIES LINKED TO INFRASTRUCTURES

a. OBJECTIVE

28. The project will address some of the major gaps in the current infrastructure system in the project area which may limit or constrain the implementation of the proposed project activities. Social, environmental and climate change considerations will be mainstreamed throughout the project by strengthening the capacity of the government and beneficiaries to assess risks and identify adaptation options - and plan and decide accordingly, and for example improving the climate-resilience of the infrastructure system.

b. STRATEGY AND APPROACH

29. The following strategies and approaches were considered and adopted in project design: (i) comprehensive strategy, through combination of physical, institutional and technical options; (ii) integrated approach, to integrate infrastructure options with forest crop options and inclusive rural development; (iii) climate-smart approach, to mainstream climate change adaptation and mitigation into infrastructure system planning, engineering design and operation and management; (iv) participatory approach, through establishing and strengthening infrastructure management organizations to better involve beneficiary farmers into infrastructure planning, design, construction and O&M; and (v) building partnership with government initiatives, through completing with on-going and planned government investment strategies and programs.

30. Scope of Component infrastructure: Associated to the value chain infrastructure needs identified and supported in Component 1, this component will address gaps in the current infrastructure which may limit or constrain the implementation of project activities. Improvements in infrastructure systems will be achieved through a combination of physical

improvements, institutional strengthening and technical assistance, which will improve passage access to forest land and reduce risks and impacts associated with changes in weather and climate conditions, improve the sustainability of forest product production and the capacity to adapt to climate change. It will also strengthen and enlarge the processing capacity of forest products including bamboo products, bamboo shoots, camellia oil and Chinese medicinal materials.

c. PROPOSED PROJECT ACTIVITIES

31. This infrastructure component consists of two sub-components:

Sub-component 1.3: Infrastructures investments for production

Sub-component 2.2.3: Establishment of Productive Infrastructure

Sub-component 1.3: Infrastructure investments for Production:

32. This sub-component will address some of the major deficiencies in the infrastructure system of the project area that may limit or constrain the production in the 3 value chains, supporting public and private infrastructure, including passageways for ensuring accessibility within the plantations, and climate-resistant irrigation systems that help reduce vulnerability to climate change.

Activity 1.3.1 Development of pathways and roads for production

33. The project area lacks adequate roads for production, including for bamboo and camellia oil. This activity will support the development of production roads (or passageways) and vehicle-accessible roads within the plantations to serve rural farmers and enterprises (both state-owned and private).

34. This activity would support development of 657 km production pathways (width 1.5m) and 415 km vehicle-accessible roads (width 3.5m). Approximate average daily traffic is less than 10 for vehicle-accessible roads. The longest section is less than 6km long.

35. Total cost of this activity will be shared by Government co financing and enterprise self-financing.

36. The construction of traffic lanes will be under the guidance of the Transportation Bureau, and the route selection and design will be carried out by a qualified professional design team according to the national traffic lane standards (Design Specifications for Low Volume Rural Roads, JTJ/T 3311-202, Ministry of Transport of the People's Republic of China), and by a professional construction team. Environmental impact assessment is carried out to minimize the ecological impact. Land expropriated for the construction of traffic roads, if it is the land of individuals or enterprises, will be with the consent of the landowner, and will be given land compensation fees in accordance with the Regulations on the Implementation of the Land Administration Law of the People's Republic of China (Standing Committee of the National People's Congress, Order of the President No. 32, 2020-01-01).

37. Ownership of the on-forest farm roads improved under the project will be to a user committee including the beneficiary villages (Cooperative organization), farmers and enterprises, who will be responsible for O&M of these road systems with continuous technical and financial supports from government transportation department.

Activity 1.3.2 Development of Irrigation system

38. This activity will support the improvement and development of irrigation water supply systems, including the development of ponds, pumping stations, canals and pressure pipes. Pipe irrigation system, which necessitates less investment and is easy to use, will be used for bamboo shoots, Chinese medicinal materials and camellia forest land. Demonstration experiment of drip fertigation will be carried out in camellia oil plantation.

These interventions would help improve productivity, climate resilience and increase farmer income.

39. This activity would support the development of a total of 12,700 mu drip fertigation system, 3300 m³ water pond, 330 km pressure pipelines, 101 km canals, 20 small pumping stations. Maximum size of irrigation system will be 200 ha and fertigation system pilot will be around 30 ha. These interventions would contribute to forestry industry development in the project area, through enhancing forest productivity, diversification and climate resilience.

40. The area of irrigation by reservoir and pipeline is 199,500 mu, and 12,700 mu of integrated water and fertilizer area will be developed. Since the project area is mountainous and hilly, a single irrigation system is generally less than 500 acres / 200 ha. There are three kinds of irrigation water sources, one is a small spring on the mountain, the second is a river near the project area, and the third is a small reservoir near the project area. Due to the small irrigation area, the pump flow is only 20-100 m³ / h, so the impact on reservoir and river flow is negligible. There won't be canals within plantations but only to bring water from reservoirs to the plantation;

41. Ownership of the irrigation systems and the water source facilities improved and developed under the project will belong to the beneficiary villages, water users' associations or farmers' cooperatives depending on the decision made by respective county project management offices during the project implementation, based on the size and benefiting scope of the systems. Improved and developed irrigation systems will be handed over to the identified owners at the completion of construction, who will be responsible for O&M of the systems. During the course of the project, the government will be required to contribute to the maintenance of the project infrastructure using government matching funds. After the completion of the project, continuous technical and financial support is required from government departments and relevant irrigation management agencies.

42. The O&M associations/group like WUAs in areas of water scarcity will be trained in adaptive water management for water use efficiency under different climate conditions and supported in the installment of a network of digital water meters in strategic places in the irrigation system and in the design of an instant water flow data registration and analysis system. The data on water flows will be combined with collected data influencing crop water needs, crops and varieties cultivated in the various fields, their yields and type of irrigation equipment used. This will allow for monitoring and analysing water productivity and water use efficiency throughout the irrigation system and for implementing improved and adaptive water management and use efficiency.

Activity 1.3.3 Development of field management facility

43. The project area lack field management facility for production, including office and management housing, warehouse for storing inputs, and other means of production. This activity will support the development of field management facility within the plantations to serve rural production for farmers and enterprises (both state-owned and private).

44. This activity would support development of management housing and warehouses. These facilities are spread across several sites in the project area in seven counties and will respectively cover in total 4650 m² and 2150 m² knowing that each facility will not be larger than 100/150m² each.

45. The selection of the location of the warehouse should meet the requirements of GB/T 42958-2023 & GB/T 8321.10-2018 "Instructions for the Use of Inputs". The warehouse should be far away from water sources and residential areas, should be built in a place with high terrain and no water, should be equipped with fire equipment and first aid medicine boxes, should have good ventilation conditions and install lighting system.

46. Ownership of the in-forest farm house and warehouse improved under the project will belong to a user committee including the beneficiary villages (Cooperative organization), famers and enterprises, who will be responsible for O&M of these facility.

Activity 1.3.4: Support to infrastructure O&M Cost

47. Public infrastructure systems need relevant institutional arrangement, proper mechanism and suitable capacity for sustainable O&M after completion of construction. This activity would support to strengthening of O&M organizations, including cooperative , water users' associations and other infrastructure management groups, through procurement of office furniture and equipment, and organization training on infrastructure O&M for management groups and beneficiary farmers.

Sub-component 2.2: Establishment of Productive Infrastructure

Activity 2.2.3 Developing and improving infrastructure for the enterprise park

48. The traditional processing enterprises in the 3 value chains are small in scale and scattered resulting in (i) the low utilization efficiency of raw materials (such as bamboo utilization rate of only 15%), resulting in a large amount of waste of resources; (ii) increased environmental pollution caused by non-treated waste from processing; (iii) the non adoption of energy saving modern technology, wasting electricity (iv) low productivity. The lack of appropriate infrastructure limits both the production itself and its capacity to be sustainable.

49. This sub-component will support farmers and cooperatives to establish processing, storage and technology demonstration industrial parks on state-owned land in suburban areas, including oil tea, bamboo and Chinese herbal medicine processing parks. These parks will include shared amenities such as heating systems to provide heat sources for production, workshops to expand production, warehousing and exhibition centers. These infrastructures will enable companies to scale up, improve production efficiency, and promote production standardization and compliance with environmental standards. The main activities of this subsector include:

50. The development of 31 km of internal roads and lighting in the parks, 38000 m2 heating system, 14000m2 storage, 45000m2 workshop, 64 set processing equipment.

51. The ownership of the industrial park belongs to the township government and the county government. The county and township governments are responsible for the maintenance and management of the park's infrastructure. After the completion of the infrastructure, the County Project Management Office shall transfer the use right to the corresponding management agency. The management agency shall be responsible for the operation and maintenance of the infrastructure, and can receive technical and financial support from government departments and relevant agencies.

V. IMPLEMENTATION ARRANGEMENT OF THE INFRASTRUCTURE ACTIVITIES

a. POINT OF ATTENTION DURING IMPLEMENTATION PERIOD

52. These activities will be implemented in selected locations in the project counties of Hunan Province in accordance with local infrastructure constraints and the development needs of the project forestry industry. The Provincial Project Management Office (PPMO) will be responsible for overall oversight and coordination. Sub-offices at the county level will be responsible for the detailed implementation of activities grouped into segments within their respective counties.

53. A step-wise participatory process will be adopted for implementation of this sub-component, including: (i) participatory need assessment on infrastructure development based on local development plans on poverty reduction, production potential and their requirements on infrastructure services; (ii) identification/establishment and training of

infrastructure management organizations; (iii) system planning, engineering survey and design of infrastructure systems; (iv) consultation and finalization of system planning and engineering designs, including discussion and agreement on the O&M responsibilities of infrastructure management organizations; (v) implementation of construction and supervision; (vi) inspection of construction completion and handing-over of O&M responsibilities to infrastructure management organizations; (vii) implementation of normative O&M by infrastructure management organizations; and (viii) facilitation of women's involvement in each of the above steps.

54. The system planning and engineering design of the proposed infrastructure shall follow the technical specifications issued by the relevant government agencies. County Forestry Bureaus should work closely with Water Bureaus, Transportation Bureaus, Power Bureaus, Environmental Protection Bureaus, labor employment, health committee to ensure that construction programs are in line with government strategies and policies. Qualified experts should be selected to provide technical assistance and training to the project. Prior to the commencement of each infrastructure project, a corresponding infrastructure management body should be identified/established to fully participate in the whole process of system planning, design and construction supervision, and assume the responsibility for operation and maintenance after the completion of the project.

55. A sustainable and weather-resistant approach will be implemented at every stage of the project. In preparation, the impacts of climate change on water supply, water demand, frequency and intensity of floods and droughts will be assessed and integrated into system planning. In the implementation process, appropriate adaptation and mitigation options will be integrated into system design and operation, including the use of adaptive technology models and engineering, and the application of energy-efficient technologies and equipment to support effective water resources management. Indicators related to climate change, such as irrigation efficiency and reliability, will be carefully evaluated during the evaluation process.

56. During the planning and engineering design of the system, special attention should be paid to the environmental protection policies of the Government and IFAD in order to avoid any significant negative environmental and social impact. Specifically, the following interventions will be excluded : (i) large-scale dam/reservoir construction, such as dam height of more than 15 meters and reservoir capacity of more than 3 million cubic meters; (ii) use of ground water; (iii) Restoration or development of large-scale irrigation schemes with an irrigated area of more than 100 hectares; (iii) construction of rural roads that entail the total area being cleared above 10 km long, or any farmer with more than 10 % of his/her private land taken; (iv) drainage or regulation of natural water bodies (e.g. river regulation); (v) significant extraction or diversion/containment of surface water leaving the river flow below 20 per cent environmental flow plus downstream user requirements; (vi) Significant conversion or degradation of critical natural habitats or critical cultural heritage sites

57. The specific interventions initially identified in this sub-component will be further defined and adjusted during project implementation according to the same selection criteria applied during project preparation : (i) Compliance with relevant government policies, plans and guidelines; (ii) Contribution to the achievement of programme objectives; (iii) Availability and good potential of forest land and water resources development; (iv) The readiness of external major infrastructure systems/networks; (v) The willingness of local villages and beneficiaries to take responsibility for operation and maintenance; (vi) Technical, economic, social and environmental feasibility; (vii) Incorporating climate change conditions; (viii) Seeking FPIC from community members including ethnic minorities (where relevant); (ix) Taking into account the overall scale, reasonable scope and cost of the project.

58. Infrastructure construction shall comply with the basic engineering construction procedures and technical specifications (such as the Regulations on the Management of Hydraulic engineering Construction Procedures (2017)). The steps of construction implementation include: design, construction, acceptance, handover, monitoring and evaluation.

b. DESIGN AND CONSTRUCTION STANDARDS

59. Forest road construction: (I) Attention should be paid to the layout of road selection, (i) Conform to the mountain trend, reduce excavation and fill; (ii) Avoid ecologically sensitive areas, such as steep slopes above 25°, to avoid soil erosion and vegetation destruction; (iii) Choose the road form and structure that is conducive to ecological protection, and use local stone and adobe materials as far as possible for pavement; (iv) Avoid triggering landslides and rather protect slope and add cover to mitigate erosion. and avoid the destruction of ecological environment and biodiversity. (II) Forest road density: There is no unified construction standard for forestry industry infrastructure in China, which can be built with reference to the experience of demonstration zones in relevant provinces and counties, such as Jiangxi Province, which stipulates that the average density of bamboo forest roads in the province reaches more than 4 meters/hectare (Opinions of the General Office of Jiangxi Province on Accelerating the high-quality development of bamboo Industry. 2021) The average level of Sichuan Province requires 20 meters/hectare (Sichuan Province 14th Five-Year Plan for high-quality Development of bamboo Industry and high-quality Construction of Bamboo Forest Landscape), and Zhejiang Province requires a road network density of 35 meters/hectare. The density of some forest roads, which combine tourism and health, can reach 90m/ ha. The field road of the camellia forest can reach 150m/ ha. The width of the main road used for production management and transportation is more than 3.5m, and the road surface can be mixed hard soil and cement. Field road width should be more than 1.0m. The project is suggesting an average of about 50-80 m/ha for forest industry (bamboo, camellia and plant under forest).

60. Reservoir: Reservoir shall be configured according to the standard of not less than 1 per 100 mu (capacity more than 50m³) (Guide to the construction of Anhui for camellia oil high-yield Demonstration Base, 2020, Anhui Forestry Bureau). Ecological tourism can be combined in the planning of forest road construction. The structure of the reservoir can be soft structure, PVC pipe is used in the field pipe, and PE pipe is used in the moving pipe. Bamboo pipe could also be piloted.

61. Innovation in the application of drip water-fertilizer integration technology: The project will develop drip irrigation water-fertilizer integration in camellia oil crops. This technology is a climate-resistant technology to protect camellia against high temperature and drought, increase production and income. Compared with the traditional fertilizer application method, this method can increase the fertilizer utilization efficiency from 35-40% to more than 65%, and can avoid fertilizer leaching out of the root layer. Compared with traditional ground irrigation, this water-fertilizer integration technology can save more than 50% of water. However, this is a new technology in the project county, and it needs to be tested and demonstrated. Through the test, summed up the applicable technical mode and management mode, and then gradually expand the application area. The choice of water and fertilizer integration technology scheme should follow the principle of adapting to local conditions. Equipment selection, system design, operation and maintenance can refer to the national standards "Micro-irrigation Engineering Technical Specification (GB/T 50485-2020)" and "Sprinkler Irrigation Engineering Technical Specification (GB/T 50085-2007)".

62. A technical service network shall be established and improved. Farmers and industrial skilled workers can be trained through on-site meetings, technical lectures, technical schools, online classes and other forms. The popularization of new technologies should be carried out in the form of expert guidance and scientific and technological demonstration households. County and township governments and enterprises in the project area should

strengthen cooperation and exchanges with universities and research institutes to speed up the transformation of scientific and technological achievements.

It is important to note that China has regulations to follow for each of the type of infrastructures (including socio-environmental norms). For example, In China, standards related to the construction of rural roads and farm production road include:

- National standard: Technical code for village road engineering (GBT_51224-2017) ,
- National standard: Well-facilitated farm land construction—General rule (GB/T 30600-2022)
- Ministry of transportation standard: Design Specifications for Low Volume Rural Highway Engin (JTG / T3311—2021)

Among the above standards, environmental requirements related to the construction of rural roads and production roads include:

1. The selection of road routes should reduce the impact on the ecological environment, save land resources, avoid bad geological areas, avoid high filling and deep digging, prevent soil erosion, and protect the environment.
2. Adapt to local conditions and terrain.
3. Demolition of farm houses and occupation of arable land should be minimized as much as possible.
4. Encourage the use of green materials and processes, build ecological canal systems, buffer zones, etc., to reduce adverse impacts on the environment.
5. If the original road can be used, it should be maintained and utilized as far as possible, and the repaired road should meet the corresponding design standards.
6. New roads should be arranged along irrigation, drainage channels and field edges to reduce crossing buildings.
7. On the main, branch canal, the top of one side can be widened as a road.
8. For production roads in the farm, the pavement should use sand, mud, plain soil pavement and other permeable pavement. In heavy rainfall areas, concrete pavement can be used.

The social requirements involved in road construction from Administrative Measures for Rural Road Construction (Ministry of Transport, People's Republic of China, 2018) :

1. Under the guidance of the people's government at the township level, the villagers' committee may organize the construction of village roads in accordance with the principle of voluntary and democratic decision-making by villagers and the system of one case, one discussion
2. If a rural road construction project needs land requisition and demolition, compensation shall be given in accordance with the compensation standard determined by the local people's government. Compensation includes land compensation, resettlement fees, compensation for green land seedlings and compensation for ground attachments. Under the principle of the national unified guarantee of the basic living standards and property rights and interests of the expropriated farmers, each province and city formulated specific compensation standards for road construction according to the different levels of local economic development.

VI. RISKS AND MITIGATION MEASURES

63. The activities under the project may have potential risks to the environment.
 - (a) Increased production from inappropriate practices may increase soil erosion, pollution from chemicals such as pesticides, and waste from processing activities.

- (b) Improvements or new developments in irrigation schemes may have an impact on water ecosystems through overuse of water sources and may increase the potential for fertilizer leaching in case people continue old practices and do not reduce schedule of irrigation and fertilizer as permitted by improved fertigation and fertilizer systems.
- (c) Inadequate institutional capacity may lead to inadequate operation and maintenance of infrastructure systems;
- (d) Infrastructure systems may be damaged by floods, landslides or soil erosion;
- (e) And the inefficiency of irrigation water caused by inappropriate irrigation methods.

The Annex 1 is presenting what can be done to mitigate some of these risks.

64. Therefore, it is very necessary to carry out reasonable planning and design for the construction of infrastructure. In addition, the potential impact of projects on the environment should be closely monitored during their implementation.

65. The activities designed for the project include: incorporating climate change factors into infrastructure improvements to increase resilience to natural disasters and the impacts of climate change :

- (a) With canal setting, need to enlarge the section of canal. 1.3-1.35 factor can be used or even larger one, depending on climate change and size of flow rate;
- (b) When construction of roads, anticipate potential erosion / flooding risks and mitigate risks by protecting slopes, ensuring passage way / diverging canal for water to direct water flow better/avert risks, and restoring ecology nearby the roads with local species / trees
- (c) Use vegetation cover to reduce water erosion / improve water storage;
- (d) Use supporting trees in bamboo forest to increase biodiversity, reduce pest vulnerability and protect bamboo trees,

66. Identification/establishment and strengthening of infrastructure management organizations to enhance institutional capacity for infrastructure operation and maintenance; Carry out technical training and promote water-saving irrigation technology as well as integrated pest and fertility management. Possible risks and measures for mitigation are summarised in Annex.

Appendix 2: Risks and Mitigation Measures

Interventions	Risks	Risk level	Risk mitigation measures	Monitoring	Responsible Institution	Residual risk level
Development of Irrigation system	Inappropriate O&M of infrastructure systems resulted from inadequate institutional capacity	Medium	County PMO, supported by TA, will advise and assist the identification/establishment and strengthening of IMGs for sustainable O&M.	Six-monthly monitoring of application of environmental and social risk management measures	County PMO and Forest bureau backed up by the County Agriculture Bureau, Water Bureau and Transport bureau as needed	Low to medium
	Damage of infrastructure systems due to floods, landslides or soil erosion	Medium	IMGs, supported by County PMO, will conduct disaster risk management following government strategies.			Low
	Inefficient use of irrigation water due to inappropriate irrigation practices	Medium	County PMO, supported by TA, will organize trainings to WUA staff and farmers on productive and efficient water use.			Low
	Economic displacement by conversion of farmland to water ponds and pools. Will only affect very small areas (50m ² -100m ²) and no farmer affected will lose more than 10% of his/her land	Medium	Transparent, informed and documented discussion with all farmers benefitting from the planned irrigation system to reach voluntary signed consent with land user rights holders for placing water ponds or pools on their land. Farmers may decide compensating affected farmers by transferring user rights to land from non-affected farmers.			Low
	Ad hoc organization of O&M of irrigation systems and infrastructure may affect sustainability	Medium	Establishment of water users associations (WUA) or other O&M associations/groups at the irrigation infrastructure planning phase and involve them in the design of the irrigation system and the development of an O&M plan, including roles and			Low

			responsibilities, budget and cost recovery mechanism. Training of WUA or other O&M group in irrigation water management using rainfall forecasts and operation and maintenance of water infrastructure			
	Downstream impacts on water ecological systems from overuse of the water source		Surface water resources are in general plentiful in the rainy mountainous province (1200-1500 mm/year). The water source for the irrigation system investments will in most cases be water harvested and stored from mountain streams and springs. In some cases, it will pumped water from the rivers, The minimum dry season streamflow of those rivers are bigger than 1m ³ /second. The water volume intake will in all cases be far below the 0.028m ³ /second. There will be no pumping in the peak of the dry season where irrigation water will come from the stored water in ponds and reservoirs. There will be no pumping of ground water financed by the project.			Low
	Conversion of land area to reservoirs and pumping stations	Medium	The water harvesting and irrigation infrastructures financed by the project are small scale and low risks with ponds or small reservoir from 50-100m ³ . Only limited land areas will be used for reservoirs and pumping stations. Most of this land is currently village collectively owned barren land.			Low
	Drainage water polluted with agrochemicals	Medium	In most cases pipe or drip irrigation will be used and close loop circuit should be supported to have leakage.			

	Low efficiency in usage of irrigation water	Medium	<p>Farmers to be trained in line with the government's action plan for capacity building and introduction of practices for reduction in the use of agrochemical.</p> <p>WUAs or other O&M associations/ group in areas of water scarcity will be trained in adaptive water management for water use efficiency under different climate conditions using digital water monitoring of water productivity and use efficiency</p>			Low to medium
Activity 1.3.1 Development of roads in the forestland	<p>Economic displacement by conversion of farmland to roads. Will affect limited areas and no farmer affected will lose more than 10% of his/her land</p> <p>Ad hoc organisation of O&M of rural roads may affect their sustainability</p>		<p>Transparent, informed and documented discussion with all farmers benefitting from the road and affected by its routing to reach voluntary signed consent with land user rights holders of farmland proposed for conversion to the road. Farmers may decide compensating affected farmers by transferring user rights to land from non-affected farmers. Monetary compensation may also be used.</p> <p>Before the investment in any road infrastructure an operation and maintenance (O&M) plan for each section of the roads must be prepared, including roles and responsibilities, budget and sources of funding</p>			
	Soil erosion and increased risks of landslides from improper drainage and interventions on slopes and mountain sides removing vegetation	Medium	<p>There will be a mixture of upgrading of existing roads and construction of new roads. Most of the roads are too small to require an environmental assessment. The responsibility for rural roads has been transferred to the CARA, who will oversee that proper erosion control and</p>			Low

		<p>drainage measures are built into the bidding process, contracts, and the engineering design before they give the final permission for the road construction.</p> <p>Township governments working with the County PMO will manage the contracting process. In addition to the constructing company, a supervision company will be contracted to oversee the works and its acceptance. A warranty is included in the construction contract, which makes the constructing company responsible for fixing any failures in the works, including the failure to apply proper soil erosion control and drainage measures, within the 1st year after the end of the project.</p> <p>Most of the roads will go through current forest land and collectively owned barren land. In a few cases forestland will be impacted, which will require the assessment of impacts and approval from the forest Bureau. Forest land with any protection category should be avoided.</p>			
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China

Hunan Green Development Project Project Design Report

Annex: Annex 15 Lessons Learnt

Mission Dates: 21/10/2023-04/11/2023

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Asia and the Pacific Division
Programme Management Department

Annex 15 Lessons Learnt

IFAD currently has four on-going projects in five provinces investing a total cost of USD 675 million. IFAD's contribution to the current portfolio represents 43% of the total. IFAD has also implemented three projects in the province of Hunan, including the ongoing Hunan Rural Revitalization Development Project (H2RDP). These projects aimed to demonstrate effective measures and approaches for enabling smallholders, especially vulnerable target groups to be integrated into value chains to benefit from the modernization of agro-industry while enhancing their resilience to economic, environmental and climatic shocks. Building on the experience of these projects as well as drawing lessons from IFAD's Research and Impact Assessment (RIA) Division documents¹, some important lessons are incorporated in HGDP's design as outlined below.

(i) Value Chain Approaches

- An integrated approach covering both production and marketing aspects is needed to ensure that the project has a sustainable impact and to specifically target those at the lower end of the income distribution.²
- A combined top-down and bottom-up approach to engaging smallholder producers in the value chain has resulted in the successful identification of an appropriate set of activities and interventions for project beneficiaries.³ Such a dual approach provides an effective mechanism for understanding the needs of key stakeholders leading to effective design.
- Programs that simultaneously develop value chains and facilitate market access are crucial in making production profitable for smallholder farmers⁴ as this ensures that the product specifications are met, higher volumes are sold and higher prices are secured.
- Sustainable impact is driven by focusing on not only sales but overall impact on business profitability and diversification of income sources to decrease vulnerability and build resilience.⁵
- The presence of very small landholdings, require a multiplicity of approaches to generating returns on the factors of production (labour, capital and land), such as aggregation into cooperatives, leasing and contract farming.
- Business Planning financing has been practiced in China portfolio for the last two cycles, it proved to be a useful instrument for reaching out to the smallholder farmers through the grassroot agro-businesses, leveraging also matching investments from the private sector and fostering the development of inclusive, fair and sustainable business relations for sustained benefit.

(ii) Targeting and Inclusion of Smallholders, women and youth

- Targeting is most successful when smallholder, including women and youth are integrated into the project from the outset – with the selection of the value chains. Value chains selected because of their potential to

¹ Achieving Rural Transformation: Results and Lessons from Impact Assessments. IFAD, 2021.

² Impact Brief. China. Guangxi Integrated Agricultural Development Project. Research and Impact Assessment Division. IFAD.

³ Impact Brief. Nepal High-Value Agriculture Project in Hill and Mountain Areas. Research and Impact Assessment Division. IFAD.

⁴ Impact Brief. Senegal: Agricultural Value Chain Support Project. Research and Impact Assessment Division. IFAD.

⁵ Impact Brief. Ghana Rural Enterprises Programme phase III. Research and Impact Assessment Division. IFAD.

involve smallholders, women and youth are much more likely to succeed in this endeavour.⁶

- Inclusion of smallholders through cooperatives provides an effective and inclusive targeting approach that builds on previous efforts of poverty alleviation and helps to graduate households to a more sustainable model for economic growth by helping them negotiate better terms and prices and linking them to high value markets. This approach is consistent with China's upper-middle income country (UMIC) status.
- Women's participation can be transformational as it leads to empowerment along several dimensions. For example, providing women with relevant business management and skills training as well as complementary inputs increased their control of income generating activities, decision-making and leadership.⁷ The focus on women and the transformation of their roles is critical in the current rural context where they play a critical role in agricultural production. Their participation provides an important pathway not only for their empowerment but also for rural revitalization in China.
- Long term trends show that youth are not interested in the agriculture sector due to the low returns, high risks and the seasonal nature of the jobs. Productive engagement of youth requires the creation of employment generation and enterprise development opportunities that are attractive for them in technical and vocational skills, operation of equipment, transport, processing and marketing, as well as business incubation and entrepreneurship apprenticeship/training.

(iii) Infrastructure Investments

- To capitalize on their full potential, infrastructure interventions need to be properly integrated with other investments such as enhanced agricultural production, access to capital and markets. RIA assessments to GIADP project of Guangxi suggested that, impacts are maximized when infrastructure interventions are combined with marketing activities⁸
- Strong alignment with government projects especially in infrastructure investment is a proven best practice in China program (including the earlier IFAD projects in Hunan) to enhance synergy, leverage ownership and ascertain sustainability. Meanwhile, clear institutional arrangements need to be specified with clear ownership and responsibility for operational, management, maintenance and replacement arrangements for all investments.

(iv) Climate Adaptation and Risk Mitigation

- Climate risks pose a real threat to the agriculture sector and require investments in training, adaptation technologies and practices, improved inputs as well as infrastructure that can provide improved access to water to protect against droughts and other climate risks. Projects that establish safeguards or contingency plans for extreme events are more likely to achieve sustained impacts⁹.
- Projects in the agriculture sector particularly those dealing with plantations and agro-forestry could have a significant impact in helping to develop the

⁶ Impact Brief. Senegal: Agricultural Value Chain Support Project. Research and Impact Assessment Division. IFAD.

⁷ Achieving Rural Transformation: Results and Lessons from Impact Assessments (IFAD, 2021).

⁸ IFAD10 Impact Assessment Report

⁹ IFAD10 Impact Assessment Report

systems for enhanced carbon sequestration, creating awareness of the positive climate mitigation and monitoring and accounting for additional benefits.

(v) Project Management

- Ensuring the appointment of adequate and capable finance and procurement staff with relevant qualifications and experiences and proper accounting software is critical for efficient implementation and avoids delays.
- For project implementation, intensified capacity building at initial stage for project staff would be essential to shorten the learning curve for such type of project with public-private-producer partnership nature. Adoption of MIS, engagement of service providers for M&E and other technical/managerial tasks of the project can be conducive for efficient project implementation and management;

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Project Design Report

Annex: Annex 16 Targeting Gender And Social Inclusion Note

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▪ Annex 16 Targeting, Gender and Social Inclusion Strategy

Introduction

The political stability in the country has enabled long-term development planning in the People's Republic of China which has paid dividends and has fuelled economic development and led to alleviation of poverty. Since the People's Republic of China (PRC) began to open up and reform its economy in 1978, its growth rate has averaged over 9 percent a year. China is the second largest economy in the world in nominal terms and is at the top in terms of Purchasing Power Parity (PPP) since 2017 after overtaking the United States (US).¹ China's share in the world economy rose from 1.5% in 1978 to 15% today, and per capita GDP has grown from US\$ 300 dollars in 1978 to US\$ 12,670 in 2022. China is now an upper-middle-income country.

Poverty Alleviation: The high rate of economic growth led to significant reduction in poverty which fell from 88% in 1981 to 3.8% in 2017 (as measured by the percentage of people living on the equivalent of US\$ 1.9 or less per day in 2011 purchasing price parity terms). Government of China declared the eradication of extreme poverty in 2021 - making China the first developing country to achieve the SDG1 target, ten years ahead of the global target. However, challenges remain high in avoiding relapsing into poverty and in reducing inequality and regional disparities between rural and urban areas.

Rural context: Nearly 600 million Chinese, about 40% of the population, live in rural communities. China has witnessed a fundamental transformation in rural areas: whilst rural poverty has been eliminated, rural areas have experienced massive urban migration of active workforce attracted by the large gap between urban and rural salaries (per capita disposable income for the urban population is almost three-times higher than the rural population) and the limited income-generating opportunities in the rural areas. Rural villages today are characterized by a primarily elderly population and some middle-aged women taking care of the elderly parents, who contributes to about 60% of the labour force in rural areas, young children, and sick and/or people with disabilities. Rural families are often dependent on remittances provided by migrant worker family members, complemented by some income from small-scale production and local labour. The contribution of agriculture to the rural household income has declined over time, and income-generating opportunities are mostly in value added activities such as processing or high value crops. There is urgent need to revitalize rural areas to stem the tide of urban migration.

Rural Revitalization Strategy: The government of China developed the "rural revitalization" strategy (2017) in response to the urban migration trend. This is a long-term strategy which aims at rebalancing the existing divide between urban and rural areas by accelerating the development of rural areas and making them equally attractive as urban areas. Key strategies for pursuing and sustaining poverty reduction efforts and developing rural areas include: agricultural "industrialization" (i.e. the development of lead 'industries' through the support of 'new economic entities' (NEEs), such as a mix of private sector players including farmer cooperatives, family farms, and lead agro-enterprises, creation of employment opportunities, and comprehensive infrastructure development - among other strategies. Similarly, the government formulated several relevant guidelines or plans to address different sub-sector or thematic issues including the Long-Term Youth Development Strategy (2016-2025) and the National Guideline for Women and Children Development (2021-2030) for the development of women and youth.

¹ [International Monetary Fund. May 2021.](#)

Targeting Strategy

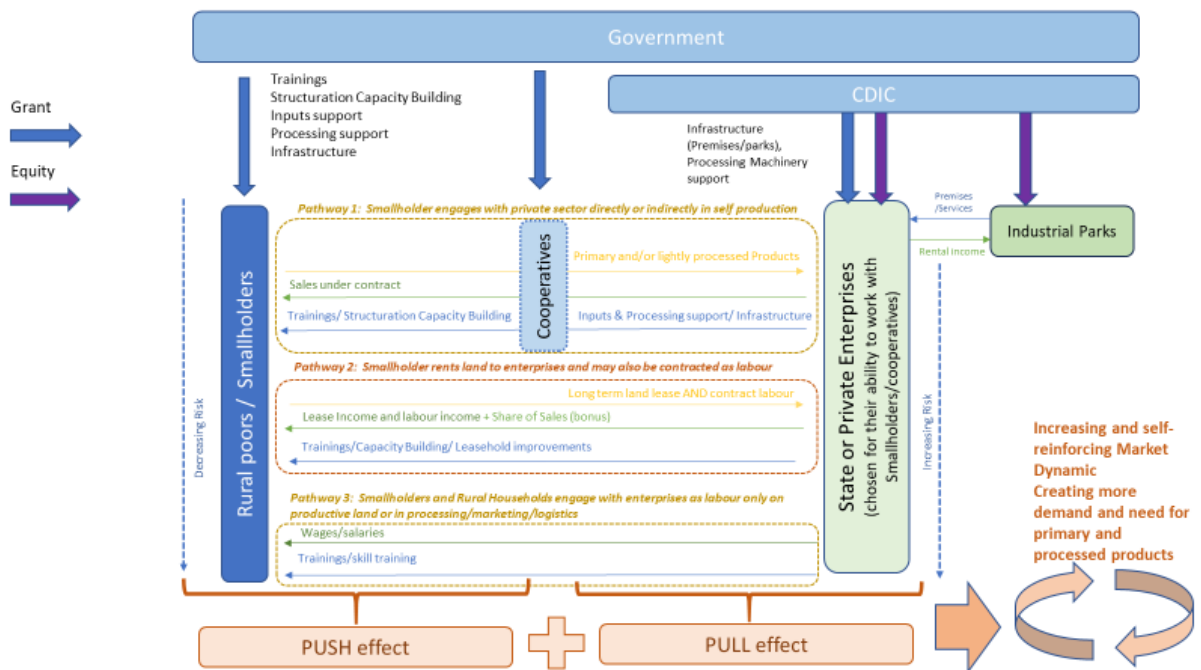
County Selection: The Hunan Green Development Project (HGDP) will be a six-year project which will cover seven counties in the Hunan Province. The counties will include Taojiang, Hengshan, Yanling, Pingjiang, Heshan, Yuanling and Xupu. The counties have been selected on the basis of (i) strong willingness and commitment of County Government to participate in the project; (ii) financial capacity to incur and repay the debt from BRAM resources; (iii) high potential for the production of the selected high value commodities with strong outreach to smallholders; (iv) presence of private sector enterprises willing to invest in the selected value chains; (v) risk of households relapsing into poverty, especially in the former nationally designated poor counties (four of seven counties -- Yanling, Pingjiang, Yuanling and Xupu), due to multiple factors including climate change.

Village selection. The project will continue the IFAD's core targeting approach in the country, by applying the ongoing geographic and inclusive targeting strategy in the selection of vulnerable and disadvantaged target groups. The criteria of project village selection will ensure the project targeting to the above-mentioned groups, (i) high (unmet) potential for the production of the selected high value commodities with the largest potential for outreach and benefits to smallholders; (ii) high interests of selected enterprise to expending the production; (iii) high potential for developing standard farmers' cooperative; (iv) the priority for the former poor villages; (v) the priority for the village with the potential of developing women-led and youth-led cooperatives. Furthermore, the geographic targeting will ensure that selected villages and plantations are far from protected areas or ecological red zones.

Target Group selection. The project will mainly target former registered poor households under continued monitoring, and low-income households. The project will improve their integration in value chains whether they cultivate land or not as detailed in the engagement pathways that are aligned with their priorities, assets, capacities and livelihood strategies (Annex 17). This includes enabling small-holders including those registered poor households to engage with private sector directly or indirectly in self-production through cooperatives, by renting land to the enterprises, identifying decent and safe employment and labour opportunities in production and in processing, marketing and logistics.

HGDP will additionally adopt enabling measures to work with state and private enterprises that would be chosen for their ability to work with small holders and cooperatives including those from the former poor villages.

HGDP targeting strategy will be informed by the assessment of the livelihoods, constraints and aspirations of the different target groups of which 60% of women and 30% of youth including from ethnic minorities and 10% designated poor (where relevant). Direct beneficiaries will be selected from the following socio-economic groups: (i) smallholder farmers including those designated poor, and (ii) women (including women-headed households) and young women and men in the target areas.



Smallholder farmer households in China have very small holdings with 90% of smallholders farm on less than 1 ha of land. On average, agriculture land holding in the counties varies between 0.72 mu to 1.5 mu² per person or an average of 0.93 per person or 2.47 mu per household. However, forest landholding in the counties varies between 0.73 mu to 14 mu per person or an average of approximately 5 mu per household. Table 2 below gives the land holding share of the main type of holdings in the project area. This shows that landholding by smallholders and those aggregated into cooperatives makes up 47% of the total holding and represent 72% of beneficiary households. Landholding held by private enterprise makes up 34% of the total holding and shall generate employment & waged work opportunity for 28% of beneficiary households. A majority of the direct beneficiaries of HGDP will be smallholders (72% of beneficiaries). There are three envisioned engagement pathways for project beneficiaries (see annex 16 for more details): 1. Smallholder engages with private sector (or state farm) directly or indirectly in self production; 2. Smallholder leases land to state or private enterprise farm and may also be contracted as labour and/or 3. Smallholders and poor rural households engage with private sector or state enterprise as wage earners only on productive land or in processing/marketing/logistics. Direct beneficiaries will also include those who benefit through increased sales. All will participate in the various training programmes for strengthening their technical skills and management capacity. The project will include cooperatives as a key institution for smallholder farmers and capitalize on their role as investor-owned enterprises or land-shareholding cooperatives which gives members an opportunity to earn wages, secure land rents or a share in the profits. The cooperative membership in the selected counties was reported at 55,885 households with an average membership of 23 households per cooperative. Only a small proportion of households (10%) reported being currently connected directly with enterprises. The type of beneficiaries and benefits are detailed in Annex 11.

Table 2: Type of Production Model (land aggregation) at Stage of Design (mu)

² 15 Mu= 1 Ha

	Area	(%)
State owned Forest Farm	11600	6%
Private enterprises	67200	34%
Ccooperatives	36350	18%
Individual Large Holders	26450	13%
Individual Small Holders	57900	29%
	199500	100%

Gender and Social Inclusion Strategy

Rural women are the primary agriculture labour force in the project counties due to male rural labour migration to urban areas. Overall, rural women have access to more opportunities to participate in agricultural development and community affairs and gaining **improved** social and economic status. However, with the burden of both agriculture and housework, rural women mostly gain income from on-farm production and labour work nearby. This **hampers** their opportunity to obtain knowledge, skills and information, or fully participate in decision-making in community development. Despite these challenges, rural women are eager for development opportunities locally, and their umbrella organization - Women's Federation (WF) is a grassroots agency dedicated to promoting women's rights and interests. Women-led cooperative and women-led enterprises make up 6.8% and 16.4% in the project counties. With women making up only 5.8% as household head, the cooperative membership and contracts with enterprise is normally signed under the name of the male- household head, even though women are the majority in terms of the production; and women only shared a quarter of technical training opportunities in 2022.

Rural youth are the most active force for rural revitalization, and youth account for 32.7% of the population in the seven project counties. However, due to a lack of opportunities and investment capital to earn adequate incomes in rural areas, they often migrate to urban areas for better prospects. To address this issue, some potential options could be enhancing the opportunities for creating employment in rural areas or small towns and villages by support the private sector, agricultural cooperatives and supporting entrepreneurship and agribusiness to attract and sustain youth in rural and agricultural sectors.

Gender and social inclusion (GSI). Social inclusion of poor women, youth, and different ethnic groups will be a cross cutting theme across all components of the Project. The gender transformative goal of HGDP is to increase the socio-economic empowerment of rural women including young women and women in the project areas though setting an overall outreach target at 60% women, 30% youth; and through addressing the current barriers faced by rural women in the domains of economic empowerment, in decision making, in achieving equitable workload balance and in overcoming some of the existing social norms that are currently not in favour of rural women. As part of its GSI strategy, the terms of reference of all staff will include responsibilities regarding the participation of women in all activities and components, gender focal points will be identified in the County Forestry Bureau, and a strong M&E unit to monitor and report progress, etc. The project will ensure that the activities are organized and planned in a manner that will cater to the schedules and time constraints that women face due to their domestic responsibilities. The private enterprises will be given clear targets that monitor the employment creation by gender and youth, monitor wage differentials and specify the policies that promote a supportive and safe environment for women in the workplace. HGDP will build on the evidence that the agri-processing sector prefers to recruit women in the industry. Partnership will also be established with the All-China Women's Federation (ACWF) to provide support to women in the agriculture sector and leverage complementary programmes.

In addition, a full time Gender Coordinators will be positioned in both PPMO and CPMO to oversee the implementation of the GSI strategy of the project in close collaboration with the Women's Federation (WF) who would facilitate project implementation at the local level. At county level, the WF will be assigned the role of Deputy Director of the CPMO to oversee the gender related aspects and activities of the project and facilitate and support elements that could help in transforming awareness about the positive role that women can play in rural revitalization and to create greater support for them in all decision-making forums and providing them greater access to decision-making and leadership roles, and access to assets, resources and markets. At the village level, the WF will chair the Village Implementation Group (VIG) which will include other women as its key members. The WF will also be expected to use the various HGDP platforms to publicize and create awareness about gender issues, protection of women's rights and other aspects such as gender-based violence, etc. Women's empowerment will be achieved via economic empowerment, improved decision making and representation, and providing equitable work load balance through ensuring:

- At least two women-led cooperatives will be supported in each county, which will be closely supported by the Women's Federation at the county level. Support to the women-led cooperatives will include developing inclusive & sustainable production management plans; and priority support to women-led enterprises for engagement with the Private Sector by assisting them in negotiating better terms of engagement with markets and private enterprises.
- In the project supported cooperative, women share $\geq 50\%$ of membership, and at least two women will be present in the board of cooperatives. Women's membership and leadership in the cooperatives would be a determining criterion to access project support to the cooperatives. Further, women leaders in these cooperatives would be supported through targeted leadership skills trainings to enhance their leadership skills and to ensure an enabling environment for women members and women leaders in these spaces, gender and social inclusion trainings will be conducted.
- To increase women's agency, the project will ensure that $\geq 50\%$ of contracts between smallholder farmer households are signed by women solely or jointly with the household head. This would be achieved through the implementation of gender transformative approaches such as household mentoring in collaboration with the Women's Federation.
- To increase women's economic empowerment, the project will ensure that $\geq 50\%$ of employment opportunities created by the project shall be shared by women. This would entail decent waged labour opportunities in the private enterprises supported by the project. To ensure women's safety in the work place, the private enterprises supported by the project will need to strictly implement their workplace safety policies including sexual harassment policies. The project will also invest in skills development for interested women in collaboration with provincial and county technical and vocational skills training centers to enhance their employability in better paying jobs within the private enterprises.
- To ensure that the income from cooperative, contract and employment of the project will equally benefit women, the project in collaboration with the WF will put in place mechanisms and employ strategies at different levels through the use of quotas for women's employment, ensuring women's name on the agreement contracts, use of quotas for women in leadership positions within the cooperatives, investing in household mentoring to change household social norms that currently do not favour women, investing in increasing gender and social inclusion knowledge and support of project implementers and community, etc.
- Gender awareness building will be integrated in the project management trainings for project management staff at all levels.
- Rural enterprises, including state enterprises involved in the HGDP will be required to offer special opportunities to young women for employment.
- Priority will be given to women-led enterprise to access support and benefit from the project initiatives.

HGDP will pay particular attention to the **empowerment of women** by: (i) expanding their access to and control over resources; (ii) strengthening their agency, decision-making role in community affairs, and representation in local institutions; and (iii) building on their untapped potential for sustainable development.

IFAD will collaborate with the Youcheng Foundation for Poverty Alleviation, with whom it signed a letter of intent in June 2022, outlining their collaboration and joint commitment to promote rural revitalization. As part of the partnership, the Youcheng Foundation will support IFAD and its implementing partners in Hunan, particularly the Women's Federation and Communist Youth League to increase rural women's economic empowerment, support rural youth entrepreneurship and improve the profitability of small and medium-sized enterprises in rural areas building on the effective models and best practices in revitalizing rural areas with a focus to stimulate backward migration – especially of the youth. This would be achieved by implementing the government's Medium and Long Term Youth Development Plan (2016-2025) that puts emphasis on employment and entrepreneurship of youth which includes a series of development measures for employment and entrepreneurship of youth including (i) improvement of the policy system for promoting youth employment and entrepreneurship, (ii) strengthening youth employment services, (iii) strengthening youth employment services and promoting youth to engage in entrepreneurship practice, (iv) strengthening the protection of youth employment rights and interests. Youth Employment Internship Program is implemented to promote youth employment training and management, and provide subsidies and support for youth participating in employment internships.

Youth empowerment will be achieved via the following pathways: a) creating employment opportunities along the selected value-chains; b) tailored support to young men and women agri-entrepreneurs with access to business packages, including agri-entrepreneurship and enterprise related production training, access to special loans and mentorship; c) increasing youth participation in decision making in VIGs and rural enterprises. Additionally, HGDP will assign the task of coordinating opportunities for youth through assigning a **youth coordinator** in both the PPMO and CPMO, who will be responsible for the project's youth empowerment initiatives in close coordination with the Communist Youth League to ensure the effectiveness and efficiency of youth participation and empowerment through the project. At county level, the CYL will be expected to work closely with the PMO on supporting project activities related to youth and coordinating the participation of youth associations and related platforms to encourage youth participation.

At the village level, CYL will help the project to leverage other opportunities for entrepreneurship and employment of rural youth. Some specific measures that will be undertaken include the following.

- To increase economic empowerment of youth in the project areas, a proactive policy of hiring young men and women will be promoted for both production and processing in the three selected value chains. The share of youth will be targeted at 30% of employment opportunities facilitated by the Project. This would entail decent waged labour opportunities in the private enterprises supported by the project. To ensure young women's safety in the work place, the private enterprises supported by the project will need to strictly implement their workplace safety policies including sexual harassment policies. The project will also invest in skills development for interested youth and women in collaboration with provincial and county technical and vocational skills training centers to enhance their employability in better paying jobs within the private enterprises.
- To increase young farmers' agency, the project will ensure that young farmers have at least one seat for representation at VIG. Further, youth leaders in these cooperatives would be supported through targeted leadership skills trainings to

enhance their leadership skills. To ensure an enabling environment for women and youth members, women and youth leaders in these spaces, gender and social inclusion trainings will be conducted.

- Priority will be given to youth-led cooperatives. Support to the youth-led cooperatives will include developing inclusive & sustainable production management plans; and priority support to youth-led enterprises for engagement with the Private Sector by assisting them in negotiating better terms of engagement with markets and private enterprises.
- Rural enterprises involved in the HGDP will be required to offer opportunities to young men and women for employment. This would be a determining criterion to access project support to the rural enterprises.

This expectation is supported by the evidence of the large number of young women already employed in the processing of bamboo shoots and Chinese herbs and plants. The use of increased digital technologies in these industries is attracting more young people.

Ethnic minorities are well integrated into the mainstream society in China, and the government provides preferential policies and support to them in social, cultural, and economic development compared to the majority of Han population. The ethnic minorities in the project area are also well integrated in the existing socio-economic context in the project area and have livelihood strategies similar to those of the other rural populations. They are not excluded from existing economic opportunities, are not discriminated against, and do not have distinct needs from the rest of the population.³ In the seven project counties, the ethnic minorities make up only 7.2% of the total population. The minority community is found in only two counties with 75% in Yuanling County and another 19.8% in the Xupu County. Tujia, Yao and Miao are major ethnic minorities in Yuanling and Xupu counties. The development needs of ethnic minorities in the project area are also expected to benefit from the opportunities provided by the HGDP through the rural transformation **based on** the private sector led green growth model.

³ Working paper: Social Environment in Context of Poverty, Targeting, Gender and Youth.

China

Hunan Green Development Project

Project Design Report

Annex: Annex 17 Rural Poors Smallholders Pathways For Engagement With Enterprises

Mission Dates: 21/10/2023-04/11/2023

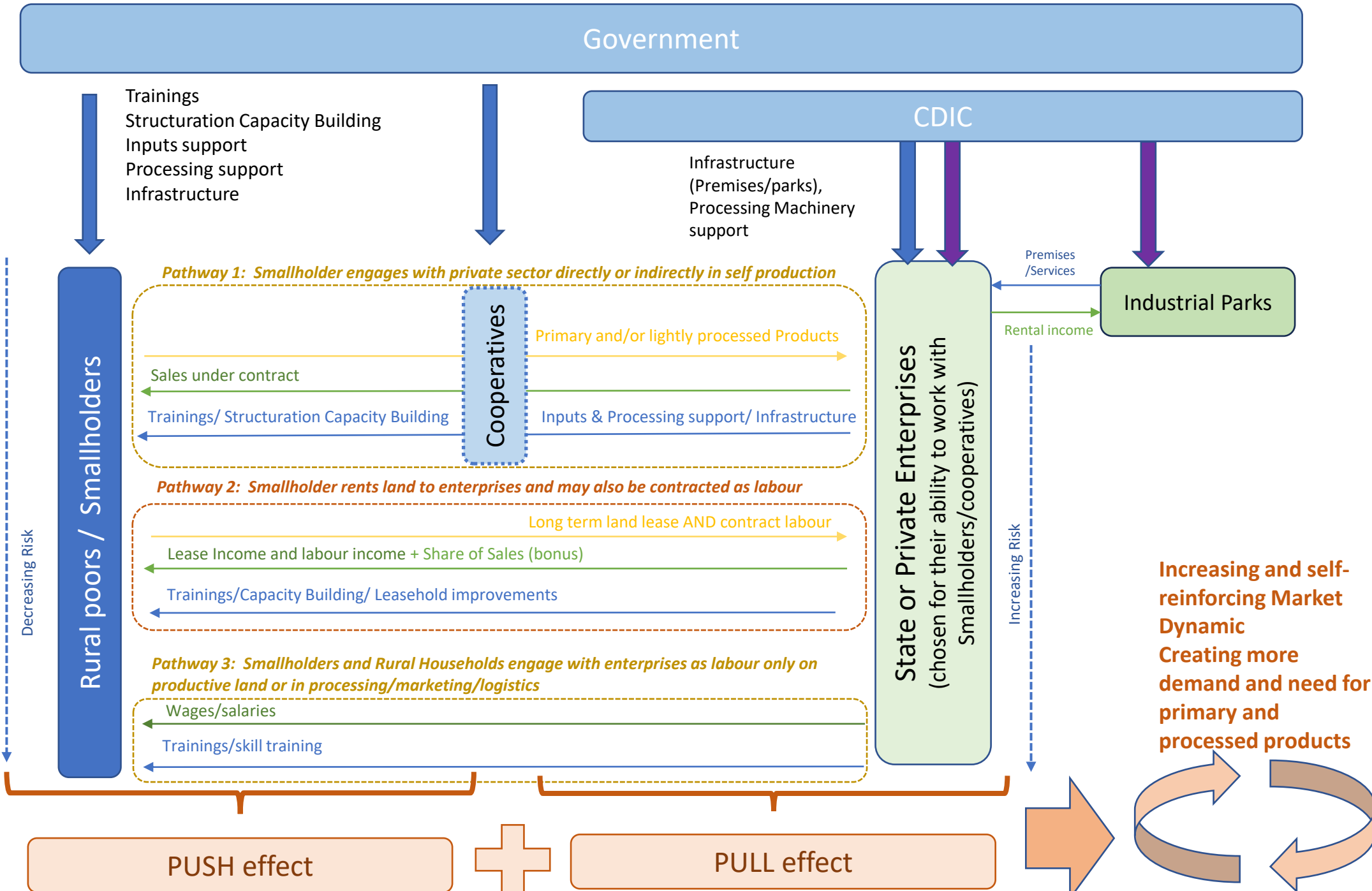
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Project Design Report

Annex: Annex 18 Carbon Accounting And Marketing Opportunities For The Hunan Project

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Carbon Accounting and Marketing Opportunities for the Hunan Green Development Project (HGDP)

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1. INTRODUCTION

This note summarizes the feasibility analysis for the carbon accounting and marketing opportunities, and proposed activities in the project, in the context of China.

2. CARBON MARKET

2.1 Domestic carbon markets and trading schemes

Carbon trading is getting more and more attention in China, especially as the target of “carbon peaking by 2030 and carbon neutrality by 2060” has been set.

China's carbon emission trading market follows the rules of the mandatory market and quota market. Using the “cap-and-trade” model, the key emission units included in the mandatory system are required to set carbon emission caps (total quota), to emit greenhouse gases (GHG) within the quota range and allow quota trading. Currently, only the power generation sector is covered by the mandatory carbon trading market, covering 4.5 billion tons of carbon emissions. It is expected that the eight sectors including power generation, iron and steel, nonferrous metals, petrochemicals, chemicals, building materials, papermaking and aviation which covered around 80% of CO₂ emission of China in 2020, will be gradually covered by the mandatory carbon market during the 14th Five Year Plan period (2021-2025).

The seven provincial (municipal) carbon emission trading pilots in Beijing, Tianjin, Shanghai, Chongqing, Guangdong, Hubei and Shenzhen were launched in 2011, and began to operate from 2013 to 2014. In December 2016, Fujian carbon emission trading market was launched, becoming the eighth regional market pilot. For these markets, the dominant is carbon quota trading with certified emission reduction trading as a supplement. Due to the significant differences in economic development level, energy consumption structure, and carbon market system design among pilot regions, their trading volume, transaction amount, and transaction price have shown significant differences. **However, Hunan province is not part of the pilot trading yet, and shouldn't integrate a pilot scheme soon.**

The *Interim Measures for the Administration of Carbon Emission Trading* issued in 2014 established the overall framework of the national carbon market. China's Certified Emission Reduction (CCER) was established as the supplement of the abovementioned mandatory carbon emission trading market ([figure1](#)). The emitters can use CCER to offset the carbon emission at a certain percentage (5-10% per the regulations) of the allowances. This is a very important **link mechanism** between the mandatory carbon trading market and the voluntary carbon emission reduction market. **Given the expectation of the inclusion of more sectors to the mandatory trading market, it is expected that CCER will play a more and more important role in the future.**

Forestry is an important part in CCER. According to China's voluntary emission reduction trading information platform, as of March 2017, a total of 97 forestry CCER projects were developed over the country, including 67 afforestation carbon sequestration projects, 24 forest management carbon sequestration projects, 5 bamboo afforestation carbon sequestration projects, and 1 bamboo management carbon sequestration project. At present, the CCER forest carbon sink projects are mainly concentrated in the northeast state-owned forest areas and the southern collective forest areas of China.

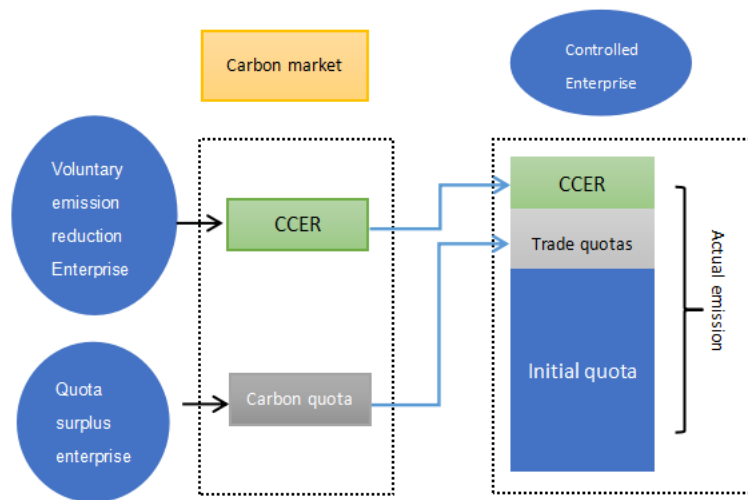


Figure 1: CCER Transaction mechanism diagram

In addition to above national-level CCER transactions, there are also some regional carbon emission reduction transactions in China at the regional pilot level, including Beijing Forestry Certified Emission Reduction Project (BFCER), Fujian Forestry Certified Emission Reduction Project (FFCER) and Guangdong Provincial Forestry Generalized Certified Emission Reduction Project (PHCER). Beijing has been taking the lead in the development of forestry carbon sink offset projects. Fujian Province has given full play to its advantages in rich forest resources and innovatively launched Fujian Forestry Carbon Sink (FFCER) that can be traded in the pilot carbon market of Fujian Province. It is important to note that CCER are traded in the national carbon market. Any province including Hunan can develop forest carbon project to produce CCER and trade it in the national carbon market, based on the methodologies and regulations issued by the Ministry of Ecology and Environment.

In March 2017, due to the small volume of greenhouse gas voluntary emission reduction transactions and the lack of standardization of individual projects, the National Development and Reform Committee (NDRC) postponed accepting the application of greenhouse gas voluntary emission reduction methodology, CCER projects, emission reduction, approval and certification institutions, and trading institutions. **In December 2020**, the Government issued the *Interim Measures for the Administration of Carbon Emission Trading (for Trial Implementation)* which proposed that key emission units can use national certified voluntary emission reductions to offset the payment of carbon emission quotas every year, and the offset proportion should not exceed 5% of the carbon emission quotas that should be paid. **On May 14, 2021**, the Ministry of Ecology and Environment issued the *Management Rules for Carbon Emission Right Registration (Trial)*, the *Management Rules for Carbon Emission Right Trading (Trial)* and the *Management Rules for Carbon Emission Right Settlement (Trial)*, which pointed out that the implementing units of renewable energy, forest carbon sink, methane utilization and other projects can apply for offsetting the greenhouse gas emission reductions generated by their projects in the carbon market.

On October 19, 2023, the Ministry of Ecology and Environment issued the *Management Measures for Voluntary Greenhouse Gas Emission Reduction Trading (Trial)*. **On October 24, 2023**, the Ministry of Ecology and Environment issued a notice on the issuance of four methodological issues, including the *Methodology of Greenhouse Gas Voluntary Emission Reduction Projects - Afforestation Carbon Sink (CCER-14-001-V01)* and etc., which clarified that afforestation carbon sink, grid connected solar thermal power generation, grid connected offshore wind power generation, and mangrove cultivation were among the first batch of methodologies, and standardized the design, implementation, validation, and emission reduction accounting and verification of national voluntary greenhouse gas

reduction projects. For the moment, the new set of methodologies for developing CCER projects covers afforestation activities, **but** the activities of sustainable forest management covered by the project are not included.

Forest carbon sink as included in the CCER, will bring new development opportunities for carbon forestry after the reopening of CCER market. From the perspective of the current major trading pilot policies, each pilot market uses CCER as the carbon emission offset indicator, but the offset proportion is different, ranging from 5% to 10%. In addition, some pilots have some restrictions on CCER project area, project type, time, etc. Overall, the major pilot projects are inclined to the CCER forest carbon sequestration project due to the co-benefits from forests. The market demand for reopening the CCER is high. With the launch of more and more related regulations and documents in the second-half year of 2023, CCER is expected to reopen by the end of 2023, but till now it is still on the way with uncertainties. Even though the uncertainty, it is important to get prepared for carbon forestry development considering the significant role of forests in contributing to carbon neutrality target in China.

In addition to the CCER schemes in the national level, the market for voluntary carbon credits is maturing and demands for trusted carbon credits by enterprises and entities who wish to reach carbon neutrality for their activities will increase significantly. As the development of high-quality carbon sequestration projects to produce CCER is demanding, supply is unlikely to catch up with demand. To develop a voluntary carbon market supplementary to the compliance carbon market of CCER will support achieving carbon neutrality in China. Local schemes have been developed by some provinces and carbon-related institutions. Among which, the forest carbon ticket and carbon inclusive schemes are most promising ones. The forest carbon ticket scheme was originated in Fujian Province, and has afterwards been applied in other cities/provinces such as Bijie County of Guizhou Province.

The carbon inclusive scheme was originated in Guangdong pilot and has been applied in other regions such as Zhejiang Province. According to the newest policy document '*Plan of Deepening the Reform of the Collective Forest Tenure System*' issued by the central government, it is encouraged to explore the implementation of the forest carbon ticket scheme, formulate forest carbon sink management measures, and enable carbon emitting enterprises, large-scale event organizers, and the public to fulfil their social responsibilities by purchasing forest carbon sink. In this case, there is higher opportunity to advance in forest carbon credit methodology at local levels or even national level.

A brief comparison between forestry CCER, carbon ticket, and carbon Inclusive schemes is presented in table 1. Both CCER and carbon inclusive schemes are under the administration of national- or local- ecology department, while forest carbon ticket scheme is under the forestry department. Compared to the CCER projects, the development cost of carbon inclusive and carbon ticket is relatively low because of the lower data requirement and simplified procedures in administration. However, the carbon price under CCER is higher than the prices of carbon inclusive and carbon ticket. Moreover, the baseline setting of carbon ticket and carbon inclusive schemes are "simplified" compared to the CCER. For example, for the forest carbon ticket scheme, the baseline of forest carbon project is set almost as "zero", which means the carbon emission reduction produced is equal to the difference in carbon storage at the end and beginning of the forest carbon project. However, this is criticised often that it does not fulfil the principle of additionality.

Overall, the national carbon markets and schemes are promising for forestry carbon projects in China. Especially, the CCER has the most potential for forestry carbon projects, since the national carbon market will hold the largest transaction volume of carbon trading and CCER trading compared to all the voluntary carbon markets in China. However, it is

important to be aware of the uncertainties of CCER since it hasn't been fully relaunched after having stopped accepting new projects in 2017. There are still some regulations pending, such as those addressing carbon project validation and verification of carbon emission reduction, who are qualified to work on validation and verification, how to regulate them etc. In addition, when and if a new methodology on forest management would be issued is still uncertain. **Hence, targeting CCER while also working on other possible local carbon trading schemes would be a better strategy for Hunan project.**

2.2 International carbon markets related to forestry carbon

China's forests have mainly involved in the three international carbon markets and schemes including CDM (Clean Development Mechanism), VCS (Verified Carbon Standard) and GS (Golden Standard), to some extents. Among those, carbon credits under CDM from China projects were not accepted by EU after 2012, hence CDM scheme does not work for the forest carbon projects of China at this moment. After 2017, some forestry carbon projects have been developed for VCS in China. However, the carbon volume and the number of projects are still very limited due to the qualification of land, the complexity of project development and carbon sink monitoring and verification, high development costs, and unpredictable benefits etc.. There is a very limited number of forestry carbon projects developed for GS so far, and there is no carbon credit generated. A brief comparison between VCS and other domestic carbon trading schemes are listed in table 1.

Overall, the international carbon markets are not very promising for the forest carbon projects development in China, considering the status quo of China's forestry carbon projects developed for international carbon markets, and the impacts of international carbon trading on the implementation of Nationally Determined Contributions according to Article 6.4 of the Paris Agreement. Hence, the international carbon markets would not be the main target of the carbon sequestration developed in this Project.

Table 1: The main forest carbon trading schemes in China

Trading Scheme	Trading scale and regions		Administrative agency	Activities (methodologies) covered	Baseline	Monitoring data sources	Project development cost	Carbon price
CCER-China Certified Emission Reduction	National		Ministry of Ecology and Environment	Afforestation (2023.10)	Land use as before	Field investigation specifically for the project (assisted by Airborne LiDAR data)	High	High
				Forest management expected in 2024	Management as usual	Field investigation specifically for the project (Expected)	High	High
Carbon Ticket	Local	Fujian, Guizhou, Yunan, Anhui, Zhejiang provinces etc.	Local Forestry Bureau	Afforestation / reforestation/ forest Management	Zero	Sub-compartment-level forest inventory data, and continuously- updated and documented forest resources data	Low	Low
Carbon Inclusive	Local	Guangdong Sichuan etc.	Local Ecology & Environment Department	Afforestation /reforestation/ forest management	Average forest carbon level by prefecture-level city and by land-development classification (Guangdong) By prefecture-level city and by species (Sichuan)	Sub-compartment-level forest inventory data; and continuously updated and documented forest resources data	Low	Low

Trading Scheme	Trading scale and regions	Administrative agency	Activities (methodologies) covered	Baseline	Monitoring data sources	Project development cost	Carbon price
VCS	Global	—	Afforestation/ reforestation	Land use as before	Field investigation specifically for the project	High	High
			Improved Forest Management	Management as Usual	Field investigation specifically for the project	High	High

2.3 The status-quo and potential of forestry carbon in CCER

2.3.1 Forest carbon project methodologies and registered forestry projects

Until 2017, there were four approved forest methodologies in CCER including afforestation, forest management, bamboo afforestation, bamboo management, for carbon sink, that had been developed. However, as we mentioned before, the National Development and Reform Committee (NDRC) suspended accepting the application of greenhouse gas voluntary emission reduction methodology and CCER projects etc. in March 2017. Then in late October 2023, the revised regulations for greenhouse gas voluntary emission reduction transactions were just announced, which set some new timeline requirements such as the start time of qualified projects and their emission reduction calculation. According to this new regulation, all the old methodologies don't work anymore and have to be reviewed and revised to meet new requirements in the context of the "carbon peaking by 2030 and carbon neutrality by 2060" target.

In the late Oct. 2023, the first set of four new methodologies were launched, including the methodology of afforestation for carbon sequestration. However, there are limited forests that could fulfil the requirement of both the new CCER afforestation methodology and the new regulation. For example, new CCER afforestation methodology is applicable for afforestation of trees, bamboo, and shrubs, including protective forests, special purpose forests, timber forests, etc., but excluding economic forests (such as apples, pears, coffee, tea trees, *Camellia oleifera*, etc.), passage greening on non-forest land, urban and mining land greening. In addition, afforestation carbon projects using this methodology must also meet other necessary conditions, such as: the project land must be a planned forest land that does not meet the definition of forest for at least three years before the start of the project; The land ownership of the project must be clear and can be proved; The continuous area of a single plot of land in the project shall not be less than 400m²; The project land does not belong to wetlands; The project will not remove the original scattered trees and bamboo; Except for land preparation and afforestation at the beginning of the project, no repeated soil disturbance will be carried out during the calculation period; The project should comply with legal and regulatory requirements, as well as industry development policies and etc. In addition, according to the new regulation, the afforestation carbon project applied for registration should start construction after November 8, 2012, and the generation time of emission reduction should be after September 22, 2020, and the generation time of emission reduction for projects applying for registration in instalments should be within 5 years before the registration date of each application.

However, the methodology for improved forest management is not included and it's still unsure when a methodology for improved forest management will be launched and how strict the methodology will be. This brings uncertainties to

develop forest carbon trading project through improved bamboo forest management and Camelia plantation management proposed in this Project. Nevertheless, given the importance of forest management methodology and the schedules of CCER market, the forest management methodology is expected to be launched in the next year (2024). If this happens, it could well fit the timeline of this project which is scheduled to start in 2024. However, it is important to be aware of the potential uncertainties. In addition, carbon sequestration through bamboo plantation management is of significant importance in responding to climate change in the field of forestry in China and Hunan. Bamboo carbon credit methodologies were developed under the old CCER scheme, including bamboo afforestation carbon sequestration methodology and bamboo management carbon sequestration methodology respectively. While under the new CCER scheme, bamboo afforestation carbon sequestration has been integrated into the new CCER afforestation methodology with specific method on carbon monitoring and accounting for bamboo forest. It is expected that the bamboo management carbon sequestration will be integrated into the new forest management methodology probably. Comparing to the old CCER afforestation methodology, the new CCER afforestation methodology made several changes besides the above-mentioned, including the applicable conditions, the exemption from argumentation for additionality, new definitions given for afforestation, reforestation, forests, bamboo forests, ecological public welfare forests, and economic forests and etc.

According to China's voluntary emission reduction trading information platform, as of March 2017, a total of 97 forestry CCER projects were developed using the old methodologies over the country. Those include 67 afforestation carbon sequestration projects, 24 forest management carbon sequestration projects, 5 bamboo afforestation carbon sequestration projects, and 1 bamboo management carbon sequestration project.

At present, the CCER forest carbon sequestration projects are mainly concentrated in the northeast state-owned forest areas and the southern collective forest areas of China. Based on the data of the project design documents (PDDs) of the 97 forest CCER projects, in general the annual average carbon sinks are calculated as 16.62t CO₂e/ha by the afforestation carbon sequestration projects, followed by the bamboo afforestation carbon sequestration projects 9.35t CO₂e/ha, and then bamboo management carbon sequestration projects 6.14t CO₂e/ha, and then forest management carbon sequestration projects 5.01t CO₂e/ha.

2.3.2 Forest carbon potential and potential buyers

According to the official release, by 2060 the national carbon emissions is projected to be about 2.5-2.7 billion tons. And the forest and grass carbon sink will reach to 1.5 billion-1.8 billion tons, contributing more than 60% to the achievement of national carbon neutrality target. From this point of view, forest

and grass carbon sequestration is irreplaceable with the great potential and is the ballast for the country to achieve carbon neutrality.

As to the potential buyers, they should be from two sources. The first is from the mandatory carbon emission right trading market to purchase the CCER forest carbon credit to offset their over-emissions. With more and more sectors (till eight sectors we mentioned before) covered into the mandatory carbon emission trading right market, around 80% of CO₂ emissions of China would be included. Hence, there will be very strong demand to use CCER forest carbon credit for the offsetting. The second source of the potential buyers is the voluntary market where some companies/organizations would like to purchase the carbon credit to offset their emissions to be a “net-zero” or “low carbon” company. As the return, they would get more favours of the consumers, and of the investors/banks who have the “green” investments/loans. This source also includes the individuals who will buy the carbon credits to voluntarily offset their daily carbon emissions. **Overall, with the further economic development of China, the potential buyers from both sources to buy the forest carbon credits will be increasing.**

2.3.3 Forest carbon project development procedures

The specific procedures of forest carbon project development vary depending on the trading schemes and markets. However, they are usually consistent in terms of the underlying logic. The procedures are usually consisting of the validation and registration of the project and the verification of emission reduction.

The CCER carbon project development procedures can be used as an example. Generally, there are six steps to develop a forest carbon project under CCER (table 2). The project owner is responsible to prepare the project design document including land eligibility requirements, additionality justification and carbon sink emission reduction measurements. Then the third-party validation organization takes the responsibility for the validation of the project, and the Ministry of Ecology (the corresponding administration agency) registers the project. Afterward, the carbon emission reduction from the project is monitored. After a few years, the third-party organization verifies the amount of the carbon emission reduction, then gets the verified amount submitted to the Ministry of Ecology (the corresponding administration agency) for issuing the carbon credit. After all these procedures, the issued carbon credit can go to the CCER market for trading.

Table 2: *The general procedures of forest carbon project development*

Items	Project owner	Third-party organization for validation and verification	Ministry of Ecology
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Forest carbon project	Step 1: Project design	Step 2: Project validation	Step 3: Project registration
Carbon-emission reduction	Step 4: Monitoring	Step 5: Verification of the emission reduction	Step 6: carbon credit issue.

2.4 Forest carbon project development potentials and issues in Hunan

With the forest coverage rate of close to 60% and biomass volume of more than 600 million cubic meters, **Hunan has a great forest carbon potential**. According to the local estimation, the forest and bamboo resources in Hunan can sequester 150 million tons CO₂-e per year¹.

With the great forest carbon potential, **Hunan has prepared for several years and laid a good foundation** in forest carbon project design (PDD), carbon monitoring, and accounting. In specific, the Hunan Forestry Investigation and Design Institute has good experiences in developing CCER projects, including implementation of PDD for 18 state farms in 2017 and ongoing work on carbon survey for CCER in Jindong State-owned Forest Farm. The Hunan Forestry Academy had conducted preliminary work on the parameter list of forest carbon accounting and developed a preliminary carbon methodology (without the consideration of trading schemes). The Hunan Forestry Bureau has also developed an online system specifically for forest carbon management. In Hunan, there was a case on forest carbon credit transaction in Yongxing County, via a point-to-point transaction way. Through the signing of a forestry carbon sink transaction agreement between Yongxing County Forestry Bureau and Hunan Senhai Carbon Sink Development Co., Ltd. in the early stage, the company has now paid more than one million yuan in transaction funds, marking the completion of Hunan's first collective forest carbon sink transaction in Yongxing County.

In addition, Hunan Forestry Academy has established a company as the provincial-level carbon sink platform for promoting forest carbon project development and carbon credit trading.

However, the average volume (cubic meters per hectare) of forests in Hunan is just 70% of that of forests in China. That means that there is still a big potential to improve the forest quality in Hunan. The improved forest and bamboo management is the necessary way for the Hunan to improve the forest quality as well as forest carbon sink.

¹ <https://moment.rednet.cn/pc/content/2022/03/10/10995086.html>

Based on our on-site study and the following analysis, there are still some issues of the forest carbon development in Hunan.

- a) There are almost no forest areas and activities in the Hunan Project that could fulfil the requirement of the new CCER afforestation methodology in project areas, while it's still unsure when the methodology for improved forest and bamboo management will be launched (hopefully in 2024) and how strict the methodology will be. The NFGA probably participates in the decision-making on forest carbon trading at national level, which is good to promote carbon sequestration through afforestation, improved management and harvested forest products.
- b) Regarding the provincial carbon sink platform, the business scope of the provincial-level platform company needs to be further clarified, the profit model needs to be further developed to clearly identify the profit sources, and its own technical resources need to be improved. The relationship between the provincial-level platform and the county-level platform still needs to be further clarified. According to the field study, the benefit sharing will be 20% for the provincial platform, no more than 30% for a county-level provincial platform, and no less than 50% for the forest owners. However, in the new CCER-afforestation methodology, it "encourages to share no less than 90% of benefit to forest owners". The work of the Provincial Carbon Sink Platform is restricted to carbon sink and storage in the forest. It is also not the agency for access to the dynamic carbon market in China including voluntary carbon markets. In this context, it would be good for the Project to collaborate and networking with the highest-profile institutions or project like the one financed by the KfW under development that are able to participate in forest carbon methodology development and trading.
- c) Regarding the carbon trading schemes, (1) Hunan is fully focused on CCER, without much consideration for developing other local schemes. That needs to be reconsidered, to diversify the carbon trading schemes just in case unexpected situations happen in CCER. (2) The harvested forest product for long-lasting wood buildings still rarely exists at this moment, and Hunan hasn't considered the carbon stock in harvested forest products. Even the name of the Provincial carbon sink platform is too restricted to cover the full potential of climate mitigation. (3) Since sequestration in bamboo forest and in stored bamboo products is important in Hunan and as the project will measure carbon sequestration, the Project will explore the carbon footprint labelling for the major bamboo processing products to promote the development of the local forest product industries in the context of the low-carbon development. Based on the investigation of the value-chain products and their carbon emissions, the major products will be selected for developing their carbon footprint accounting methodology, which will

then be applied to calculate the product carbon footprints and set carbon labels through collaborations with the companies who are willing to apply carbon labelling.

3. NEW HORIZON - 3S (SINK, STORAGE, SUBSTITUTION)

In addition to the carbon sink that benefited from a lot of attentions in China, carbon storage in forest products and the carbon substitution of carbon-intensive materials with wood/bamboo products are also very important. Hence, that's very important to develop a new horizon-**3S, covering carbon sink, carbon storage, and carbon substitution of forest-based resources**, to further help China achieve the carbon neutrality target.

Timber products can replace high carbon emission products such as steel, aluminium, plastic or other materials. The overall carbon saving substitution effect of the use of forest products will be high. The building sector contributes to 25% of the GHG emissions in China. Engineered wood is revolutionizing the massive timber construction by substituting or combining with concrete and steel systems. Types of mass timber relevant in Hunan are: Cross Laminated Timber (CLT), Cross Laminated Bamboo (CLB) and Hybrid Cross Laminated Timber (HCLT), Bamboo-wood Composite Cross Laminated Timber (CCLT). Combining bamboo and wood creates synergy for bonding and material property and takes advantage of the cheaper and abundant bamboo resources.

In China, the CTL market and building started in 2011. Breakthrough has been achieved with Bamboo Laminated Timber (BLT). There is advance in R&D of Bamboo-wood Composite and product standards of CLT are gradually established and improved. The production and construction of CLT are in the stage of development; development and production of HCLT using fast-growing wood, bamboo or wood-based panels is important for the CLT development in China.

Managed forest plus timber mitigates climate change: Net cradle-to-gate carbon storage of finish CLT is around 800 kg CO₂ eq /m³; and for Cross Laminated Bamboo (CLB) even 1.600 kg CO₂ eq. The GHG production of one MT concrete is around 1 ton of CO₂; and for steel 1 to 4 ton respectively. According to the estimation from NFGA, replacing the same amount of concrete with 1 cubic meter of wood could reduce CO₂ emissions by 0.8 tons. Timber Finance is currently developing the methodology under an International Carbon Reduction and Offsetting Accreditation (ICROA) standard. In this process, Timber Finance measures carbon storage at the permanent storage location in the building, which meets the requirements of carbon removal technologies. In the following months Timber Finance will start the pilot phase in the DACH market (GK: Germany, Austria and Switzerland). The goal is to adapt the global methodology to specific markets and develop a customer-friendly Monitoring,

Reporting and Verification (MRV) system (see DFS Gap analysis) report August 2023).

However, the harvested forest product for long-lasting wood buildings still rarely exists at this moment, and Hunan hasn't considered the carbon storage and substitution of harvested forest products. However, there is a village (Xinzhaiping) in Hunan demonstrating the possibility of wood buildings in rural areas substituting the steel-concrete buildings.

Harvested forest/bamboo product (HFP) is an important carbon pool for the carbon forestation project. However, existing domestic methodology research on HBP carbon storage measurement, monitoring, and verification is not yet mature and lacks systematisation. It is also worth exploring the carbon footprint labelling of major forest/bamboo products, considering the "Carbon Label" (cf section 5 below) may become a global product label and a "passport" for the import and export of goods in the long run.

4. EFFECT OF FOREST AND BAMBOO MANAGEMENT ON CARBON SEQUESTRATION

4.1 Forest management

Forest management could affect forest characteristics, hence affecting the quality and quantity of ecosystem services (including carbon sequestration) a forest provides to society. Trade-offs and synergies among the various forest goods and services are key issues in forest management. In China, NFGA has realized that the forest quality is relatively low, there is still a big potential to improve the forest quality via the implementation of appropriate forest management. Close-to-nature forest management originated from Europe has been well recognized as effective to improve the forest quality with the enhanced provision of multiple ecosystem services, especially timber production and carbon sequestration.

In China, there has been a lot of studies indicating that converting monoculture forests to mixed multiple-layer forests via appropriate forest management measures is very helpful to enhance the carbon sequestration capacity of forests. It has been pointed out that forest management is one of the key actions that should be taken by the forest sector to advance the carbon neutrality.

According to a published study on how silvicultural options affect the timber production and carbon sequestration in subtropical China², a stand-level integrated analysis framework applying the dynamic forest simulator and

² Zhang, X., Wu, S., Liu, S., Zhang, X., Lexer, M., Zhang, P., Zou, J. (2022). The effects of species-composition oriented silviculture on timber value and carbon – a stand-level case study in subtropical China. *Australian Forestry*. 85(1), 13-24.

techno-economic analysis was developed to assess the effects of a range of forest management silvicultural options on timber value and carbon sequestration in subtropical China. Taking *Pinus massoniana* and *Castanopsis hystrix* to represent dominant native conifers and broadleaves, respectively, in subtropical China, five typical forest management silvicultural options were studied: *P. massoniana* monoculture with normal and high density (stems ha⁻¹); *C. hystrix* pure stands; and even-aged and uneven-aged mixtures of both species. Results indicate that the uneven-aged mixture performed better in carbon sequestration than the other four options. The even-aged mixture showed better combined benefits of timber production and carbon sequestration and additional advantages in balancing long- and short-term benefits over 50 years. Furthermore, the even-aged mixture had the strongest adaptability to market fluctuations. The uneven-aged mixture performed best economically among the five options in scenarios of future higher timber prices. In addition, it's also pointed out that the intensive ecological thinning probably reduces the carbon stock of the forest stand in a short given period, if we don't consider the carbon associated with the removed harvested timbers.

4.2 Bamboo management

Bamboo forest have the characteristics of fast growth and regeneration, strong carbon sequestration ability, sustainable cutting, etc. It is an ideal forest carbon sink species, and its carbon reserves account for 2.54% of the national forest carbon reserves. In 2018, the carbon storage of bamboo vegetation, soil, and ground layer reached 448.30 Tg C, 396.75 Tg C, and 11.20 Tg C, respectively. The carbon storage of bamboo products also increased gradually, with the storage and emission being 55.33 Tg C and 1.70 Tg C, respectively. The total carbon storage of China's bamboo industry in 2018 is 909.88 Tg C³.

Bamboo is an important forest resource in China, and it is also the bamboo species with the widest distribution and the largest area in China. Bamboo forest resources have natural advantages in increasing sinks and reducing emissions, and its carbon sink management can also bring carbon sink income to bamboo farmers.

Studies have shown that intensive management⁴ of bamboo forest can improve the carbon sequestration ability of bamboo forest, and the carbon sequestration amount of vegetation layer of intensive management of bamboo forest is 1.56 times that of extensive management. After 10 years of intensive

³ Zhang, X., Lu, J., Zhang, X. (2022). Spatiotemporal Trend of Carbon Storage in China's Bamboo Industry, 1993-2018. *Journal of Environmental Management*. 314.

⁴ Intensive management means more active and positive management to promote productivity and improve quality following scientific based guidelines. Extensive management is more relying on increasing input in production factors, such as increasing investment, expanding factories, and increasing labor input, to increase output.

management, the annual net fixed carbon content of bamboo tree layer increased by 0.589 t/hm² compared with that of extensive management (quote reference). At the same time, soil carbon storage of moderately managed bamboo forest was 2.36 times and 1.86 times of intensive and extensive management, respectively. Therefore, moderate cutting, optimization of bamboo forest structure and management strategy have positive effects on increasing carbon sink of bamboo forest.

However, long-term intensive management, excessive bamboo harvesting, frequent use of chemical fertilizers, herbicides, etc., will lead to the increase of pure forest afforestation, the reduction of biodiversity and the reduction of self-fertilization ability of bamboo, and then lead to soil compaction, fertility decline, frequent diseases and pests. Therefore, scientific and moderate management of bamboo forest is advocated.

5 PROJECT IMPLEMENTATION STRATEGY AND ACTIVITIES

Carbon accounting and trading is one of the most important drivers in sustainable forest management in the context of global climate change resulting from the over-emission of CO₂. Hence, this Project will consider the potential of forest carbon accounting and marketing opportunities.

5.1 Implementation strategy

5.1.1 Enhancing Carbon Sequestration and Monitoring & Accounting

The Project will develop a model for proper monitoring and accounting of carbon uptakes and emissions for bamboo and Camellia plantations. Upon this the training plans on carbon monitoring and accounting will be developed and implemented by the technical workers and smallholders, and guide to measure and monitor carbon on the selected plots of bamboo and Camellia plantations with both improved management and management as usual in the county at the baseline year, mid-term, and final stages of project implementation. This will help to assess the public benefits of carbon sequestration through project implementation, the cost of the carbon sequestration per unit and the feasibility of carbon trading when that becomes possible again for the value chain crops in the project area. The model will be tested in a few counties such as Taojiang, Heshan and Yuanling which have sizeable areas under bamboo and Camellia plantations. The project experience will lead to the development of a model for carbon sequestration enhancement and proper monitoring and accounting at larger scale in the province or even the country, building technical capacity of government and private sector bamboo owners to estimate their carbon credit potential using advanced technologies. For example, the INBAR has developed a Mobile App that supports effective inventory of different types of bamboo species.

5.1.2 Carbon labelling

The "Carbon Label" is becoming a global product label and a "passport" for the import and export of goods in the long run. It is worth to explore the carbon labelling of processing value chain development in the Project including carbon footprint of major bamboo products and tea oil products of Camellia besides carbon sink from crop production.

The leading role in developing and testing the methodology on carbon footprint labelling of major bamboo products and tea oil products of Camellia would be initially with the Provincial Forestry Department, in collaboration with County Forestry Bureau, CDIC, and public or private enterprises. The piloting of carbon footprint labelling on selected bamboo product and tea oil product of Camellia will be conducted by the processing enterprises with interest in facilitating market and export of their products for innovation premium.

5.2 Major activities

The Project will take the following major activities:

- a) Develop & implement training plans on sustainable & climate smart management practices on plantations of the three value chain commodities, and on carbon monitoring and accounting.
- b) Implement well established sustainable & climate smart management practices which can help to enhance the productivity of all the three selected crops. Five technical models for growing these crops are planned in the selected counties including: (i) improved management of bamboo timber forest; (ii) improved management of bamboo shoot and timber dual-use forest; (iii) planting of Camellia oleifera; (iv) improved management of existing Camellia oleifera plantations; (v) cultivating of Chinese medicinal plants.
- c) Survey and monitor the management practices with five technical models in the project area and compare to the baseline in the region so as to measure the additionality of carbon under the Project implementation; and regularly monitor the field demonstrations for the proper management of the plantations and adaptive techniques to protect against droughts, soil conservation, etc.
- d) Test the model developed for carbon sequestration enhancement and proper monitoring and accounting in a few counties such as Taojiang, Heshan and Yuanling which have sizeable areas under bamboo and Camellia plantations.
- e) Develop the methodology on carbon footprint labelling of major bamboo products and tea oil products of Camellia; and test and pilot the carbon footprint labelling created for the selected bamboo product and tea oil product of Camellia.

- f) Network and collaborate with other carbon initiatives including national platforms likely to be established by NFGA, the KfW who is developing concepts to support close to nature forest management and also working on bamboo and camellia trees as well as carbon monitoring and trading in Hunan, and similar schemes, projects and TAG Dialogue and share lessons learned by the Project.

China

**Hunan Green Development Project
Project Design Report**

Annex: Annex 19 Key Project Stakeholders

Mission Dates: 21/10/2023-04/11/2023

Document Date: 29/02/2024

Project No. 2000003847

Report No. 6727-CN

Asia and the Pacific Division
Programme Management Department

Annex 19: Key project stakeholders

Key Project Stakeholders	Role & Responsibilities in Project
Provincial Forestry Department (PFD) in Hunan - Hosting the PPMO	Executing and Coordinating Agency. A Provincial Project Management Office (PPMO) will be set up in the PFD. Specifically, the Provincial Forestry Fund Station (PFFS) will undertake the day-to-day coordination and management of the project. The PPMO in the PFFS will be staffed adequately with the key functions necessary for the management of the project, including but not limited to an executive Project Director, a planning, M&E and Knowledge Management Officer, a staff as focal point for SECAP, Gender and Youth/ Social Inclusion, Finance Officer, Accountant, etc. The Department/Bureau of Finance (BOF) at Provincial/County level will be responsible for administering project resources, including the IFAD loan and counterpart funds.
County Forestry Bureau (CFB) (7) - Hosting the CPMO	Executing bodies. They will host the County Project Management Offices (CPMO), whose responsibilities include beneficiary targeting and implementation planning, overseeing business planning, coordinating with CDICs for value chain investment from either government or private sector at the farm level and coordinating with institutions responsible for social and environmental safeguards. In addition, the CPMOs will undertake project management tasks such as financial management, procurement, knowledge management and project monitoring and evaluation etc. CPMOs will be staffed adequately to perform the key functions for the management of the project, including but not limited to a Project Director, a planning and M&E and KM Officer, focal points for SECAP, gender and youth, a financial officer and accountant, etc. Specifically, county Women Federation (WF) will be assigned as a deputy director member of the CPMO to facilitate women's participation. Short-term technical assistance will also be procured through a consultant or service provider when required. Relevant technical bureaus in the counties will also be mobilized to support implementation of the related project activities.
Department/Bureau of Finance	The Department/Bureau of Finance (BOF) at Provincial/County level will be responsible for administering project resources, including the IFAD loan and counterpart funds at the responsive levels. DOF/BOF will maintain the Designated Account/project account, certify/process disbursements and endorse IFR. DOF/BOF will also supervise and support the project management offices in financial management of the project. DOF/BOF also has the duty to operationally supervise the project implementation as part of the government internal responsibility arrangement.
County Development Investment Company (CDIC)	Each county has identified a public sector agency which will receive the IFAD loan funds directly through the BOF and will work in partnership with the CFBs to coordinate their efforts in the production and processing of the selected value chain in each county. They will use the loan to support, through subsidies and equity investments, stakeholders ranging from smallholders, to cooperatives to SMEs (either private or State owned) both for the production and the processing side of the value chain. Under the guidance of CFB, CDIC investment will maximize engagement of and benefit to smallholders as the targeted beneficiaries of the project. They will also operate under strict socio-environmental safeguards. The CFB will develop very clear criteria for the participation of smallholders, women and youth in both the production and processing of the selected value chains. The CDICs will be expected to provide regular reports to the CFBs regarding the investments made as part of the

	<p>project and the extent to which these have contributed to the overall project objectives.</p>
Public or Private Enterprises	<p>Public or Private Enterprises will develop business plans to be reviewed by the CDIC for possible support. Investment criteria to be used by the CDIC will be guided by the Forest Bureau and in close coordination with related CDICs and the county governments. These criteria will include elements under the following broad categories: return, impact through inclusivity, climate action and innovation, and alignment with county safeguards. These criteria are detailed in the PDR under Component 2.</p>
Rural poor & Smallholders	<p>Former registered poor households under continued monitoring, and low-income households are the main target of the project. The project will improve their integration in value chains whether they cultivate land or not as detailed in the engagement pathways (Annex 16).</p> <p>Smallholder farmer households in China have very small holdings with 90% of smallholders farm on less than 1 ha of land. On average, agriculture land holding in the counties varies between 0.72 mu to 1.5 mu per person or an average of 0.93 per person or 2.47 mu per household. However, forest landholding in the counties varies between 0.73 mu to 14 mu per person or an average of approximately 5 mu per household. Table 2 below gives the land holding share of the main type of holdings in the project area. This shows that landholding by smallholders and those aggregated into cooperatives makes up 47% of the total holding and represent 72% of beneficiary households. Landholding held by private enterprise makes up 34% of the total holding and shall generate employment & waged work opportunity for 28% of beneficiary households. A majority of the direct beneficiaries of HGDP will be smallholders (72% of beneficiaries). There are three envisioned engagement pathways for project beneficiaries (see annex 16 for more details): 1. Smallholder engages with private sector (or state farm) directly or indirectly in self production; 2. Smallholder leases land to state or private enterprise farm and may also be contracted as labour and/or 3. Smallholders and poor rural households engage with private sector or state enterprise as wage earners only on productive land or in processing/marketing/logistics. Direct beneficiaries will also include those who benefit through increased sales. All will participate in the various training programmes for strengthening their technical skills and management capacity.</p>
Cooperatives	<p>The project will include cooperatives as a key institution for smallholder farmers and capitalize on their role as investor-owned enterprises or land-shareholding cooperatives which gives members an opportunity to earn wages, secure land rents or a share in the profits. The cooperative membership in the selected counties was reported at 55,885 households with an average membership of 23 households per cooperative. Only a small proportion of households (10%) reported being currently connected directly with enterprises. The type of beneficiaries and benefits are detailed in Annex 11.</p>
Women Federation	<p>Women's Federation (WF) is a grassroots agency dedicated to promoting women's rights and interests. The WF will support the</p>

	HGDP gender inclusion strategy by providing support to women in the agriculture sector and leverage complementary programmes.
Communist Youth League (CYL)/ Hunan Communist Youth League (GCYL)	Communist Youth League (CYL) and the Hunan Communist Youth League (GCYL) have strong grass roots links and can be of assistance in this regard for meaningful youth engagement and empowerment through the project