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## Republic of Indonesia

### Country strategic opportunities programme

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For: Review

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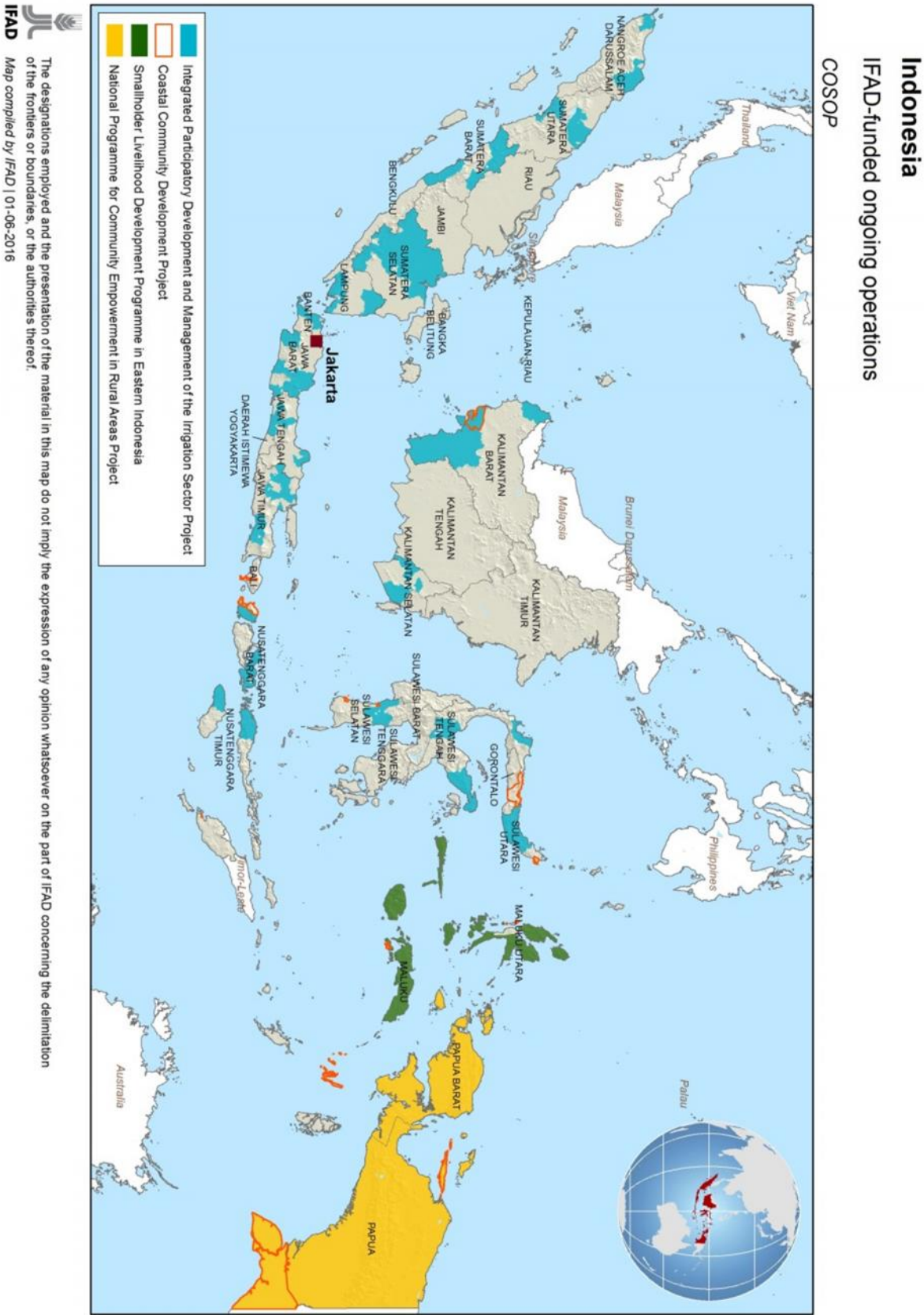
## Key files:

KF 1:	Rural poverty and agricultural/rural sector
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## Abbreviations and acronyms

ADB	Asian Development Bank
BAPPENAS	State Ministry of National Development Planning
BDS	business development services
CCDP	Coastal Community Development Project
COSOP	country strategic opportunities programme
CPE	country programme evaluation
CPMT	country programme management team
GEF	Global Environment Facility
GHG	greenhouse gas
ICO	IFAD Country Office
IDR	Indonesian Rupiah
IPDMIP	Integrated Participatory Development and Management of Irrigation Project
KM	knowledge management
M&E	monitoring and evaluation
OJK	Otoritas Jasa Keuangan (Indonesia Financial Services Authority)
PBAS	performance-based allocation system
PNPM	National Programme for Community Empowerment
READ	Rural Empowerment and Agricultural Development Programme in Central Sulawesi
READSI	Rural Empowerment and Agricultural Development Programme on Sulawesi Island
RPJMN	National Medium-Term Development Plan
SME	small and medium-sized enterprises
SMPEI	Sustainable Management of Peatland Ecosystems in Indonesia
SO	strategic objective
SOLID	Smallholder Livelihood Development Project
SSTC	South-South and triangular cooperation
UNFCCC	United Nations Framework Convention on Climate Change
YESS	Young Entrepreneurs Services

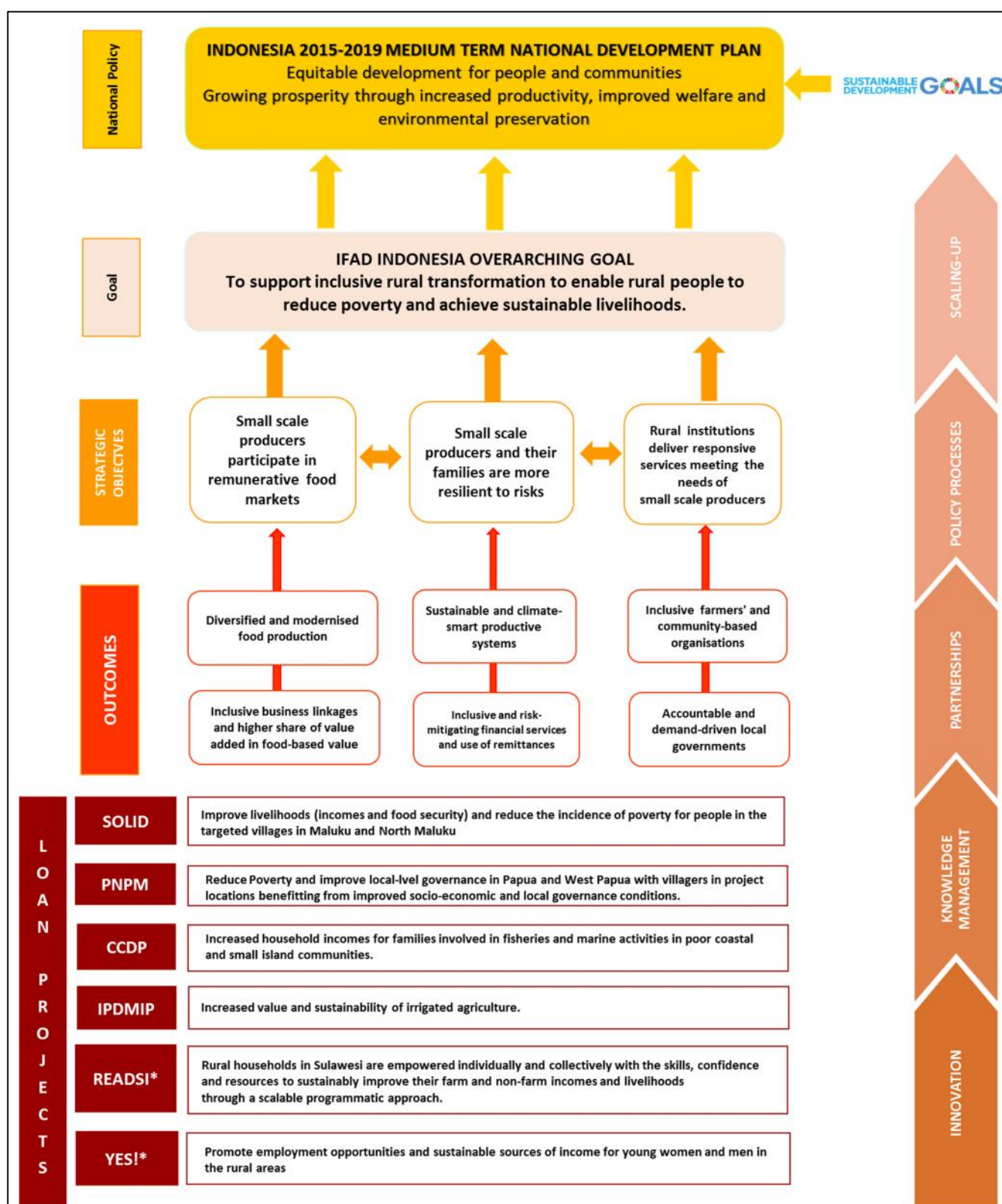
Map of IFAD-funded operations in the country



## Executive summary

1. Indonesia has evolved into a dynamic middle-income country. The country's 17,500 islands offer a diverse range of sociocultural, economic and natural resource settings with strong agricultural and marine potential. Indonesia is a leading producer in a number of commodities, including oil palm, cocoa, coffee and marine fisheries. The growing and changing nature of demand for food offers substantial opportunities to smallholder agricultural and marine producers.
2. While overall poverty rates have been reduced, they remain high in the rural areas particularly in eastern Indonesia. The current Government is committed to strengthening rural and agricultural development and recognizes the importance of ensuring equitable economic growth for all Indonesians. It has made food and nutritional security national priorities.
3. This results-based country strategic opportunities programme (COSOP) builds on lessons and results from previous country strategies and the 2013 country programme evaluation. It also takes into account the strategic reorientation of the portfolio undertaken by the Government of Indonesia to respond to the new expectations of development partners. IFAD has established itself as one of the leading partners in agricultural development with a comparative advantage in ensuring that smallholder producers and marginalized groups are more resilient, better integrated into supply chains, and have access to services, technologies and finance. IFAD's approach is to support the Government and other partners in piloting innovative approaches in agricultural and rural development that can be replicated and scaled up and inform national policy.
4. The overarching goal of this COSOP is to support inclusive rural transformation to enable rural people to reduce poverty and achieve sustainable livelihoods. IFAD will achieve this through the provision of financing and technical support to develop innovative models for replication and scaling up by the Government and other partners. IFAD will maintain its focus on the empowerment of marginalized groups including: (i) smallholder farmers (women and men); (ii) smallholder fisheries producers; (iii) women and woman-headed households; (iv) marginal communities and ethnic minorities in the selected geographic areas; and (v) youth.
5. Investments made by IFAD will contribute to three interlinked strategic objectives: (i) smallholder producers participate in remunerative agricultural markets; (ii) smallholder producers and their families are more resilient to risks; and (iii) rural institutions deliver services that respond to the needs of smallholder producers.
6. This strategy will initially cover the period 2016-2019, which corresponds with the National Medium-Term Development Plan. The Government has already requested IFAD's support in (i) scaling up the Rural Empowerment and Agricultural Development Programme in Central Sulawesi (READ); and (ii) strengthening opportunities for young entrepreneurs in rural areas. Loan investments will be accompanied by grants to strengthen the learning, scaling up and policy dialogue agenda.
7. The opening of the IFAD Country Office (ICO) in Indonesia will provide strategic opportunities to strengthen cooperation with the Government and other stakeholders; develop partnerships; engage in dialogue and policy platforms; and ensure continuous implementation support. The ICO will explore opportunities to enhance its financial and human resource base in order to further strengthen IFAD's support to the Government and the country programme and drive a monitoring and evaluation (M&E), knowledge management and innovation agenda. The overall goal will be to promote inclusive rural transformation in this ambitious middle-income country.

Figure 1. 2016-2019 country strategic opportunities programme



\* Investments to be designed under IFAD10.

# Republic of Indonesia

## Country strategic opportunities programme

### I. Country diagnosis

1. Indonesia is a fast-growing middle-income country with a population of 254 million. The archipelago consists of 17,500 islands inhabited by 300 ethnic groups speaking over 250 languages. The population is largely concentrated in western Indonesia and is increasingly urbanized. The urban population is growing by 2.7 per cent annually, and 53 per cent of Indonesians now live in cities.
2. Steady, but slowing, recent economic growth has contributed to significant poverty reduction, with the number of poor people decreasing from 24 per cent in 1999 to 11 per cent in 2014. Despite this good performance, almost a third of Indonesians live on less than US\$2 per day. These households are vulnerable to external shocks: an estimated 25 per cent of Indonesians have fallen below the poverty line at least once in the past three years. Poverty remains concentrated in rural areas with the rural poor accounting for 62.7 per cent of the population living below the poverty line. Pronounced regional disparities persist, with the highest poverty rates found in eastern Indonesia. However, the largest aggregate number of poor households are located in densely populated Java. Although improving, the Gender Inequality Index of 0.494 remains well above the 0.328 regional average.
3. The agricultural and marine sectors remain the main source of income for over one third of the population and for 59 per cent of the poor. Indonesia is a leading producer of oil palm, and a major global producer of rubber, copra, cocoa and coffee. Large plantations cultivate export crops on about 15 per cent of the total agriculture surface, but the majority of farmers (68 per cent) are smallholders operating on less than 1 hectare. Due to increasing fragmentation of land ownership, low productivity, volatile prices and higher agricultural wages, agriculture may no longer be attractive, particularly to young people: each year, 500,000 farmers' households leave the agricultural sector and the average age of an Indonesian farmer is now well above 50 years.

#### Challenges affecting poor rural families

4. Smallholder farmers lack access to quality inputs and services such as higher-yielding crop varieties, good quality fertilizers, financial services, extension, technologies and mechanization. Less than 50 per cent of the 7.2 million irrigated hectares are deemed functional. In the marine sector, limited access to and inadequate supply of inputs and technologies offer considerable scope for modernization.
5. While their access is improving, small producers still cannot fully benefit from markets due to lack of information, inability to meet market requirements, limited storage and cold-chain infrastructure, and lack of collective organization.
6. With 81,000 kilometres of coastline, Indonesia is vulnerable to rising sea levels and coastal erosion. Over the past 15 years, increasingly erratic weather patterns and extreme weather events have affected the country, causing the death of 181,500 people and damaging 3,050,000 hectares of rice fields. An estimated 15,400 natural disasters (for example floods, droughts and landslides) have hit the country. These events – such as the prolonged 2015-2016 El Niño drought – disrupt farming seasons, increase pests and diseases, and reduce crop yields. Without adequate climate change adaptation measures, rice production is predicted to fall by at least 20 per cent.

### Opportunities for broad-based rural growth

7. To meet domestic food demand, the productivity of Indonesian farmers will need to increase by more than 60 per cent within the next 15 years. As the rising urban middle class adopts a diversified diet, new market opportunities emerge for high-value crops and marine products. Diet transformation may also open the possibility of alternative sources of staples, building on local food resources (such as cassava or sweet potato).
8. New models of business partnerships are emerging, with domestic and global agribusiness increasingly interested in sourcing from smallholder producers. Successful IFAD investments demonstrate that empowered producers' organizations can play a key role in enabling smallholder producers to raise productivity, satisfy market requirements and earn premium prices.
9. Around 500,000 Indonesians are migrating every year; 6.5 million are currently officially working abroad. Net remittances to Indonesia (excluding internal flows) reached an estimated US\$8.3 billion in 2014. While the cost of remitting has been reduced, migrants and their families still have limited access to formal financial channels.

### A favourable national policy framework

10. The five-year National Medium-Term Development Plan (RPJMN) 2015-2019 sets ambitious economic growth and poverty reduction targets: annual GDP growth of 8 per cent, reduction of the poverty rate from 11 to 7-8 per cent, access to nutritious food for 100 per cent of the population and the development of rural and remote areas. Food sovereignty and the marine-based economy are among the four highest priorities, and a 4.5 per cent annual growth rate is targeted for the agricultural, fisheries and forestry sectors.
11. In line with the RPJMN, the overall objective of the 2015-2019 Strategic Plan of the Ministry of Agriculture is to achieve food sovereignty and enhance farmers' welfare. The plan further aims to achieve self-sufficiency in rice, maize and soybean, and to increase the production of other priority commodities (sugar cane, meat, onion and chilli). It will support smallholder farmers through extensive investment in infrastructure, extension and adaptation to environmental risks. In line with the 2013 Law on Farmers' Protection and Empowerment, increased farmers' welfare is to be achieved by improving farmers' access to land, finance and markets, protecting them against weather events and strengthening their organizations.
12. The 2015-2019 Strategic Plan of the Ministry of Maritime and Fisheries Affairs aims at optimizing the management of marine resources and improving the competitiveness and sustainability of fisheries and aquaculture-based businesses by empowering coastal communities, supporting climate change adaptation and disaster mitigation, expanding infrastructure and developing market linkages.
13. The recently created Ministry of Transmigration, Village and Disadvantaged Areas, is, among others, responsible for implementing the Village Law<sup>1</sup> and channelling of the resources in the village funds towards economic development at village level. It is expected that the total amount of the village funds will grow to US\$8.6 billion per annum.

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<sup>1</sup> The law guarantees that the central government allocates a specific amount of funds to Indonesia's 74,093 villages so that they can finance their own development based on their individual needs and priorities.



## Risks and risk management

14. In addition to risks related to changes in political leadership (in partner ministries), economic downturn, climate variability and extreme weather events, there are four main risks that could affect COSOP implementation:

Risk	Risk level	Mitigation strategy
Government institutions have insufficient capacities to implement project activities	Medium	IFAD investments will: <ul style="list-style-type: none"> <li>• Strengthen capacities through technical assistance, training, management tools</li> <li>• Diversify support service delivery, including through private sector</li> <li>• Introduce performance-based systems</li> </ul>
Weak project management capacities	Medium	IFAD investments will: <ul style="list-style-type: none"> <li>• Utilize performance-based management</li> <li>• Upgrade resources in the ICO for implementation support</li> </ul>
Remoteness of target areas	Medium	IFAD investments will: <ul style="list-style-type: none"> <li>• Strengthen local service provision models</li> <li>• utilize ICT</li> </ul>
Lack of capacities to mainstream successful business models into government and other stakeholders' systems	Medium	IFAD will: <ul style="list-style-type: none"> <li>• Develop scaling-up pathways for each investment</li> <li>• Strengthen knowledge management (KM), policy engagement and partnerships</li> </ul>

## II. Previous lessons and results

15. Indonesia has one of the largest IFAD portfolios in Asia and the Pacific. Since 1980, IFAD has financed 16 loan projects with a total value of US\$1,627 million (IFAD financing US\$510 million). The current ongoing programme includes four investment projects, totalling US\$941 million (IFAD financing of US\$356 million) and benefiting over 122 million people. Five country grants add value to the investment programme, complemented by eight regional grants benefiting Indonesia.
16. Country programme evaluation. The Independent Office of Evaluation of IFAD (IOE) undertook a country programme evaluation (CPE) for Indonesia covering the period from 2004 to 2012. The evaluation found that the stated objectives of the IFAD projects are generally aligned with government priorities, the needs of rural poor people and the IFAD country strategy and recommended that IFAD pursue five strategic thrusts: (i) make smallholder farmers the principal beneficiary; (ii) channel funding and technical support to core agriculture; (iii) build strategic partnerships on core agriculture; (iv) strengthen country programme management; (v) enhance the Government's role in the programme; and (vi) broaden the geographic focus.
17. Strategic change of IFAD country programme. Following the 2013 CPE, IFAD embarked on a significant reorientation of the country programme, concentrated on developing innovative approaches and assisting the Government in mainstreaming successful models into national programmes. Over the last three years, ongoing projects have been restructured to focus on productivity and market access; new models for partnering with private stakeholders have been built; strategic alliances have been forged with development partners; and new grants have been approved to provide access to international expertise and support knowledge-sharing and policy development. An IFAD Country Office has been opened in Jakarta.

18. Lessons learned and results. IFAD has accumulated considerable experience in Indonesia. Some of the more pertinent lessons are highlighted below (see the Agreement at Completion Point in appendix II):
- Empowering poor people through community groups is an effective means of facilitating tangible economic returns and increasing household income;
  - The private sector can strengthen access to inputs, technology, advisory services and markets, even in remote areas;
  - Partnering with the formal financial sector can ensure long-term, sustainable access to finance for IFAD's target group, as demonstrated by the Income-generating Project for Marginal Farmers and Landless – Phase III (P4K project);
  - NGOs and, increasingly, farmers' organizations can play a useful role in organizing smallholder producers (including women);
  - Spending on public goods in the agricultural sector has had a positive impact on agricultural growth in Indonesia and therefore investments in physical infrastructure are likely to continue generating high value added. Operation and maintenance arrangements for infrastructure schemes need to be better structured including through the introduction of innovative public-private sector models;
  - A comprehensive and transparent management information system is an effective tool to ensure project ownership by project staff and service providers and to support performance-based management;
  - Partnerships allow IFAD to leverage additional financial and human resources, making them central to IFAD's future role and engagement in Indonesia; and
  - Ensuring the active engagement of women through specific targeting and support measures has proved to be transformative and effective in delivering sustainable impact particularly in eastern Indonesia.

### III. Strategic objectives

IFAD's comparative advantage at the country level

19. IFAD's comparative advantage is its targeted approach to ensuring that smallholder producers and marginalized groups are more resilient, are better integrated into supply chains, and have access to services, technologies and finance. IFAD supports the Government and other partners in piloting innovative approaches in agricultural and rural development that can be replicated and scaled up and can inform policy.
20. IFAD's role in a middle-income country. Indonesia's expectations of its development partners have changed. As fiscal capacity to fund development initiatives increases, Indonesia has focused on partnering with fewer international institutions who can deliver the required support and services. For IFAD, being predominately a financing institution, this requires a sharper focus on policy and knowledge. It also entails developing innovative models and programmatic approaches that promote broad-based rural growth and improving the quality of public and private investments in rural areas. It means using IFAD's limited financial instruments – its loans and grants – differently. As an institution with limited financial and human resource capacity, IFAD must be catalytic in leveraging its resources by pursuing scaling-up and innovative partnerships more rigorously and by being a more engaged development partner.

### Strategic objectives

21. The overarching goal of this COSOP for 2016-2019<sup>2</sup> is to support inclusive rural transformation to enable rural people to reduce poverty and achieve sustainable livelihoods. IFAD will achieve this through the provision of financing and technical support to develop innovative models that can be replicated and scaled up by the Government and other partners. IFAD's strategic objectives are aligned with the RPJMN and the strategic plans of relevant ministries, IFAD's 2016-2025 Strategic Framework, the United Nations Sustainable Development Goals,<sup>3</sup> and the 2016-2020 United Nations Partnership for Development Framework (2016–2020) for Indonesia.<sup>4</sup>
22. Strategic objective 1: Smallholder producers participate in remunerative agricultural markets.<sup>5</sup> IFAD will support innovative business models with fair and remunerative arrangements to enable rural producers to capitalize on market opportunities. This will be achieved through two main outcomes:
  - (i) Diversified and modernized agricultural production systems. To achieve overall sector growth targets, production systems need to be intensified and modernized by integrating a substantial proportion of high-value crops. IFAD will promote rice where it has a comparative advantage but will also encourage the production of high-value crops and marine products that build on local potential and respond to identified market demand. Modernized support packages to raise productivity and competitiveness will be tailored to meet producers' needs and market requirements. This will be complemented by access to market information; quality inputs; sustainable market arrangements; innovative technologies; and improved productive infrastructure, including irrigation. IFAD will also ensure that the development of market-oriented production supports smallholder producers' right to land and natural resources, and their food and nutrition security; and
  - (ii) Inclusive business linkages and a higher share of value added in agricultural value chains. To facilitate access to markets, technology and advisory services, IFAD will link producers and their organizations more effectively with private and public actors along the value chains. IFAD will encourage innovative options for generating rural income and employment in agricultural value chains by supporting value addition through processing and by promoting off-farm supply of goods and services.
23. Strategic objective 2: Smallholder producers and their families are more resilient to risks. IFAD will promote innovative approaches for building resilience to enable rural producers to stabilize incomes and have the incentive to invest in higher productivity technologies. Two main outcomes are envisaged:
  - (i) Sustainable and climate-smart productive systems. Adaptation to environmental change and climate variability will be fostered through multiple-benefit approaches that build climate resilience and adaptive capacity while also increasing yields/catches. Enhanced biodiversity, lower greenhouse gas emissions and reduced vulnerability will be achieved using a landscape approach and the adoption of conservation agriculture and environment-friendly technologies along with resistant seed and crop varieties. Degraded land that has low biomass (such as peatland and deforested land) will be sustainably rehabilitated through soil and vegetation conservation and restoration. Community-based resource management will

<sup>2</sup> The current National Medium-Term Development Plan will expire in 2019. IFAD will undertake a review of its COSOP in 2019 and consider extension to ensure alignment with national priorities.

<sup>3</sup> SDGs 1, 2, 5, 8, 10, 12, 13, 14 and 15.

<sup>4</sup> Outcome 1 on poverty reduction, equitable sustainable development, livelihoods and decent work, and Outcome 2 on environmental sustainability and enhanced resilience to shocks.

<sup>5</sup> Agriculture is defined throughout this document as including the fisheries sector.

be promoted to prevent depletion and ensure the sustainable use of natural resources. This will be achieved through measures to ensure equitable access to land and natural resources for IFAD target groups and to secure their rights to those resources; and

- (ii) Inclusive, risk-mitigating financial services and use of remittances. IFAD will support smallholder producers in building productive assets and accessing improved technologies through increased access to financial services and capacity-building of financial institutions to deliver inclusive and affordable services. Innovative financing instruments (such as savings and loans products, warehouse receipt schemes) and risk management tools (such as guarantee schemes and index-based weather insurance) will be developed and replicated. This will also involve strengthening the sustainability of savings and credit groups and linking them to formal financial institutions. New investments will be used to strengthen value chains and support rural small and medium-sized enterprises (SMEs), with a view to developing market outlets and services for smallholders. Smallholders' access to inputs will be facilitated and transparent delivery systems (for example vouchers for fertilizers) will be created. Finally, IFAD will seek to maximize the impact of remittances from internal and international migration. This will involve supporting innovative and cost-effective remittance services to facilitate payments in rural areas, open migrants' access to a more diversified range of financial products and promote the productive rural investment of migrants' capital.
24. Strategic objective 3: Rural institutions deliver responsive services that meet the needs of smallholder producers. IFAD will strengthen the capacity of rural institutions to deliver inclusive and accountable services, enabling smallholder producers to raise their productive and marketing capacity. Two main outcomes are envisaged:
- (i) Inclusive producers' and community-based organizations. IFAD will support the creation business-oriented producers' organizations, or will build on existing organizations by expanding cost-effective services to members (such as collective marketing or certification), facilitating business agreements with buyers and service suppliers, increasing value added and protecting farmers' interests. Producers' organizations will be encouraged to progressively upgrade from informal, multipurpose self-help groups to business-oriented and legally registered farmer-owned ventures. Participatory, demand-driven approaches will support community empowerment to foster group motivation, transparent allocation and accountable use of project resources, and natural resource management. Community empowerment will also facilitate the inclusion of poor households and strengthen their rights to access land and natural resources; and
  - (ii) Accountable and demand-driven local governments. Building on experience, IFAD will strengthen local institutions' capacity to deliver responsive and accountable services, including through partnerships with the private sector. Social accountability mechanisms will ensure that services delivered are gender-sensitive and meet the expectations of poor people. Regular capacity assessments will ensure progress monitoring and adaptation of project support to actual performance and changing local dynamics.
- Investment and non-investment activities
25. IFAD must work differently to effectively support a middle-income country such as Indonesia. The Government increasingly values IFAD's non-lending activities, such as KM, partnerships and policy advice. To strengthen its contribution to rural transformation and scaling-up, IFAD will consolidate its operating model in Indonesia and continue to diversify its products, services and sources of financing.

IFAD's country presence will need to be strengthened in order to ensure delivery of more effective support and services and leverage partnerships to promote replication and scaling-up.

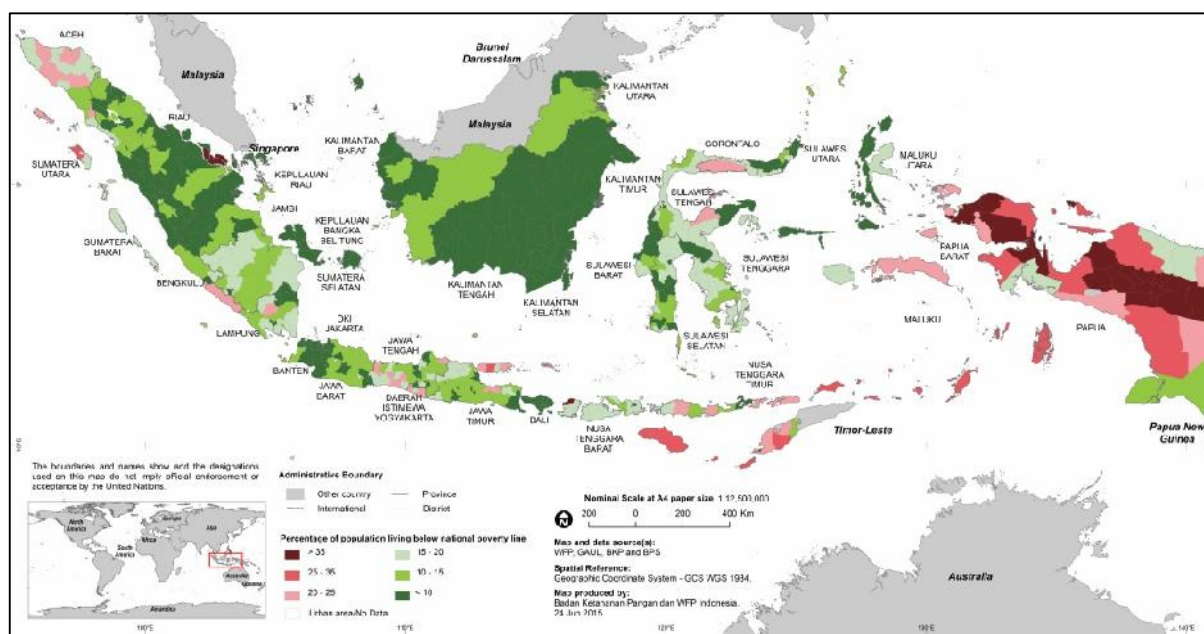
26. During the COSOP period, IFAD will pursue two new loan-financed investments: (i) rural empowerment and agricultural development on Sulawesi Island (READSI), to scale up a successful model for pro-poor value chain development; and (ii) a young entrepreneur services (YESS) programme, to support young people in rural areas in establishing farm and off-farm businesses.
27. Country and regional grants will: provide strategic support for South-South cooperation and scaling-up successful models developed with loan financing; foster closer linkages between implementation and policy; conduct research and analysis on priority policy areas; contribute evidence-based policy lessons; and facilitate partnerships to promote policy changes at the national and local level. Consultations are also ongoing with the Government to identify modalities whereby IFAD's technical expertise could be mobilized and financed using government resources through reimbursable technical assistance arrangements.
28. The reorganization and expansion of the IFAD Country Programme Management Team (CPMT) at both headquarters and country level and the opening of the ICO in Indonesia are enabling more comprehensive engagement to inform policy in support of inclusive rural transformation. The ICO will enable IFAD to enhance engagement with the Government and other stakeholders, develop partnerships, engage in dialogue and policy platforms, and provide continuous implementation support. A key area will be resource mobilization. IFAD plans to increase in-country human resources through structured secondment and internship programmes.

#### IV. Sustainable results

##### A. Targeting and gender

29. Geographical targeting. In line with the Government's request, the CPE recommendations and the scaling-up agenda, IFAD will broaden its geographical focus to pilot innovative development models in wider socioeconomic, cultural and environmental contexts, which will then be scaled up nationally through government programmes. While IFAD will be open to interventions in disadvantaged areas nationally, it will maintain its focus on eastern Indonesia where poverty incidence is highest.
30. Target groups. The target groups for IFAD investments are (i) smallholder farmers (women and men); (ii) smallholder fisheries producers; (iii) women and woman-headed households; (iv) marginal communities and ethnic minorities in the selected geographic areas; and (v) youth. IFAD will continue with its gender-equitable, inclusive approach to enable women and various socioeconomic groups, including poorer households, to take advantage of project investments to improve their livelihoods.

**Figure 2: Population below the national poverty line**  
(World Food Programme Food Security and Vulnerability Atlas 2015)



## B. Scaling-up

31. The scaling-up of pilot innovations is integral to IFAD's new strategic partnership approach in Indonesia. IFAD will build on recent successful replication and scaling-up experiences, such as under the Rural Empowerment and Agricultural Development (READ) Programme, the Coastal Community Development Project (CCDP) and the National Programme for Community Empowerment in Rural Areas (PNPM Agriculture). Areas of focus will include public-private-producer partnerships to provide support services and market access, technical support packages for increased productivity (including in the irrigation sector) and inclusive implementation modalities for the Village Fund. IFAD grants will complement these efforts by ensuring that the results achieved by IFAD's investments generate knowledge and inform policy.
32. IFAD will be developing capacity for advocacy on smallholder-related policies by collaborating with national indigenous peoples' and farmers' organizations and building on IFAD-financed regional grants (e.g. to the Medium-Term Cooperation Programme with Farmers Organizations in Asia and the Pacific Region and the Indigenous Peoples Assistance Facility). Participation in public-private dialogue platforms and the promotion of innovative instruments through the financial sector and new agribusiness partnerships should contribute to scaling-up in the agribusiness sector. At the local level, empowered community-based organizations and young farmers will become important drivers of change. Leveraging migrants' remittances will also have a key role.

## C. Policy engagement

33. The policy dialogue agenda will be linked to the strategic objectives and cover: (i) strengthening and empowering smallholder organizations; (ii) supporting rural transformation, and securing tenure and access to land; (iii) promoting sustainable use and management of natural resources; (iv) enhancing smallholders' access to improved agricultural inputs, technologies and services (including financial services); and (v) facilitating public-private-producer partnerships.
34. IFAD will pursue a multi-pronged approach to policy development at the country level, driven by investment projects and complemented by grant funding, including: (i) strengthening government capacity for a supportive, pro-poor regulatory and policy environment; (ii) identifying specific policy issues and

providing financing to support these within the context of its projects; (iii) in partnership with the Government and the private sector, creating a pool of resources to provide country-level support to knowledge-building and policy dialogue as currently practised under the Integrated Participatory Development and Management of Irrigation Project (IPDMIP), READ and CCDP; (iv) partnering with representative institutions of smallholder farmers, fishers and indigenous peoples to identify relevant policy issues and assist them in developing an effective policy advocacy strategy; and (v) strengthening the Government's M&E systems for evidence-based policymaking.

#### D. Natural resources and climate change

35. Smallholder producers' adaptation to environmental change and climate variability is a major condition for increasing their productivity and reducing their vulnerability. Water scarcity is already an issue and rain patterns are expected to change further. The building of producers' resilience to environmental risks under strategic objective 2 constitutes one of the main expected outcomes. The piloting of climate risk-oriented approaches such as index insurance schemes will also be considered. The introduction of new approaches will rest on community-based resource management and on building the capacities of smallholder producers and local institutions. IFAD will further continue to expand its partnership with the Ministry of Environment and Forests through the haze prevention and sustainable peatland management initiative supported by the Global Environment Facility (GEF)(see appendix IV).

#### E. Nutrition-sensitive agriculture and rural development

36. Although food security has improved in Indonesia, malnutrition remains significant: 37 per cent of children under five are stunted. The deterioration of nutritional status is more severe in rural areas, where access to social and economic infrastructure is lower. Nutrition goals are set forth in the RPJMN, including the reduction of stunting among children under five to 28 per cent by 2019.
37. Building on tools currently being developed through a country grant on nutrition-sensitive value chains,<sup>6</sup> IFAD will ensure that activities aimed at supporting smallholders' inclusion in value chains can be leveraged to accommodate food security and nutrition objectives. Such activities will include awareness-raising on good nutrition practices, community empowerment to make behavioural changes, crop diversification to support balanced food consumption, and improved storage and processing. Collaboration with the World Food Programme to leverage their work on vulnerability mapping and nutrition education will be pursued.

### V. Successful delivery

#### A. Financing framework

38. This COSOP covers the performance-based allocation system (PBAS) cycle for 2016-2018 (the period of the Tenth Replenishment of IFAD's Resources [IFAD10]) and the first year of the 2019-2021 PBAS cycle (IFAD11). Due to improved programme performance in recent years, Indonesia's PBAS allocation for IFAD10 rose to US\$110 million. Similar financing levels are expected for IFAD11. KM and policy dialogue activities will continue to be supported through country grants (US\$1 million under IFAD10), the country programme will also benefit from regional grants.
39. Cofinancing/resource mobilization. In recent years, IFAD has been successful in mobilizing cofinancing for its investments; on average, IFAD has mobilized US\$2.6 for each US\$1 of IFAD loan (and grant) financing in the ongoing and forthcoming investments (table 1). To reflect the shift to a more programmatic

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<sup>6</sup> A Canadian-financed pilot initiative implemented by SNV in Maluku and Maluku Utara.

approach, the ICO will develop a structured resource mobilization strategy for the country programme. Cofinancing and trust funds constitute a major opportunity, building on the solid partnership established with the Asian Development Bank, GEF and other partners such as the Asian Infrastructure Investment Bank and Islamic Development Bank, and various bilateral partners such as Australia, Germany, Japan, Netherlands and New Zealand. Additional resources will be mobilized in consultation with the Government, particularly through scaling up IFAD-supported projects and linking them to national programmes.

**Table 1: IFAD Cofinancing of ongoing and IFAD10 planned projects**

(Millions of United States dollars)

<i>Project</i>	<i>IFAD financing</i>	<i>Cofinancing</i>
READSI	31	6
YESS	80	20
SMPEI <sup>a</sup>	0.5	49
IPDMIP	100	753
CCDP	26.2	17
SOLID <sup>b</sup>	50.2	14.8
PNPM Agriculture	68.5	81.5
<b>Total</b>	<b>356.4</b>	<b>941.3</b>

<sup>a</sup> Sustainable Management of Peatland Ecosystems in Indonesia.

<sup>b</sup> Smallholder Livelihood Development Project.

## B. Monitoring and evaluation

40. Progress towards the development goal and objectives will be measured based on the COSOP results measurement framework and linked to the RPJMN indicators. All projects will report on the results framework indicators. The ICO will collect data and present them in a country portfolio results dashboard, which will provide a snapshot of results and allow for continued performance monitoring, dialogue and performance-based allocation of resources.
41. Annual COSOP results reviews and the regular in-country processes of the in-country CPMT will assess progress, identify lessons and make recommendations to improve performance based on the dashboard, supervision reports, self-assessment activities and KM activities, covering both investment projects and non-lending activities. Reviews will be led by the ICO but prepared with and approved by the in-country CPMT. Conclusions and recommendations made as part of this process will also be used to inform and guide the preparation of learning plans. A COSOP midterm review to confirm continued relevance and validity of strategic objectives will be undertaken towards the end of 2017. A review will be undertaken at the end of the COSOP period in 2019 with a view to extend the COSOP and ensure continued alignment with the new RPJMN.

## C. Knowledge management

42. KM constitutes the pivotal link between investments on the ground and scaling up. KM will be a major driver of IFAD's new operating model in Indonesia and of IFAD's role as a source of expertise for promoting inclusive rural transformation. To support KM, IFAD-financed investment projects will be backed up with grant financing, enabling IFAD to support analytical work to inform policies and public expenditure. Further institutionalization and funding from the Government and other development partners towards KM and policy dialogue platforms will be pursued.
43. Building on lessons learned from the current KM strategy, IFAD will aim at supporting systematic documentation and sharing of knowledge. The KM activities will be implemented through annual learning plans, which will be developed and approved by the in-country CPMT. As IFAD continues to adapt its country



programme management approach to a changing middle-income country context, communication, partnership and branding are becoming ever more important and will complement the KM approach.

#### D. Partnerships

44. IFAD will promote programmatic and project-specific partnerships to strengthen performance, access expertise and services, and pave the way for scaling up. With the Government, established partnerships with BAPPENAS, Ministry of Agriculture, Ministry of Marine Affairs and Fisheries, Ministry of Home Affairs and Ministry of Finance offer a sound basis for promoting scaling up, as does the new partnership established with the Ministry of Environment and Forestry via the GEF-financed sustainable peatland management and haze prevention initiative. A new partnership is evolving with the Ministry of Transmigration, Village and Disadvantaged Areas, offering opportunities to scale up economic livelihood development initiatives by leveraging the Village Law funding.
45. IFAD will continue to develop selective partnerships with the private sector at the local and national level. Collaborating with the financial sector will give the opportunity to expand the access of rural communities to new, adapted financial products. IFAD will continue to build its collaboration with the recently established Indonesia Financial Services Authority.
46. Partnerships with social organizations – in particular those representing farmers' and indigenous peoples' interests – will be strengthened to support policy dialogue and scaling up. NGOs working with rural poor communities will continue to participate in project activities as this has been recognized as an effective way to support project implementation.
47. Finally, IFAD will promote alliances with selected development partners to support coordination and synergies between projects in similar areas of activities, mobilize resources and develop cofinancing arrangements, including with other international financial institutions, United Nations agencies and bilateral partners and academia. Collaboration with the other Rome-based agencies will be a priority.

#### E. Innovations

48. Innovation and scaling up will be promoted through ongoing and new investments, supported with grant resources in collaboration with the Government and other partners, and thematically linked to the three strategic objectives (SO), as follows:
  - SO1: The Government is supportive of engaging with the private sector to promote smallholders' access to markets. IFAD investments will experiment with these models and assist the Government in scaling up and exploring opportunities to develop and deliver modernized technical support packages for increased productivity and food diversification.
  - SO2: IFAD will explore innovations in sustainable and climate-smart productive systems; inclusive, risk-mitigating financial services; and the use of remittances. Examples include piloting inclusive integrated landscape approaches for addressing natural resource degradation issues (particular forests and peatlands); and pursuing rural finance arrangements with the banking sector (including mobile technologies, insurance and transfer payment services).
  - SO3: IFAD will continue working on innovations to strengthen smallholder organizations, such as a service delivery module and ways of ensuring inclusiveness for productive poor groups, women and ethnic minorities. IFAD will continue to promote learning on how the Government – at all levels – can deliver more effective public services to the rural population.

## F. South-South and triangular cooperation

49. The Government of Indonesia has been at the forefront of South-South and triangular cooperation (SSTC) as co-chair of the G20 Task Team on South-South Cooperation. It has established an SSTC National Coordination Team and is working on a strategic framework including standard operating procedures for SSTC.
50. At the request of the Government, IFAD has been financing a pilot country grant to support SSTC by building a KM system within BAPPENAS related to innovations piloted in IFAD investments. IFAD will develop a strategic, practical programmatic approach to SSTC in the country. The ICO will facilitate Indonesia's engagement in SSTC with the Pacific Islands, Papua New Guinea and Timor-Leste, as well as more generally within the region and globally. Further potential entry points are the GEF-supported initiative on haze prevention within the Association of Southeast Asian Nations (ASEAN) and the scaling-up of mobile technologies.

## COSOP results management framework

Country Strategy Alignment	Key Results for RB-COSOP			
Medium-Term National Development Plan (2015-2019) <sup>7</sup>	Strategic Objectives	Outcome Indicators <sup>8</sup>	Milestone Indicators <sup>1</sup>	Means of Verification
<p>The Medium-Term National Development Plan targets four priority areas: food sovereignty, energy sovereignty, marine and maritime development and improved livelihoods for the poor through better access to basic services and to the productive economy.</p> <p><u>Objectives related to food sovereignty</u></p> <ul style="list-style-type: none"> <li>average annual growth rate of 4.5% of agriculture sector</li> <li>increase food availability</li> <li>support food diversification and improve nutrition</li> <li>improving food accessibility by promoting agriculture processing, linkages between farmers' groups and agri-business, and food distribution</li> <li>improving farmers' resilience by developing agriculture insurance and promoting</li> </ul>	<p>COSOP Goal : To support inclusive rural transformation to enable rural people to reduce poverty and achieve sustainable livelihoods</p> <p>Indicator and targets:</p> <ol style="list-style-type: none"> <li>60% of project households with improved asset ownership (baseline: 0)</li> <li>10% reduction in the prevalence of chronic child malnutrition in project households (baseline: 40%)</li> <li>70% of project households with improved food security (baseline: 0)</li> </ol>			<ul style="list-style-type: none"> <li>National data and statistics</li> <li>RIMS</li> <li>Impact studies</li> </ul>
	<p><u>Strategic Objective 1</u></p> <p>Small-scale producers participate in remunerative agricultural markets</p> <p>Supporting projects: CCDP, PNPM, SOLID, IPDMIP, READSI, YESS</p>	<ol style="list-style-type: none"> <li>30% yield increase for selected crops</li> <li>30% increase in marketed volume and value of sales of agricultural/marine products</li> <li>60% of small producers/enterprises reporting access to adequate BDS/financial services</li> <li>30% increased marketed volume and value of sales of agricultural/ marine products</li> </ol>	<ol style="list-style-type: none"> <li>Producers' organizations extending effective services to members, number of members</li> <li>Marketing groups formed, number of members</li> <li>Number of people trained in business and entrepreneurship</li> <li>Number of farmers participating in Farmers' Field Schools/Climate Field Schools/demonstrations on farmers' land</li> <li>Number of public-private-producer partnerships forged for improved access to inputs and services</li> <li># Policy studies undertaken and results disseminated.</li> </ol>	<ul style="list-style-type: none"> <li>RIMS</li> <li>Impact studies</li> <li>Supervision Reports</li> </ul>

<sup>7</sup> Strategic plan of Ministry of Agriculture, Strategic plan of Ministry of Marine Affairs and Fisheries, Strategic plan of Ministry of Village.

<sup>8</sup> Where relevant, indicators will be disaggregated by gender, age group and value chain.

Country Strategy Alignment	Key Results for RB-COSOP			
Medium-Term National Development Plan (2015-2019) <sup>7</sup>	Strategic Objectives	Outcome Indicators <sup>8</sup>	Milestone Indicators <sup>1</sup>	Means of Verification
<p>environmental-friendly techniques</p> <p><u>Objectives related to marine and maritime development</u></p> <ul style="list-style-type: none"> <li>development of maritime infrastructure</li> <li>doubling of fisheries production in five years</li> <li>conservation of marine ecosystems</li> </ul> <p><u>Objectives related to poverty reduction</u></p> <ul style="list-style-type: none"> <li>reduction of the poverty rate from 11% to 7-8%</li> <li>improve basic services for the poor and marginalized segments of society</li> <li>improve their access to the productive economy</li> <li>develop sustainable livelihoods for the poor through the distribution of labour and entrepreneurship development</li> </ul>	<p><u>Strategic objective 2</u></p> <p>Small-scale producers and their families are more resilient to risks.</p> <p>Supporting projects: CCDP, PNPM, SOLID, IPDMIP, READSI, YESS, SMPEI</p>	<p>8. 60% land from IFAD-supported farmers under improved management practices</p> <p>9. 70% of participating households have affordable access to and use of sufficient seasonal &amp; investment finance – whether from CBFOs, FSP loans or own savings.</p> <p>10. 30% increase in project beneficiaries with secure land tenure.</p> <p>11. 75% of participating farmers/fishermen adopt introduced technologies for climate change adaptation and productivity increase</p>	<p>(i) Number of natural/coastal resource management plans developed</p> <p>(ii) Number of farmers using climate and pest resilient seeds introduced by IFAD projects</p> <p>(iii) Number of savings and credit groups linked to licensed financial institution</p> <p>(iv) Number of households benefiting from financial education</p> <p>(v) Model for the optimization of migration remittances for productive investment tested, documented and disseminated</p> <p>(vi) Number of households received nutrition education</p> <p>(vii) 5 new technologies and approaches developed and tested for mainstreaming to enhance climate change resilience</p>	<ul style="list-style-type: none"> <li>RIMS</li> <li>Impact studies</li> <li>Supervision Reports</li> </ul>
	<p><u>Strategic objective 3</u></p> <p>Rural institutions deliver responsive services meeting the needs of small producers</p> <p>Main supporting projects: CCDP, PNPM, SOLID, IPDMIP, READSI, YESS</p>	<p>12. 80% of households are satisfied with the: a) relevance, b) quality, and c) accessibility of agricultural extension and advisory services provided by the public and private sector.</p> <p>13. Commodity and livelihood groups are active and functioning effectively in 90% project villages.</p> <p>14. SSTC exchanges organized and leading to scaling up of successful development approaches.</p> <p>15. 100% performance-based management approach in IFAD-supported projects.</p>	<p>(i) Number of village/district administrations receiving capacity-building</p> <p>(ii) Number of village-level institutions established and supported through IFAD programmes</p> <p>(iii) Number of community development plans developed</p> <p>(iv) 30% of decision-making positions in farmers' groups occupied by women/disadvantaged groups</p> <p>(v) Capacity-building packages developed, tested and documented</p> <p>(vi) Social accountability mechanisms established in all IFAD-supported projects.</p> <p>(vii) M&amp;E systems in all projects established and well-functioning.</p>	<ul style="list-style-type: none"> <li>RIMS</li> <li>Impact studies</li> <li>Supervision Reports</li> <li>Independent Client Satisfaction Survey</li> </ul>

## Agreement at completion point of last country programme evaluation

### Introduction

This is the second Country Programme Evaluation (CPE) undertaken by the IFAD Independent Office of Evaluation (IOE) for Indonesia. The CPE covers nine years, of which five years (2004 to 2008) are prior to the Country Strategic Opportunities Programme (COSOP) approved in 2008, and four years (2009 to 2012) are part of the COSOP (which covers 2009-2013). The main CPE mission was undertaken in April/May, 2012. A CPE National Roundtable Learning Workshop was held in Indonesia on March 21, 2013 to discuss the findings and recommendations of the evaluation.

The main objectives of the CPE were to: (i) assess the performance and impact of IFAD-funded operations in Indonesia; and (ii) generate a series of findings and recommendations to serve as building blocks for the formulation of the forthcoming results-based COSOP to be prepared by IFAD and the Government of Indonesia.

The Agreement at Completion Point (ACP), reflects the understanding between the Government of Indonesia (represented by the Ministry of Finance) and IFAD Management (represented by the Programme Management Department). It comprises the summary of the main evaluation findings (Section B below), as well as the commitment by IFAD and the Government to adopt and implement the CPE recommendations within specific timeframes (Section C below). It is noted that IOE does not sign the ACP, although it facilitated the process leading up to its conclusion. The implementation of the recommendations agreed upon will be tracked through the President's Report on the Implementation Status of Evaluation Recommendations and Management Actions, which is presented to the IFAD Executive Board on an annual basis by the Fund's Management. In addition, this ACP will be submitted to the Executive Board of IFAD as an annex of the new COSOP for Indonesia.

### Main evaluation findings

The partnership between IFAD and the Government of Indonesia is highly valued by both sides, reflecting mutual trust and cordial relations. IFAD's commitment to poverty reduction among the rural poor in Indonesia has been appreciated. The Government has reiterated its commitment to IFAD by doubling its replenishment contribution in the IFAD's 9th replenishment (2011), as compared to the IFAD's 8th replenishment (2008).

The importance of agriculture. Agriculture is and will continue to remain a very important sector in the Indonesian economy and for the Indonesian people, even after the country has transitioned into a middle-income country, with important contributions from the mining, manufacturing, and service sectors.

IFAD performance has been mixed. IFAD in Indonesia has earned a reputation for being a small, friendly, non-intrusive, flexible UN agency with a genuine interest in reducing rural poverty. IFAD's commitment to poverty reduction among the rural poor in Indonesia has been appreciated but IFAD is not widely known.

Overall the portfolio has made encouraging achievements in social mobilization and gender with self-help groups and building institutions a key feature of all the seven IFAD-supported projects. Marked progress has also been made in terms of investments for the enhancement of social infrastructure. However, results related to on-farm and off-farm development and agriculture productivity enhancement are more limited. Although productivity enhancement and value addition were included in project design, they did not get adequate attention during implementation.

Project designs were often complex with diffused focus, and covering large geographical areas straining limited sub-national capacities. Limited achievements have been made in piloting and scaling-up innovations with insufficient attention to learning and knowledge

management. The shift to direct supervision and implementation support by IFAD is making a positive impact. Rapid improvements have been made in the past two years, and has the potential of being even more effective, with the required adjustments. Results related to non-lending activities (policy dialogue, knowledge management and partnership building) were limited, even though these are increasingly important given Indonesia's MIC status.

The COSOP process did not provide an adequate foundation for the country programme. The IFAD country programme was not driven by a COSOP during 2004-08 and when a COSOP framework was eventually established in 2008 for the country programme, the COSOP was strong on goals and expectations but deficient on implementation design and mitigation of programme and internal IFAD risks. COSOP management was weak. IFAD appears not to have devoted the required management attention to its cooperation in Indonesia since around 2004-2005 until more recently when a new CPM was assigned in 2011 and has been making good start to remedying the situation. The IFAD-Government cooperation has been adversely affected by lack of a country presence, with a Rome-based CPM, though there are firm plans to outpost the CPM to Jakarta in the near future.

Government role could have been more effective. The Government could have been more directional in requesting IFAD to limit its activities to small farmers and their groups and the improvements to their agricultural productivity through technology and value chain development and through empowerment of these groups.

IFAD could play a leading role in promoting productive, competitive and high value smallholder agriculture. This can be done by identifying, promoting, validating and scaling-up viable agriculture innovations that are appropriate for smallholder agriculture but in active partnership with the Government, other strategic partners and stakeholders, including public-private partnerships. Promoting efficient and productive smallholder agriculture will not only increase agricultural growth but will also reduce poverty, improve food security and empower women. Given rapid urbanization, a declining share of the farming population has to meet the rising demand for food, feed and agricultural raw materials over time. There is thus a great opportunity and a challenge for IFAD to develop a brand name as a key supporter of productive, competitive and high value smallholder agriculture in Indonesia through the instrument of a national programme for small farmers.

#### Agreement at completion point

The CPE makes five key recommendations:

##### Recommendation 1:

- Make small farmers the principal beneficiary of the IFAD programme. IFAD should place small farmers, their food and high value crops at the centre of its efforts. The focus on rice should not result in neglecting the needs of high value export crops such as coffee, cocoa, rubber, etc. Given relatively scarce resources, IFAD should limit its role to high value crops grown by smallholders with an appropriate and increasing role of value chains. To support these goals, IFAD should design and implement a new comprehensive national strategic programme for small farmer agricultural development, with four key objectives: (i) address national level issues that impact on the lending portfolio and supervision activities at the project level and coordinate the non-lending activities (policy dialogue, knowledge management, and partnership building) for all projects in the programme; (ii) monitor innovations in IFAD-financed projects and support scaling-up involving other partners' projects and government national programmes; (iii) help IFAD to serve as the voice for small farmers in policy and knowledge exchange forums and establish a brand name for IFAD in this role; and (iv) support the Government's South-South initiatives relating to agriculture. This programme would be financed jointly by IFAD grant funds and grants from bilateral donors active in agriculture in Indonesia. IFAD should develop its lending

portfolio and non-lending activities with the above objectives in mind, and align investment, technical assistance, policy dialogue, knowledge and analytical work to make a real impact on the lives of small farmers.

- **Proposed follow-up:** At the request of the Government of Indonesia, IFAD has developed an Interim Country Strategy for Indonesia for the period 2014-2015 which responds to this recommendation. The interim strategy outlines some of the key elements of the country strategy such as strategic objectives, targeting approach, geographic focus, identification of potential investment opportunities for the next two years, partnership potential with funding agencies and the private sector. The strategy also focuses on IFAD's non-lending activities such as enhancing the performance of its ongoing portfolio, knowledge management and policy advocacy. A new five year Results Based Country Strategic Opportunities Programme (RB-COSOP) will be developed to cover the period from 2015 to 2019. The introduction of an interim country strategy for the next one and half to two years enables IFAD to respond to the conclusions and recommendation of the CPE, and importantly, enables IFAD to fully align its next RB-COSOP with the Government of Indonesia's (GOI) new five year planning cycle expected to be initiated from 2015 onwards. The RB-COSOP 2015-2019 will also be informed by this ACP.
- **Deadline date for implementation:** The Interim IFAD Country Strategy 2014-2015 will be finalized by 31st December 2013. A new five year Results Based Country Strategic Opportunities Programme (RB-COSOP) will be developed to cover the period from 2015 to 2019.
- **Entities responsible for implementation:** Government of Indonesia including Bappenas, Ministry of Finance and respective line agencies; and IFAD.

#### Recommendation 2:

- **Channel funding and technical support on core agriculture.** Core agriculture consists primarily of food and high value cash crops. IFAD, through its next COSOP, should draw the boundaries of its Indonesia programme around core agriculture activities. The strategic objectives and target groups should be in alignment with these boundaries. Core agriculture activities should be targeted on empowering small farmers and their groups, in geographical areas where there are a large number of small farmers and the preconditions for a successful donor intervention exist. IFAD operations should focus on improving the access of small farmers to agricultural technology and services, and help them to develop value chain links to input and output markets. This will help small farmers raise productivity and adapt to climate change.
- **Proposed follow-up:** This recommendation will be addressed in the Interim IFAD Country Strategy 2013-2015 and a new five year Results Based Country Strategic Opportunities Programme (RB-COSOP) covering the period from 2015 to 2019.
- **Deadline date for implementation:** From 31st December 2013.
- **Entities responsible for implementation:** Government of Indonesia including Bappenas, Ministry of Finance and respective line agencies; and IFAD.

#### Recommendation 3:

- **Build strategic partnerships on core agriculture.** IFAD should evaluate the strengths and weaknesses of potential partnerships in the core agriculture areas of IFAD's focus. Given the high transaction costs involved in building partnerships, selectivity is key. Partnerships with donors, civil society and the private sector should focus on activities relating to core agriculture and small farmers.
- **Proposed follow-up:** This recommendation will be addressed in the Interim IFAD Country Strategy 2013-2015 and a new five year Results Based Country Strategic Opportunities Programme (RB-COSOP) covering the period from 2015 to 2019.

- Deadline date for implementation: From 31st December 2013.
- Entities responsible for implementation: Government of Indonesia including Bappenas, Ministry of Finance and respective line agencies; and IFAD

Recommendation 4:

- Strengthen IFAD country programme management. IFAD should specify with greater clarity country programme management responsibilities and mechanisms within the context of decentralization to install the necessary capacity within IFAD to manage COSOP in Indonesia. Accountability for performance should be more sharply defined and necessary incentives should be put in place. COSOP should also make specific recommendations on how to establish within IFAD, core competencies to deliver results in the decentralized context of country engagement, balancing access to global expertise with tapping high quality local resources.
- Proposed follow-up: This recommendation will be addressed in the Interim IFAD Country Strategy 2013-2015 and a new five year Results Based Country Strategic Opportunities Programme (RB-COSOP) covering the period from 2015 to 2019.
- Deadline date for implementation: From 31st December 2013.
- Entities responsible for implementation: IFAD, together with Government of Indonesia including Bappenas, Ministry of Finance and respective line agencies

Recommendation 5:

- Enhance the Government's role in IFAD-supported activities. Shifting the focus to core agriculture will assist IFAD in developing focused strategic relationships with the main technical counterparts of the Government. The success of IFAD in alleviating poor small farmer problems depends on its ability to build capacity at the village level so that small farmers interact with key players from government departments, private sector entities, and civil society. The establishment of capacity at the district level and its effectiveness at the village level will have to be the centrepiece of all sub-national IFAD projects. The next COSOP should come up with a more practical way of using outside capacity for M&E initially, and then gradually building up capacity within the projects.
- Proposed follow-up: This recommendation will be addressed in the Interim IFAD Country Strategy 2013-2015 and a new five year Results Based Country Strategic Opportunities Programme (RB-COSOP) covering the period from 2015 to 2019.
- Deadline date for implementation: From 31st December 2013.
- Entities responsible for implementation: IFAD, together with Government of Indonesia including Bappenas, Ministry of Finance and respective line agencies

Signed by:

Andin Hadiyanto, Chairman of Fiscal Policy Agency, Ministry of Finance, Government of Indonesia

and

Kevin Cleaver, Associate Vice President, Operations, Programme Management Department, IFAD

Date: 20 February 2014



## COSOP preparation process including preparatory studies, stakeholder consultation and events

**Preparatory work.** A COSOP results review was conducted to identify lessons from the previous COSOP period.

Studies on Trends and Challenges in the Agriculture Sector, Rural Poverty Analysis, Migration and Remittances, a Social, Environmental and Climate Assessment Procedures Assessment (SECAP) and Scaling-up were prepared between July 2015 and March 2016. These studies are attached to the COSOP document.

The COSOP drew further on the analytical work conducted during the preparation of the 2013-2015 Interim Strategy.

**In country Process.** The design process of the new COSOP was launched in February 2015, with a meeting of the high-level in-country Country Programme Management Team (CPMT), which identified broad areas of priority.

IFAD experts with experience from other countries in the region and beyond were fielded to assist in designing a COSOP discussion paper in August 2015. This mission served the purpose to conduct extensive consultations took with the government and key partners, including farmers' organisations, the private sector, development partners and project teams to identify lessons, discuss priorities and explore collaboration opportunities. See the list of stakeholders consulted below. The COSOP drafting team also visited Sulawesi Island to see prospective project areas and meet with local government, farmers, farmers organizations and other partner. This mission produced an expanded COSOP draft to further inform the discussions and identified the project pipeline.

A second mission was fielded in March 2016 to discuss the draft COSOP with Government institutions in March 2016, and in particular with the Ministry of Finance, BAPPENAS, the Ministry of Agriculture, the Ministry of Marine Affairs and Fisheries and the Ministry of Village. Follow up consultations with partners and other stakeholders were held.

Final consultations with the government and stakeholders will be held in July 2016 when a national level workshop will be held to discuss and finalize the new country strategy.

Institutions met during the COSOP preparation process include (up to April 2016):

<b>Government of Indonesia</b> <ul style="list-style-type: none"> <li>• National Ministry of Development Planning</li> <li>• Fiscal Policy Agency</li> <li>• Ministry of Finance</li> <li>• Ministry of Agriculture</li> <li>• Ministry of Marine Affairs and Fisheries</li> <li>• Ministry of Village</li> <li>• Ministry of Women Empowerment</li> <li>• Ministry of Youth and Sport</li> <li>• Ministry of Home Affairs</li> <li>• Ministry of Agraria</li> <li>• Ministry of Cooperatives and SMEs</li> <li>• TNP2K (National Poverty Reduction Team)</li> <li>• Bank Indonesia</li> <li>• Indonesia Financial Services Authority</li> </ul>	<b>Civil Society Organizations</b> <ul style="list-style-type: none"> <li>• Farmers' Organisations (WAMTI/SPI/API)</li> <li>• SwissContact</li> <li>• IDH</li> <li>• SNV</li> </ul> <b>Private Sector</b> <ul style="list-style-type: none"> <li>• PISAgro</li> <li>• Bayer</li> <li>• Mars</li> <li>• Veco</li> <li>• Kadin (Chamber of Commerce and Industry)</li> </ul> <b>Bilateral Donors</b> <ul style="list-style-type: none"> <li>• Netherlands</li> <li>• GIZ</li> </ul>
<b>International Financial Institutions</b> <ul style="list-style-type: none"> <li>• Asian Development Bank</li> <li>• The World Bank</li> <li>• International Financial Cooperation</li> <li>• Islamic Development Bank</li> </ul>	<b>United Nations</b> <ul style="list-style-type: none"> <li>• Food and Agricultural Organization</li> <li>• World Food Programme</li> <li>• United Nations Development Programme – UNRC</li> </ul>

IFAD internal consultations. The COSOP was developed under active participation of the in-house CPMT, drawing on IFAD's diverse technical expertise. A launch CPMT was held in October 2015, to brief CPMT members on current status and upcoming process. Another CPMT was held on the first draft COSOP in early May 2016 to prepare the COSOP document for review by the OSC.

# Natural resources management and climate change adaptation: Background, national policies and IFAD intervention strategies

## I. Introduction to the SECAP Study

The International Fund for Agricultural Development (IFAD) has an overarching goal of empowering poor rural women and men to achieve higher incomes and improved food security. Within Indonesia, IFAD's Results-Based Country Strategic Opportunities (COSOP) provides an overarching framework for country programming. The proposed COSOP for Indonesia covers the period from 2015 to 2019. Activities under the proposed COSOP focus on promoting the empowerment of the rural poor to achieve sustainable and resilient livelihoods, through a set of interventions designed to stimulate rural entrepreneurship, increase productivity and improve competitiveness in a diversified range of economic activities in the agriculture and marine resource sectors.

These objectives are pursued through a range of different projects which are implemented in partnership with various ministries and agencies of the Government of Indonesia (GOI), including the Ministry of Agriculture (MOA), the National Development Planning Agency (Bappenas), the Ministry of Marine Affairs and Fisheries (MMAF), and the Ministry of Home Affairs (MOHA) at the national level, along with the equivalent agencies at the provincial and district levels. In addition, international organizations such as the World Bank, the Asian Development Bank (ADB), and the Center for International Forestry Research (CIFOR) play in role in implementing planned and proposed activities under the proposed COSOP.

The forthcoming Indonesia COSOP (2015-19) will serve as the strategic document that IFAD and the GOI will use to plan how to collaborate in the medium-term as well as how to deploy resources to achieve agreed objectives and results. IFAD has agreed to support the GOI to achieve development targets identified in the 2015-2019 Medium-Term National Development Plan, and in particular those related to developing sustainable livelihoods for the poor through entrepreneurship development, the attainment of food sovereignty and the achievement of improved maritime economic development. The targeting of improved resilience and adaptation measures in the agriculture and fisheries sectors in the COSOP are firmly in line with IFAD's Environment and Natural Resource Management (ENRM) Policy (IFAD, 2012), as well as the Climate Change Strategy (IFAD, 2010).

### A. Objectives of the SECAP Study

The Social, Environmental and Climate Assessment Procedures (SECAP) study provides an assessment of social, environmental, and climate issues in relation to IFAD's objectives and target groups, and aims to propose relevant recommendations on how to mainstream climate change and environmental issues in the proposed Indonesia COSOP. The SECAP study's objectives are to provide key environmental and social opportunities and actions to influence IFAD's support to Indonesian rural development efforts towards environmental sustainability and climate-smart development.

The SECAP study accomplishes these objectives by providing vital inputs into the development and decision-making process for IFAD's new COSOP for Indonesia from 2015 – 2019. The SECAP is designed to ensure that the COSOP will support Indonesia national programs and policies to build adaptation and climate change resilience measures in the

agriculture and rural development sectors. The SECAP proceeds to identify lessons learned and impacts from previous IFAD and other donor projects. Finally, the SECAP proposes several new activity concepts to access other sources of funds to enhance environmental and climate resilience in the agriculture and rural development sectors. The overall objectives of the SECAP study are:

- Identify key linkages between rural poverty and environment/climate change;
- Provide key environmental and social opportunities and actions to influence IFAD's support to Indonesia's rural development efforts towards environmental sustainability and climate-smart development;
- Identify priority ENRM, social and CC issues based on IFAD's comparative advantage for deepening its policy dialogue with the GOI; and
- Identify opportunities for interventions financed by the Adaptation for Smallholder Agriculture Programme (ASAP) and/or the Global Environment Facility (GEF).

These objectives help to ensure that the SECAP provides strategic inputs to the forthcoming COSOP for Indonesia regarding effective integration of strategic ENRM and climate change issues and interventions. The expected results of the SECAP are: (i) an assessment of the environmental (and relevant social/economic/institutional) issues with a focus on agriculture and food security; (ii) the identification of links with other sector policies, strategies and plans; and (iii) the provision of specific measures to optimize climate change adaptation, environmental management, and sustainable resource use in the proposed COSOP for Indonesia. These results should facilitate IFAD's country programme in building the resilience and adaptive capacity of the agricultural and rural development sectors in the country.

## B. Approach And Methodology

The SECAP study follows the methodology outlined in "Managing Risks to Create Opportunities: IFAD's Social Environmental and Climate Assessment Procedures" (IFAD, 2014) as well as overarching IFAD strategy documents such as the Climate Change Strategy (IFAD, 2010) and the Environment and Natural Resource Management (ENRM) Policy (IFAD, 2012). Both documents address the increasing demands from IFAD clients for innovation on climate change mitigation and adaptation responses.

IFAD engaged an environmental and climate change specialist to prepare the SECAP study between October 2015 and April 2016. The process for developing the SECAP included a review of current literature and GOI policy documents and extensive consultations with COSOP implementation partners and other stakeholders from the government, civil society, donor, and academic sectors. The stakeholder interviews were chosen based on ministries' and donor partners' prior or planned collaboration with IFAD projects. The SECAP study also consulted with GOI officials from GOI ministries that have fully developed adaptation and resilience strategies. Given the COSOP's objective to facilitate the access of small-scale producers to new and affordable technologies, a number of private sector organizations working at the forefront of agricultural service technology were also consulted. The consultation process and development of the SECAP was conducted between October-December 2015. A full list of stakeholders that were consulted is included in the appendices.

## C. Description Of Meetings With Stakeholders

The SECAP specialist met individually with key officials in the following GOI ministries and departments, where they discussed the GOI's principal policies and programmes dealing

with ENRM and CC issues, and then gathered documentation on current policies, programmes and plans:

- National Development Planning Agency (Bappenas)
- Ministry of Marine Affairs and Fisheries (MMAF)
- Ministry of Agriculture (MOA)
- Ministry of Environment and Forestry (MEF)
- Ministry of Public Works (MPW)

The SECAP specialist also met with officials from international organisations including the World Bank (WB), the Asian Development Bank (ADB), the United Nations Development Programme (UNDP), the United Nations Office for REDD+ Coordination (UNORCID), and the United Nations Environment Programme (UNEP). Finally, the SECAP specialist met with a number of leading NGOs and academic organisations that play a role in the agriculture and rural development sector in Indonesia, including Walhi, IDH, the Center for International Forestry Research (CIFOR), the Bogor Agricultural University (IPB), the University of Palangkaraya, and the Urban and Regional Development Institute (URDI). In all of these meetings the SECAP specialist gathered information on the principal ENRM and CC issues relevant to Indonesia and collected documentation on the programs and projects planned and ongoing for the key sectors. A table of the projects and programmes supported by the above organisations is included in the appendices.

## II. National Context

### A. Description Of Physical And Biological Environment

**Physical environment.** Indonesia is an archipelago in Southeast Asia that extends 5,120 kilometres from east to west and 1,760 kilometres from north to south. The country encompasses 17,508 islands, approximately 6,000 of which are inhabited. There are five main islands: Sumatra, Java, Kalimantan, Sulawesi, and Papua; two major archipelagos (Nusa Tenggara and the Maluku Islands); and sixty smaller archipelagos. Kalimantan is part of the larger Borneo island shared with Malaysia and Brunei, Timor is shared with Timor Leste, and Papua and West Papua provinces are on the island of New Guinea that is shared with Papua New Guinea. Indonesia's total land area is 1,919,317 square kilometres. Included in the country's total territory holdings are another 93,000 square kilometres (35,908 sq mi) of inland seas, which include straits, bays and other bodies of water. The additional surrounding sea areas bring Indonesia's generally recognized territory (land and sea) to about 5 million square kilometres. The government, however, also claims an exclusive economic zone, which brings the total to about 7.9 million square kilometres.

**Soils.** Indonesia is endowed with fertile soils disbursed across its many islands, which in their natural state are ideal for agriculture, forestry and wildlife production. The widespread soil types are Andosol, Latosol, Regosol, Rendzina, Lateritic, Litosol, Grumosol, blue Hydromorph, Alluvial and Podsol (Deptan, 1988; Muir, 1996). Andosols are quite fertile, suitable for horticulture and plantation crops such as tea in Java. Regosols of quartz sand are mainly found in Kalimantan and are not suitable for dry-land farming. Grumosols are heavy with a high Ca content; in the lowlands they are used for growing crops. The five big islands of Sumatra, Java, Kalimantan, Sulawesi, and Papua consist of lowland, hilly land, upland and mountain areas with altitude ranges of 0 – 500, 500 – 1,000, 1,000 – 3,000 m and higher than 3,000 m, respectively (Ischak, 1994). With its vast and abundant fertile

soils, Indonesia is a major global producer and exporter of rice, palm oil, coffee, rubber, cocoa, spices (nutmeg, cinnamon, and cloves) and other tropical products.

**Hydrology.** Inland freshwater resources are abundant in Indonesia, covering areas of 534.000 km<sup>2</sup>, which consist of 394.000 km<sup>2</sup> of swampy areas, 119.500 km<sup>2</sup> of water catchment areas and flood plains, 16.000 km<sup>2</sup> man-made lakes and 5000 km<sup>2</sup> natural lakes. Throughout the country there are 521 lakes, of which fourteen (14) are deeper than 100 m, eight (8) are deeper than 200 m, and three (3) are deeper than 400m. The biggest lakes are over 1,130 km<sup>2</sup> wide with depths of approximately 590m. In sum, these lakes contain 500 km<sup>3</sup> of freshwater, which as a whole is available in an average annual quantity of 15,500m<sup>3</sup> per capita. That amount is globally significant and is about 25 times that of the world average, which is only about 600 m<sup>3</sup> per capita annually. However, the abundance of freshwater waters is not evenly distributed within the country and its availability also depends on seasonal changes. These conditions are exacerbated by environmental degradation and changes in the hydrological cycle (UN ESA, 2004).

**Forests.** Indonesia has an estimated 94 million hectares of natural and planted forests, representing around 52% of its total land area. Indonesia's forests provide habitats for 17% of the world's bird species, 16% of reptiles and amphibians, 12% of mammals, and 10% of plants. The FAO in 2010 estimated that Indonesia's forest cover was reduced by some 24.1 million hectares between 1990 and 2010 (from 118.5 million ha in 1990 to 94.4 million ha in 2010). About 77% of this area was primary tropical forest, the most biologically diverse and carbon-dense forest type. There was an average rate of annual forest cover loss of 1.87 million hectares between 1990 to 1996. The rate continued to increase during 2000-2003, and then declined from 2003-2006 to 1.17 million hectares per annum. It further declined to 0.8 million hectares per annum during 2007-2009. It should be noted that the area burned by forest and land fires was lower during the recent La Nina and El Nino phenomena, which also corresponds to the decline in rate of forest cover loss. (FAO, 2010)

A related trend has been the decline in the commercial harvesting and processing of Indonesia's natural forests over the previous two decades. Though the production of both plywood and sawnwood increased in the 1980s, they declined in the 1990-2005 period. The availability of large-diameter commercial timber was impacted by overharvesting and degradation. At this point Indonesia's forest sector has partly transitioned to pulp production. From a low of just 0.5 million tonnes in 1989, pulp production increased more than tenfold by 2005. As a result, pulp accounted for some one-third of the total of wood products in Indonesia in that year (Ministry of Forestry, 2012).

**Peatlands.** Indonesia has approximately 50% of the world's tropical peatlands. Peatlands are formed from partially decomposed plant material that has accumulated over thousands of years under waterlogged conditions. The most well-known benefits and roles of peatlands globally are sequestering as much as 30% of global soil carbon (equivalent to double the total carbon in the biomass of all the world's forests) in the organic matter and conserving biodiversity of flora and fauna and particularly endangered species. Indonesian peatland forests are of particular importance for the survival of the Sumatran Orangutan (*Pongo abelii*), Sumatran Tiger (*Panthera tigris sumatrae*), Sumatran Rhinoceros (*Dicerorhinus sumatrensis*), as well as the lesser-known rare species such as the White-winged Duck (*Cairina scutulata*), Storm's Stork (*Ciconia stormi*), and False Gaviol (*Tomistoma schlegelii*), whose small populations are mainly restricted to the peat swamp forests. Peatlands in the coastal areas, such as on the east coast of Sumatra, act as freshwater buffers against saltwater intrusion and they protect valuable agricultural areas (on clay soils) between the peat and the sea.

The original area of tropical peatlands, both forested and non-forested, in Indonesia has been estimated at about 20 million ha. From 1987 until 2000, 3 million ha were cleared and converted or destroyed, leaving an area of about 17 million ha. Nine million ha are in Sumatra and Kalimantan with about eight million remaining in Papua and West Papua. Of the 17 million ha in 2000, an estimated 10.5 million ha was under forest cover: 3.56 million in Kalimantan, 3.71 in Papua, 3.16 in Sumatra, with small areas on the island of Bangka. Between 2000 and 2005 a further 1.04 million ha of peat swamp forest was deforested, mostly for oil palm plantations. Almost 78% of the loss of peat swamp forests in this period occurred in Sumatra. Of the area deforested, about 75% was drained and 24% (246,000 ha) was estimated to have been burned as well as drained, maximizing the loss of carbon to the atmosphere. Peat thickness in Indonesia (Sumatra, Kalimantan and Papua) ranges from less than one meter to over 12 meters, and in some places reaches as deep as 20 meters. (Ministry of Forestry, 2008)

Coastal & Marine Environment. Indonesia consists of about 17,508 islands and has a coastline of about 81,000 km. Of its population of about 225 million, 60 percent of people live within 60 km of the sea. Indonesia has at least 50,000 km<sup>2</sup> of coral reefs, representing roughly 18 percent of the world's coral reefs. The Indonesian coastal and marine sector, and in particular the small-scale fisheries supported by coral reef ecosystems, is a significant productive asset for the country and the millions of poor. Healthy coral reef ecosystems can annually produce marine products worth on average US\$15,000 per square kilometer, and are an important source of food and livelihoods for about 10 thousand coastal villages across the country. However, almost two-thirds (65%) of Indonesia's coral reefs are considered threatened from overfishing, and almost half are considered threatened specifically from destructive fishing practices. (World Bank, 2009)

Climate. As an equatorial country, Indonesia's climate is typically equatorial with hot and humid conditions throughout the year. The presence of warm waters surrounding the islands ensure that temperatures on land remain fairly constant, with the coastal plains averaging 28°C, the inland and mountain areas averaging 26°C, and the higher mountain regions, 23°C. Indonesia's climate is affected by circulations from the Asian-Australian monsoon system that control the country's annual rainfall patterns. This annual variation of rainfall in the monsoon region is attributed to a similar phenomena to that found in the Indian Ocean known as the Indian Ocean Dipole (IOD) phenomenon (Saji et al., 1999). There are generally annual and bi-annual cycles in the season patterns of rainfall in Indonesia. The Meteorological, Climatological and Geophysics Agency (BMKG) divides rainfall seasonal patterns throughout the country on the basis of three types of rainfalls: monsoonal, equatorial, and local. (Bappenas, 2012)

Temperature varies little from season to season, and Indonesia experiences relatively little change in the length of daylight hours from one season to the next. Indonesia's position between the Indian and Pacific oceans means that its climate is strongly influenced by conditions in both of these oceans. It experiences year-to-year variability in climate linked with both the El Niño Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD). El Niño influences the monsoons in the region; generally bringing warmer and drier conditions. La Niña brings wetter and colder conditions. The ENSO usually results in extreme droughts in Indonesia every few years, as for example in 1982/1983, 1997/1998 and 2006/2007. (BMKG, 2015) The positive correlation between El Niño episodes and forest and peat land fires is a significant national issue. Forest and peat land fires are a recurrent issue in Indonesia, resulting in severe impacts in terms of human health, biodiversity and the economy, and exacerbating greenhouse gas emissions.

The mean annual temperature in Indonesia has increased by around 0.64° C since 1960, at an average rate of 01.4° C per decade. Observed temperature increases are very similar in all seasons, but more rapid over the larger western islands in the west of Indonesia. The frequency of hot days and hot nights has increased significantly since 1960, especially during the summer months. The average number of 'hot' days per year has increased by 88 (an additional 24% of days) between 1960 and 2006. The rate of increase is seen most strongly during the summer months when the average number of hot July, August, and September (JAS) days has increased by 11 days per month (an additional 36% of JAS days) over this period. The average number of 'hot' nights per year in Indonesia has increased by 95 (an additional 26% of nights) between 1960 and 2006. The rate of increase is seen most strongly in April, May, and June (AMJ) when the average number of hot AMJ nights has increased by 13.8 nights per month (an additional 44% of AMJ nights) over this period. The frequency of cold days has increased slightly whereas the frequency of cold nights, annually, has decreased significantly since 1960. The average number of 'cold' nights per years has decreased by 24.7 (6.8% of nights) between 1960 and 2006. This rate of decrease is most rapid in OND when the average number of cold October, November, and December (OND) nights has decreased by 4.3 nights per month (14.2% of OND nights) over this period. (McSweeney et al., 2010)

**Rainfall.** Indonesia has an average annual rainfall of 2,700 mm. Of this, only about 278 mm (10 percent) infiltrates and percolates as groundwater. The remaining portion flows as runoff or surface water (1,832 mm). This amounts to a total of about 2,100 mm annually or equal to the discharge of irrigation water of about 127,775 m<sup>3</sup>/sec. The total amount of water storage capacity in terms of area is about 13.75 million ha - consisting of lake storage (1.777 million ha or 13 percent), dam and reservoir storage (50 000 ha or 0.4 percent), rivers (2.895 million ha or 21 percent) and inland swamp/polder (9 million ha or 65 percent). (Suprpto, 2002)

Rainfall is varied in spatial and temporal terms. The seasonal movements of the Inter-Tropical Convergence Zone (ITCZ) controls Indonesia's rainfall. The wet-season (November - March) peaks in January and February when the ITCZ is in its southern-most position, and the driest months are through July to September when the ITCZ is north of South-east Asia. Rainfall in lowland areas averages 1800 - 3200 mm annually, increasing with elevation to an average of 6000 mm in some mountain areas. The area's relative humidity ranges between 70 and 90%. On the basis of the analysis of season rainfall in Indonesia as contained in the Biennial Update Report (MOEF, 2015), the increase of rainfall for December-January-February (DJF) occurs in almost all of Java and in the eastern parts of the country, such as Bali, West Nusa Tenggara (NTB), and East Nusa Tenggara (NTT) provinces. For rainfall in June-July-August (JJA), a significant decreasing trend is seen in almost all of Indonesia, with the exception of West Java, South Sulawesi, Papua, and Maluku. (McSweeney et al., 2010)

The mean rainfall over Indonesia has decreased significantly in every season, at an average rate of 7.8mm per month (3.6%) per decade since 1960. Trends are similar in all seasons, varying between -7.5mm (3.3%) per decade in OND to 8.9mm per month (3.6%) per decade, but the greatest proportional decreases have been seen in the dry season in July, August, and September (JAS), at -4.8% per decade. The observed maximum and 1- and 5-day rainfalls show substantial decreases in magnitude since 1960. 1-day maxima have decreased significantly by an average of 4.7mm per decade in January, February, and March (JFM) and 5mm per decade in OND. The annual trend in 5-day maxima is negative, decreasing by 20.2mm per decade. 5-day maxima trends are negative for all seasons, with the largest decreases in JFM (by 1.5mm per decade). (McSweeney et al., 2010)



## B. Description of sociocultural context

Indonesia' macro-economic development during the past 30 years is to a large extent based on its natural resources. However, these resources have been exploited unsustainably and communities living in the vicinity of formerly resource rich areas are experiencing increasing levels of poverty. Confusing land classification and vested interests undermine the efforts to curb deforestation rates. Customary land rights of smallholders and local communities are not officially recognized, leading to an increasing number of land conflicts with large investors (OECD, 2012). Rapid decentralisation has created additional challenges for environmental and natural resource management. These challenges can, however, be turned into opportunities; there is a high potential for pro-poor economic growth, provided there are improved governance mechanisms, effective regulatory frameworks, and rigorous environmental and social safeguards. Sustainable and equitable use of the country's natural resources is a prerequisite to keeping Indonesia's economy competitive in the long run.

The agriculture and rural development sector remain critically important to Indonesia's national economy and to the livelihoods of the Indonesian people, particularly smallholders living in rural areas. While the GDP share of agriculture has come down to 12% (2014), it is still the main source of income for one third of the population and for 64% of the poor. With rich volcanic soils and a tropical climate suitable for growing a variety of crops, Indonesia is a major global producer of tropical products such as palm oil, rubber and, to a lesser extent, copra, cocoa, coffee and spices. The sector has been growing by an average of 4.6% over 2004-2009, but this has been attributed mostly to a shift from food staples to high value crops as well as an expansion of cultivated areas. There is enormous potential for increasing crop productivity as a majority of smallholders still operate close to subsistence level. Low availability of modern inputs, lack of appropriate technologies, low access to irrigation (less than 50% of the 7.2 million irrigated hectares are fit for use), high post-harvest losses and limited access to finance, extension and other support services contribute to low yields and low returns.

Key issues and constraints in the agricultural sector include difficult access to markets due to limited connectivity in remote areas, high transaction costs, the lack of storage and cold-chain infrastructure and farmers' lack of market information and marketing skills further affect productivity and earnings. The share of the national budget accruing to the agriculture sector doubled from 2.7% in 2001 to 5.6% in 2009. However heavy central spending on subsidies (inputs and credit) made available to the vast majority of farmers has constrained resource allocation to the provision of public goods and services such as research, extension and infrastructure. The lack of an enabling environment as well as increased land fragmentation in the more densely populated areas contribute to the number of farmer households (26.2 million in 2013) decreasing by an average of 500,000 every year, mostly affecting families with less than one hectare of land.

Rural poverty and unemployment are two of the most critical issues facing Indonesia currently and in the short to medium-term future. Strong economic growth in Indonesia has helped to reduce poverty, but the pace of poverty reduction is slowing. Recovery from the Asian Financial Crisis of 1997-98 has seen steady economic growth, a growing shift of labor from agriculture to services, and solid job creation in cities. These trends have contributed to a halving of the poverty rate, from 24% in 1999 to 11.4% by early 2013. However, the rate of poverty reduction has been slowing. In 2012 and 2013, poverty declined by only 0.5 percentage points each year -- the smallest declines in the last decade. Many Indonesians who have climbed out of poverty remain just above the line. In 2013, around 28 million

Indonesians lived with less than IDR 293,000 (roughly \$25) a month. An additional 68 million made do with not much more. Small shocks can drive them into poverty, and indeed many families fall in and out of poverty. Based on 2010 data, over half of the poor each year were not poor the year before. A quarter of Indonesians suffer from poverty at least once in a three year period (World Bank, 2015).

Poor people in Indonesia remain concentrated in rural areas. The ADB estimates that 63% of the total poor population resides in rural areas of the country. This marks a substantial reduction over the past forty years: rural poverty incidence was at 40.4% in 1976 and fell to 19.1% between 1976-1996. There was a spike following the Asian financial crisis in 1998-2000, but during the period 2006-2011, the ADB estimated that poverty incidence had declined to 15.6% of the rural population. There remains substantial disparity in rural poverty rates among regions, with the most densely populated parts of the country (West, Central, and East Java provinces; Jakarta and Yogyakarta special administrative areas; Banten province) having the largest numbers of poor persons. Over 60% of the country's poor population lives in Java and Bali, and another 20% in Sumatra (ADB, 2012).

Indonesia's relative success in reducing extreme poverty masks the extreme vulnerability of the bottom 40 percent of households that are not officially poor but are prone to falling back into poverty. Together, the poor and the extremely vulnerable amount to 38 percent or very close to what the World Bank considers to be the "bottom 40 percent" of the population. The ability of the poor to permanently exit poverty is proving extremely difficult. While productive employment was a significant factor, so was the precariousness of 'prosperity' among the bottom 40 percent, where shocks prompted by food price increases, illness or loss of a job often put families back into poverty. In 2009, 15 percent of the poor escaped poverty, but were poor again in 2010 (Susenas data). Not only can shocks prevent those with jobs from escaping poverty, but fear of risk—and a lack of insurance and savings mechanisms to effectively deal with risk—can lead people to avoid what they perceive as risky but potentially higher return activities (World Bank, 2015).

Rural women. Most rural women work as home-based workers, plantation workers or on family farms. Whether employed in the formal or informal sector, they earn on average 17% less than men. Poor women are often physically overworked, increasingly taking over primary production as men migrate. The lack of basic social infrastructure, including access to water, sanitation and energy, and traditional social roles contribute to increasing their burden. Indonesia's Civil Code stipulates that men and women have equal ownership rights and the 1974 Marriage Law formally adopts the concept of joint ownership of property purchased during marriage. However, only a few parcels of land are registered in the joint name of husband and wife, because of a lack of awareness and of traditional norms. By law, women also have equal access to financial services, and have the right to independently conclude contracts. Women have significant decision-making powers within the household but have limited access to information and formal decision-making structures. They are poorly represented in farmers' groups, whose members are chiefly (male) heads of households, so that extension activities seldom include women, except for nutrition and family planning. Poor women-headed households (3 million in the poorest three tenths, or around 12 million people) stand higher risks of being affected by shocks.

Indigenous peoples. The GOI recognizes 1,128 ethnic groups. The Ministry of Social Affairs identifies some indigenous communities as *komunitas adat terpencil* (geographically-isolated indigenous communities). However, many more peoples self-identify or are considered by others as indigenous. Recent government acts and decrees use the term *masyarakat adat* to refer to indigenous peoples. The national indigenous peoples'

organisation, Aliansi Masyarakat Adat Nusantara (AMAN), estimates that the number of indigenous peoples in Indonesia falls between 50 and 70 million people.

In addition to the terms *masyarakat hukum adat* and *masyarakat adat*, another term and concept for indigenous peoples is *komunitas adat terpencil* (KAT). The Ministry of Social Affairs uses this term in their policies and programs for the empowerment of indigenous peoples in remote areas. They define KAT as a group of people bound by geographical unity and shared economic and/or sociocultural systems. More importantly, the KAT are distinct because they are poor, living in remote areas and/or socio-economically vulnerable. The KAT empowerment program originated from the village development policies of former President Suharto, where tribes living in remote areas were integrated into 'modern' socioeconomic systems designed by the state, and imposed through the implementation of 'traditional' village structures. (IWGIA, 2015)

Adat peoples in Indonesia mainly live in rural environments that are rich in natural resources. However, many of them suffer from impoverishment because of the transfer of land and natural resource ownership, which has resulted in the loss of traditional livelihoods (IFAD, 2012b). The ADB found in 2002 that indigenous peoples in Indonesia were disproportionately represented amongst the poorest of the poor in Indonesia. The ADB study identified a number of basic causes of poverty among indigenous peoples: (i) inadequacy of access and unavailability of facilities and services for the fulfilment of basic needs: the absence of means for education and health services and the lack of roads, markets, clean water and other services are regarded as a reflection of a low quality of life; (ii) sociocultural problems that include values and behaviour that are perceived as inimical to the improvement of community life: low work ethics, lack of creativity, consumptive behaviour and a short-term outlook to longer-term sustainable development; and (iii) structural problems, namely, policies and regulations rooted in the wider system that do not favour indigenous peoples (ADB, 2002).

The third amendment to the Indonesian Constitution recognizes indigenous peoples' rights in Article 18b-2. In more recent legislation, there is the implicit recognition of some rights of peoples referred to as *masyarakat adat* or *masyarakat hukum adat*, including Act No. 5/1960 on Basic Agrarian Regulation, Act No. 39/1999 on Human Rights, and MPR Decree No X/2001 on Agrarian Reform. Act No. 27/2007 on Management of Coastal and Small Islands and Act No. 32/2010 on Environment clearly use the term *masyarakat adat* and use the working definition of AMAN. The Constitutional Court in May 2013 affirmed the constitutional rights of indigenous peoples to their land and territories, including their collective rights over customary forest.

While Indonesia is a signatory to the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), government officials argue that the concept of indigenous peoples is not applicable as almost all Indonesians (with the exception of the ethnic Chinese) are indigenous and thus entitled to the same rights. Consequently, the government has rejected calls for specific needs by groups identifying themselves as indigenous.

In May 2013, Indonesia's Constitutional Court accepted a Judicial Review of some parts of Act No. 41/1999 on Forestry (*Undang-Undang Kehutanan* or UUK), declaring that adat peoples' customary forests should not be classed as "State Forest Areas." This comes as a response to a petition submitted by the Indigenous Peoples' Alliance of the Archipelago (AMAN) in March 2012. Ruling No. 35/PUU-X/2013 separates customary forests from their previous classification as State forests. Indonesia's 1999 Forestry Law previously said, "customary forests are state forests located in the areas of custom-based communities". The Constitutional Court's ruling deletes the word "state" from that sentence, and revises the

Law so that state forests no longer include customary. As of 2016, the formal implementation of the Ruling No. 35 / 2013 has yet to be codified in individual line ministries' work plans, stalling progress on restoring local management rights to adat communities throughout Indonesia.

In 2014, the government launched the much-anticipated One Map Initiative as stipulated in Law No. 4/2011 on geospatial information, which is aimed at helping to resolve disagreements resulting from the use of different data and maps, which often result in land disputes and overlapping permits for plantation and mining operations. On 22 December, the National REDD+ Agency and the Ministry of Environment and Forestry (MOEF) officially agreed to include 4.8 million hectares of indigenous maps in the One Map Initiative. This is a very important step in helping the government identify and recognize where indigenous peoples live, and to ensure that indigenous peoples are included in decision-making, particularly regarding land allocation and issuance of permits.

Also in 2014, the Indonesian Vice-President launched a National Program for the Recognition and Protection of Indigenous Peoples. The Declaration was signed by nine ministries/institutions. The Program has a number of targets ranging from the establishment of laws and regulations, legal reform, administrative tools, recovery and institutional strengthening of indigenous peoples and local government. Despite the progressive national policy developments during the course of 2014, the government and Parliament have failed to adopt the Indigenous Peoples Act. Since 2012, indigenous peoples have harboured great hopes for fundamental change in Indonesian law, from the status quo to a system whereby indigenous peoples will finally gain recognition and protection. This hope was strengthened with the inclusion of the Bill on the Recognition and Protection of the Rights of Indigenous Peoples in the National Legislation Program and priorities for 2013.

Rural producers organisations. There are a large number of informal farmers' groups based on traditional solidarity and self-help systems across the country, which offer good opportunities for developing membership-based organisations extending services to members. Structured farmers' groups are not frequent but they exist across value chains, usually as the result of external assistance. Main services provided include input supply, collective marketing, certification (in particular in the cocoa sector), water management (water users' associations), and advocacy and land tenure. The widespread lack of legal recognition of producers' organisations is motivated by past negative experience with state-controlled cooperatives, but it prevents organisations from becoming trusted partners and accessing credit from financial institutions. Other obstacles include the lack of recognition by local authorities, limited structuring beyond the grassroots level and weak technical and management capacities. There are however successful examples demonstrating that, with appropriate support, empowered producers' organisations can play a key role in supplying small-scale producers with services enabling them to raise productivity, match market requirements and earn premium prices. Producers' organisations also have a key role to play in voicing their members' concerns and in defending their interests in policymaking processes up to the national level.

Financial inclusion. Despite rapid development of Indonesia's financial sector in recent years, it is estimated that less than half of the population access to banking services, particularly in the rural areas. In 2014, only 5.88% of the total bank lending benefitted agriculture and most of it went to larger, commercial plantations. Indonesia has also known a fast growing of the microfinance sector, including 15% of regulated microfinance providers and a vast array of NGOs, cooperatives and public district or village-based institutions. Nonetheless the majority of smallholders do not have access to finance, because of low financial literacy and lack of collaterals. Furthermore there is a lack of risk management

mechanisms to offset risks attached to agriculture production and price volatility. Only 24% of Indonesians had any form of insurance in 2010 and at the national level, agriculture insurance for smallholders is not widely developed. Established in 2011, Otoritas Jasa Keuangan (OJK), or the Indonesia Financial Services Authority, is responsible for the regulation and supervision of bank and non-bank financial institutions, as well as financial education and consumer protection. To raise capacity in that sector, the OJK is planning to create a Knowledge Centre that would provide learning resources to stakeholders in the financial sector from Indonesia and other countries.

### C. Main Environmental and Climate Change Challenges

The achievement of Indonesia's human and economic development objectives depends on inputs like adequate supplies and quality of water, healthy soil, productive seeds, healthy fisheries, and functioning ecosystems. Many of these inputs are being affected by both climate and non-climate stressors. Non-climate stressors include surface water pollution from poor sanitation systems and a lack of industrial water treatment; land subsidence and a dropping water table due to over-pumping of groundwater; reduced groundwater recharge, soil erosion and sedimentation of waterways due to poor land use practices including deforestation; poorly maintained infrastructure; unsustainable natural resource extraction; and rapid, unplanned urbanization. Based on the SECAP review of the available documentation and discussions with key stakeholders, the following were identified as the principal environmental, social and climate change issues and priorities for the SECAP study to focus on.

#### Climate Change

In Indonesia, the anticipated impacts of climate change will be heavily felt especially by the poor. The influence of observed climate changes is already an event in Indonesia, and the impacts will continue to worsen due to further human-caused climate change.

Temperature increases. Modest temperature increases are expected in Indonesia as a result of anticipated climate change. Since 1990, the annual mean temperature in Indonesia has increased around 0.3 degrees Celsius, and has occurred during all of the yearly seasons. In the year 2020, it is expected that the mean temperature in Indonesia will have increased by 0.36 to 0.47 degrees Celsius, with the highest temperatures increase projected to occur in the Kalimantan islands and the Moluccas. Based on the IPCC-AR4 model, the average temperature rise in Indonesia is predominantly caused by greenhouse gas (GHG) emission effects and may result in approximately 0.8-1°C change between 2020-2050 when compared to the results recorded in the 20<sup>th</sup> century. The mean annual temperature is projected to increase even further by 0.9 to 2.2°C by the 2060s, and 1.2 to 3.7°C by the 2090s (Bappenas, 2013).

The projected rates of warming will be more rapid over the larger Islands of Indonesia and less rapid over the sea and smaller island. Hot days will occur on 35-79% of days by the 2060s and 48-95% of days by the 2090s. This rate of increase is similar in all seasons. Hot nights will occur on 49-95% of nights by the 2060s and 63-99% of nights by the 2090s. This rate of increase is similar in all seasons. Cold days and nights will become less frequent, no longer occurring at all in most models by the 2060s, and not occurring under any of the emissions scenarios by the 2090s (McSweeney et al., 2010).

Rainfall variability. Indonesia is predicted to become wetter, with an overall increase in rainfall, with the range of changes in annual rainfall simulated by different models varies between -28 and +53mm per month (-12% to +20%) by the 2090s. There are, however, large spatial and seasonal variations in predicted rainfall changes. The easternmost islands

generally will have greatest increases in rainfall (-6 to +38%) by the 2090s. The proportion of total annual rainfall that falls in heavy events is projected to increase by all the models, by up to an additional 15% by the 2090s. Projections indicate that 1- and 5-day rainfalls are expected to increase in the future. Annually, 1-day maxima change by 0 to +86mm, and 5-day maxima change by 0 to +123mm is expected by the 2090s (McSweeney et al., 2010).

Climate change is predicted to result in about 2 to 3 percent more rainfall in Indonesia each year (Sari, Maulidya, Butarbutar, Sari and Rusmantoro, 2007). The entire country will experience more rainfall with a considerably large change in the Moluccas. The amplified rainfall is expected to persist and result in a shorter rainy season, with a substantial increase in the risk of floods. For example, the Jakarta floods in February 2007 and March 2012 affected 80 districts and caused traffic chaos paralyzing the affected cities. In the flood more than 70,000 houses had water levels ranging from 5-10 cm, and an estimated 420,000 to 440,000 people were displaced from their homes (Case, Ardiansyah and Spector, 2007).

Overall, the El Nino Southern Oscillation (ENSO) and Indian Ocean Dipole Mode (IODM) phenomena are expected to cause a big decrease in rainfall that leads to severe droughts in Indonesia. The level of climate change risks in Indonesia by region shows that Sumatra is very highly or highly vulnerable to flood, drought, forest fires and water availability. According to Indonesia's Second National Communication (SNC) under the UNFCCC, the extreme dry months in some coastal areas including South Sumatra has increased to 4 months over the period of 2000-2010 – and even peaked to 8 months in 2002, a level that is considered the longest dry season in five decades- while the over rainfall in most of Sumatra had an increase of 10-50 mm of rainfall during the period of 1980-2010 compared to 1961-1990 (INDC, 2010).

Sea level rise and Ocean Acidification. Global sea levels are projected to rise between 28-43 cm (Nicholls et al, 2007, in IPCC) or as much by 70 cm by the end of the 21<sup>st</sup> century relative to recordings from 1980-99. Rises in storm surges coupled with land subsidence are expected to increase damage to coastal and island areas, an issue particularly relevant to an archipelagic nation like Indonesia. Indonesia's record sea level rise has increased from 0.8 mm/y to 1.6 mm/y since 1960 and then jumped to 7mm/year in 1993. Between 1993 and 2008, the average rate of sea level rise ranged from 0.2 cm/year to 1 cm/year with an average of approximately 0.6 cm/year. The increase in sea level rise is a significant potential threat to Indonesia consisting of many islands and small islands. Considering the melting ice dynamics and thermal expansion of seawater, Indonesia could experience up to 175cm of sea level rise by 2100 (Bappenas, 2010).

The warming of ocean water will also have drastic impacts on marine biodiversity. Climate change will subject Indonesia's ocean waters to an increase in temperature of 0.2 to 2.5 degrees C. The 50,000 km<sup>2</sup> of coral reefs in Indonesia, about 18 percent of the world's total, are already in dire straits. The El Nino event in 1997 – 1998 alone was estimated to have caused coral bleaching to 16 percent of the world's coral reef. In a 2000 survey, only 6 percent of Indonesia's coral reefs were considered to be in excellent condition, 24 percent in good condition, and the remaining 70 percent are in fair to poor condition (World Bank, 2009).

Water and vector-borne diseases. In the late 1990s, El Nino and La Nina were associated with outbreaks of malaria and dengue. Malaria has spread to high elevations where it was detected for the first time as high as 2103 m in the highlands of Papua in 1997 (Epstein, et al., 1998). In 2004, it appeared that a more virulent strain of the potentially deadly dengue fever virus might have emerged. Dengue fever has been spreading faster and killing more victims than in past years, especially during La Nina years. The links between climate

change and these diseases and health problems is poorly researched. The IPCC's Fourth Assessment Report (2007) stated that there is too little data to reliably confirm perceptions of an increase in extreme weather events, which may be due to increased reporting. However, perhaps as a forewarning of what is to come, the rise in the number of dengue fever cases during the rainy seasons in Indonesia, particularly in Java, could have been partially caused by warmer climates. Research has confirmed that warmer temperature has led to mutation of the dengue virus, making cases more difficult to handle, thus leading to an increase in fatalities.

#### Forests and Peatlands

Land use change from forest to other land uses has taken place in most peatland ecosystems in Indonesia. The size of relatively intact peatland forests in Indonesia has decreased from 25 million hectares (approximately 50% of worlds' total tropical peatlands) to 15 million ha between the period from 1980 - 2011. Approximately 4 million ha has been converted to oil palm or pulp and paper plantations, another 4 million ha opened for agriculture (much of it abandoned), and an estimated 10 million ha logged. Over the past 25 years there has been an unprecedented level of peatland degradation in Indonesia with nearly 4 million ha affected by fire, 5-6 million ha drained, and up to 10 million ha logged. If this trend continues, most of the peatland resources in Indonesia will be degraded or destroyed in the next 10-15 years.

Peatland destruction happens by deforestation and drainage, followed by burning to remove unwanted surface debris (often more than one round of burning on each land parcel). Drainage has major effects causing drying out of peat swamps, which increases susceptibility to fire and subsidence and causes high emissions of greenhouse gases; disruption of the regulation and maintenance of hydrological balance in dry and wet seasons, which is critical to preventing floods and providing water supply to surrounding areas; biodiversity conservation of endemic flora such as Jelutung (*Dyera polyphilla*), and Meranti (*Shorea* spp) and various fauna including orangutan (*Pongo abelii*), False Gharial (*Tomistoma schlegelii*), Sumatran Tiger (*Panthera tigris sumatrae*), Honey Bear (*Helarctos malayanus*), Tapir (*Tapirus indicus*), White Winged Wood Duck (*Cairina scutulata*) and the Lesser Adjutant (*Leptoptilos javanicus*), which are designated as threatened and endangered species; and loss of high value timber such as Ramin (*Gonistylus bancanus*) and non-timber forest products such as sap of Jelutung, and rattan.

Decreasing water levels by 70 cm can cause subsidence rates of more than 5 cm/year and an emission of 70 tCO<sub>2</sub>/ha/yr. Peatland fires undermine carbon stocks, national economies, and public health, i.e. premature deaths from respiratory disease. In 1997, for example, burning peatland and vegetation in Indonesia contributed an estimated 13-40% of the mean annual global carbon emissions from fossil fuels during the fire season (Case et al., 2007). The regional impact of trans boundary smoke haze pollution is massive; for example it is estimated that the 1997-1998 haze disaster cost the region US\$9 billion. The health and economy of some 50 million people in 5 countries in the region are affected by annual events of haze, in particular in Indonesia, Singapore and Malaysia.

Early estimates of the total economic costs of the fires in 2015 in Indonesia alone exceed US \$16 billion. This is more than double the damage and losses from the 2004 tsunami (which affected provinces in Indonesia and other countries), and equal to about 1.8% of Indonesia's Gross Domestic Product (GDP). This estimate includes losses to agriculture, forestry, transport, trade, industry, tourism, and other sectors. Some of these costs are accounted in direct damage and losses to crops, forests, houses and infrastructure, as well as the cost of responding to the fires. Many of the economic losses result from the disruption of air, land and sea travel due to the haze. These damages and losses are expected to have serious

impact on the economic growth rate of affected provinces and the government's efforts to reduce poverty in the hardest-hit regions, such as Central Kalimantan (World Bank, 2015).

Peatland degradation in Indonesia at the macro level has mostly been driven by: (i) increasing demand for palm oil for food, industrial, and biofuel sectors; (ii) increasing demand for pulp, paper, and timber; (iii) growing population and shortage of alternative agricultural land in peatland regions; (iv) poor inter-agency coordination, weak governance, and inadequate enforcement. Peatland fires are mainly driven by: (i) intentional land clearing for agriculture; (ii) limited enforcement; (iii) limited focus on fire prevention; (iv) inadequate fire-control during the dry season; and v) climate change. While peatlands in Indonesia store an estimated 80 billion tons of carbon, equivalent to approximately 5% of all global soil carbon, individual, large peatland fires can release up to 1,000 tCO<sub>2</sub>/ha during the fire season. An estimated 1.5 to 2 billion tons of carbon dioxide was released per annum from peatland degradation in Indonesia over the last 10-15 years, comprising 4-6% of global fossil fuel emissions (World Bank, 2015).

#### Land and Soil Degradation

Indonesian agriculture has maintained high levels of productivity in the main categories of crops production, i.e. lowland and upland rice, and maize. Rice is grown under intensive cropping with irrigation systems (lowland rice) and rain fed or upland conditions (upland rice). Under dependable irrigation two crops per year are commonly grown by farmers, and occasionally up to five crops can be planted in a 2-year period. The production of lowland rice is highly concentrated on Java, followed by Sumatera and Sulawesi. The share of harvested area and production of rice in Java from 1998 to 2002 has been nearly constant at around 50 percent. The average yield of brown rice grain was higher on Java (5 tons/ha) than in the other regions (4 tons/ha). The total annual harvested area of lowland rice did not change much during the five-year period; it is about 11 million ha.

1.

There does not appear to be any comprehensive and recent study on the impact of land degradation in the country. Magrath and Arens (1989) conducted an analysis of the on-site costs of soil erosion for mainly upland rainfed cropping systems on Java, using the change in productivity approach. As net profit falls for one crop, there will be adjustments. To account for this, farm budgets for a variety of representative dryland cropping systems across Java were constructed, and used to estimate the effects the yield losses from erosion on net farm incomes. This was done comprehensively for a single year (1985). Assuming that the one-year loss in net income recurs over each successive year, Magrath and Arens obtain a total present value of current and future losses. The latter figure is their estimate of the on-site costs of soil erosion on Java. For Java as a whole, this on-site cost of soil erosion in 1985 was estimated to be approximately \$ 327 million in 1985 or \$562 million in 2007 dollars). This amounted to around 4 percent of the total value of dryland crops on Java in 1985.

A later analysis by Lindert (2000) finds no evidence that chemical land degradation of agricultural land in Indonesia has been a significant problem. Reviewing the period 1940 to 1990, his overall estimate is that the average soil chemical quality declined by 4 to nearly 6 percent. This decline was due primarily to bringing new lands into cultivation in the outlying islands—the soil quality index for the established agricultural areas in Java and Madura may have increased by as much as 10 percent. The area under cultivation more than doubled between 1940 and 1990. Lindert concludes that overall there has been a strong increase in the soil quality index during the time period studied.



### Coastal and Marine Environments

Pervasive poverty in coastal communities is coupled with extensive degradation of coastal resources. In the past 50 years, the proportion of degraded coral reefs in Indonesia has increased from 10 to 50 percent. As a result, many of the small-scale coral reef fisheries in Indonesia have reached a level of exploitation where the only way to increase future production and local incomes is to protect critical coral reef habitats and reduce destructive fishing efforts. Capacity at the district level to assist coastal fishing communities to sustainably manage this important resource is limited. Indonesia's coral reefs are currently undergoing rapid destruction from human activities including: poison fishing, blast fishing, coral mining, sedimentation, pollution and overfishing. In a paper by Cesar et al (1997), these destructive activities are described and the private gains from these activities are compared with the costs to society. It is shown that the social costs by far outweigh the short-term private gains. However, private incentives for short-term profit remain strong.

Pet-Soede et al. (1999) undertook a cost-benefit analysis of blast fishing showing a significant net loss over 20 years. The main quantifiable costs are through loss of the coastal protection function, foregone benefits of tourism, and foregone benefits of non-destructive fisheries. The economic costs to society are four times higher than the total net private benefits from blast fishing in areas with high potential value of tourism and coastal protection. Mous et al. (2000) reviewed the damage from cyanide fishing, and concluded that this may not be as threatening to Indonesia's coral reefs as blast fishing or coral bleaching caused by global climate change.

Around 6.4 million people are engaged in inland and marine fishing and aquaculture. Artisanal producers using traditional means account for 95% of the production of 15.26 million tons (2012), of which aquaculture accounts for 62% and has an average annual growth rate of 34%. Aside from constituting an important source of proteins that the government is promoting to improve food security, marine products have considerable potential for exports, which have been steadily growing over the last years, reaching USD 3.9 billion USD in 2012. Limited access to boats and fishing gear, practices of destructive and illegal fishing, and poor management by aquaculture operators leave considerable scope for modernizing and improving production. The eastern part of the country also suffers from a lack of infrastructure such as port facilities, electricity, transport facilities and fuel supply for vessels (World Bank, 2009).

### D. Impacts of Climate Change on the Agriculture and Rural Development sector

This section draws on the scientific review of climate, environmental, and social challenges listed above and attempts to draw key linkages between rural poverty and environmental and climate change in Indonesia. This section aims to provide the analytical context for subsequent sections that identify environmental and social opportunities for IFAD support to Indonesia's rural development efforts towards environmental sustainability and climate-smart development.

Recent analysis for Southeast Asia (Yusuf and Francisco, 2009) suggests that Indonesia is highly vulnerable within the region to various aspects of a warming climate. The eastern and western portions of densely populated Java, the coastal regions of much of Sumatra, parts of western and northern Sulawesi, and southeastern Papua islands all rank highly on the multiple climate hazard map (see Figure 1).

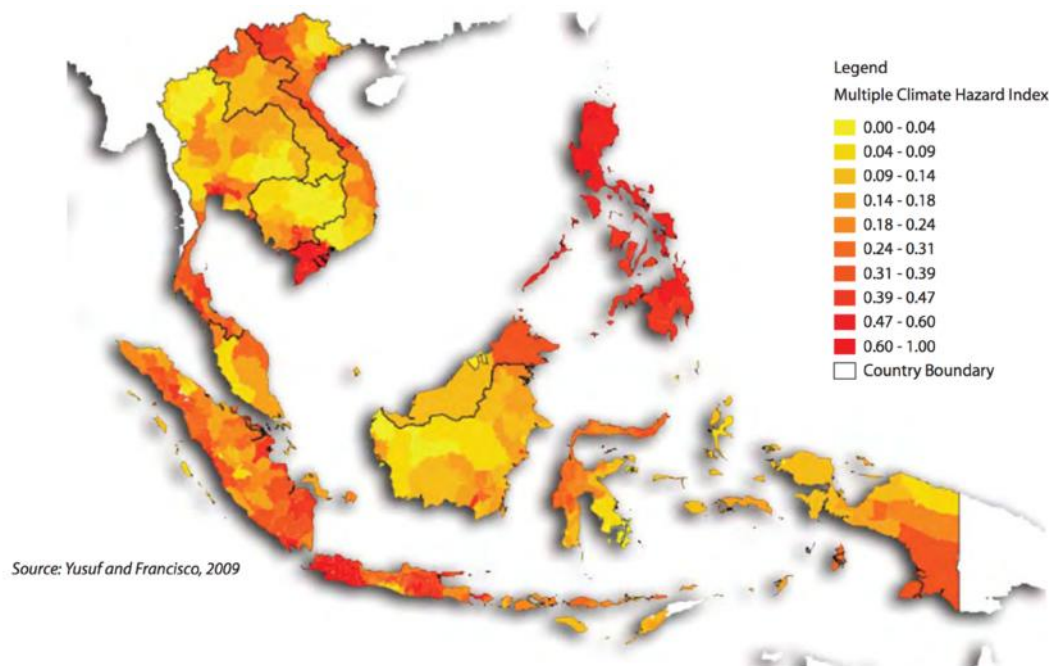


Figure 1: Multiple Climate Hazard Map for Southeast Asia (Source: Yusuf and Francisco, 2009)

Rainfall variability will impact water resources. Water scarcity issues will become a significant problem for many districts throughout Indonesia, especially in urban populations where populations are increasing and industrial activities are taking place. The number of months with water surplus in northern Java, Bali, East and West Nusa Tenggara, North and South Sulawesi, Gorontalo, Lampung and South Sumatra will be almost zero, suggesting that the districts in these provinces will be exposed to long periods of water deficits. In some of those districts the length of deficits could last as long as 12 months, particularly areas in eastern Indonesia including East Nusa Tenggara and West Nusa Tenggara provinces (MOEF, 2010).

Decreased rainfall during critical times of the year may translate into high drought risk, uncertain water availability, and consequently, uncertain ability to produce agricultural goods, economic instability, and drastically more undernourished people, hindering progress against poverty and food insecurity (Case et al, 2007). There will be disproportionate negative impacts on farm laborers and the urban poor. Skoufias et al. (2011) project significant negative impacts of a rainfall shortfall on the welfare of rice farmers in Indonesia, compared to a delay in rainfall onset. Considering these conditions, increasing planting in these islands is not possible, further restricting options for increasing rice production outlined above. Under a changing climate, more districts will have water scarcity problems. A key need is the development of new initiatives to anticipate the scarcity of water due to climate change and increases on water demand, especially in urban areas where populations are increasing and industrial activities are taking place. Inter-basin transfer of water may be one of the potential options to anticipate the scarcity of water in the future. In Indonesia many basins have surplus water resources, while others face serious shortages, especially during extreme drought years. Creation of storages and inter-basin transfer of water from surplus to deficit regions (such as in West Nusa Tenggara) could therefore be an option for achieving more equitable distribution of resources and their optimal utilization. (SNC, 2010)

Food security and agricultural production in Indonesia will be threatened by climate change. Changes in spatial rainfall patterns, the length of the wet season and inter-seasonal variability will have serious implications for many sectors. In the agriculture sector, the current cropping pattern may no longer be the most effective food production system. At present, the pattern used in most of the rice growing areas of Indonesia is rice-rice. The second planting depends heavily on irrigation water. Under extreme drought years, the availability of irrigation water is very limited, usually leading to major rice production losses. Syaukat (2011) provides a useful summary of the anticipated impacts of a 2 degree celsius change in temperature, a 246mm decline in rainfall, and a combination of two climate changes on food production while keeping the cropping area constant (in million tons). Baseline condition indicates crop surplus (deficit) when production systems status quo and with climate changes, while projected demand increases over time due to population growth. Both production and consumption levels are measured by 2050.

Table 1 below shows the data for all commodities, and even for palm oil, which runs a surplus of 7 million tons in the data below, there will be severe deficits by 2050 if moderate climate change of 2 degree celcius and increased rainfall of 246mm were to occur.

Table 1: Anticipated Climate Change Impacts on Major Food Crops from Syaukat (2011)

Commodity	Baseline	2 degree celcius increase in temperature		246mm decline in rainfall		2 degree celcius increase in temperature and 246mm decline in rainfall	
		Food Balance	Percentage of change	Food balance	Percentage of change	Food balance	Percentage of change
Husked rice	-65.0	-89.0	-36.9%	-4.6	-4.6%	-90.0	-38%
Maize	-5.0	-27.0	-440.0%	-20.0	-20.0%	-27.5	-450%
Soybean	-3.0	-23.0	-285.7%	-65.2	-65.2%	-25.2	-952%
Cane sugar	-7.0	-28.0	-300.0%	-8.2	-17.1%	-30.0	-328%
Palm oil	+7.0	-15.0	-314.2%	+5.5	-21.4%	-17.0	-343%

Under a changing climate, the occurrence of extreme climate events (drought) will be more frequent than the current climate and there is a possibility that the dry season will persist for longer periods. Therefore, keeping this cropping pattern in the future may expose Indonesian farmers to more frequent crop failures. Thus, in areas where the pattern of rainfall changes in this direction, farmers should consider alter their cropping pattern from rice-rice to rice-non rice. If the rice-rice pattern is maintained, improvement of water storage and irrigation facilities will be required for compensating the decreased in JJA rainfall. (SNC, 2010)

Sea level rise will inundate productive coastal zones. A rapid assessment conducted by Parry et al. (1992) in a number of locations in Indonesia suggested that sea level rise due to global warming will also reduce local rice supply in Krawang and Subang districts by about 300,000 tonnes. Similarly, maize output would likely be reduced by 10,000 tons--about half of this due to inundation. Sea-level rise would also be likely to affect fish and prawn production. The loss is estimated at over 7000 tonnes and 4000 tons respectively (valued at over US\$0.5m). In the lower Citarum Basin sea-level rise could result in the inundation of about 26,000 ha of ponds and 10,000 ha of crop land. This could result in the loss of 15,000 tons of fish, shrimp and prawns and about 940 000 ton of rice. Parry et al. stated that the socioeconomic implications of this transition in Subang District alone could be the loss of

employment for about 43 000 farm laborers. In addition, more than 81,000 farmers would have to look for other sources of income due to the inundation of their rice fields or prawn and fish farms due to sea-level rise.

Increases in sea level by about 25 to 50 cm in 2050 and 2100 as projected by many models will inundate many parts of the coastal cities of Indonesia. Land subsidence will exacerbate this, increasing the total area that will be inundated permanently. Between 25% and 50% of area in a number of sub-districts in coastal cities such as Semarang, Surabaya, Jakarta and Medan will be under water permanently. The increase of sea level rise may also inundate the outer islands of the country, and this will affect the area of Indonesian territory. The analysis suggests that an increase of sea level of up to 50 cm will not inundate the outer islands of Indonesia permanently. However, in combination with tidal patterns in the region, about five outer islands will temporarily inundate. These islands include Alor (next to Timor Leste), Pelampong (next to Singapura), Senua (next to Malaysia), Simuk and Sinyaunyau (next to India). The increase in sea temperature will also cause serious problems for the coral ecosystems. Wetland International (Burke et al., 2002) reported that the 1997 El-Niño damaged about 18% of the coral ecosystems in South East Asia. In Indonesia, coral bleaching was observed in many places such as in the eastern part of Sumatra, Java, Bali, and Lombok (SNC, 2010).

A changing climate is closely linked to increased peatland and forest fires. Decreasing dry season rainfall and shortening length of wet season will increase the risk of forest fires. Two islands which are very prone to fires are Sumatra and Kalimantan. Based on hotspot density patterns, two provinces that have very high hot spot density are Riau and Central Kalimantan. Hotspot densities in these two islands increased rapidly when dry season rainfall decreases or length of dry season extends, particularly during El Nino years. It was revealed that the hot spot density increase rapidly as the monthly rainfall in dry season by more than 50 mm below normal (Ardiansyah and Boer, 2010). Drought-associated fires increase vulnerability of agriculture, forestry, and human settlements, particularly in peatland areas (Murdiyarso and Lebel, 2007). Human health is also a major area of focus for Asia where the magnitude and type of health effects from climate change depend on differences in socioeconomic and demographic factors, health systems, the natural and built environment, land use changes, and migration, in relation to local resilience and adaptive capacity. (IPCC, 2014)

A further consequence of forest and peat land fires is the generation of large amounts of haze, impacting Sumatra and Kalimantan, in particular, as well as neighboring countries. Research has indicated serious public health impacts caused by haze, including several heart and lung diseases with sometimes-fatal consequences (Marlier et al., 2015). The health risks are particularly high for pregnant women, infants and children.

Climate change will impact rural livelihoods. Smallholder and subsistence farmers and fishermen are among those who will suffer the most from climate change impacts. The anticipated reduction of crop yields due to crop damage and crop failure, waterlogging of soils due to increased rainfall and flooding, increased livestock disease and mortality and salinization of irrigation water can all be expected to affect the activities and productivity of smallholder farms (IFAD, 2011). Smallholder farmers are very vulnerable to current and future climate risks (i.e. ENSO, drought, typhoons). Without the application of productivity improvements and adaptation measures such as those offered by the IFAD COSOP, the Indonesian agriculture and aquaculture sectors stand to suffer significant losses. (SNC, 2010)

There is scarce evidence on the welfare losses that individual households would experience as a consequence of weather and climate shocks. Generally speaking, households at lower levels of income will be the most vulnerable to extreme weather impacts given their geographical locations closer to coastal areas, limited assets and access to services and resources, low human capital and higher dependence on natural resources for their economic livelihoods. While there is wide recognition of the impending threat of climate change on the poor, the SECAP team found that there has been limited academic attention for the quantification of the economic impacts of climate change and identification of household adaptation strategies and measures that could mitigate poverty impacts.

Climate change will intensify water- and vector- borne diseases. In the late 1990s, El Nino and La Nina were associated with outbreaks of malaria, dengue and plague. Malaria has spread to high elevations where it was detected for the first time as high as 2103 m in the highlands of Irian Jaya in 1997 (Epstein, et al., 1998). In 2004, it appeared that a more virulent strain of the potentially deadly dengue fever virus might have emerged. Dengue fever has been spreading faster and killing more victims than in past years, especially during La Nina years (Boer et al., 2007).

The links between climate change and these diseases and health problems is poorly researched. The IPCC's Fourth Assessment Report (2007) stated that there is too little data to reliably confirm perceptions of an increase in extreme weather events, which may be due to increased reporting. However, perhaps as a forewarning of what is to come, the rise in the number of dengue fever cases during the rainy seasons in Indonesia, particularly in Java, could have been partially caused by warmer climates. Research has confirmed that warmer temperature has led to mutation of the dengue virus, making cases more difficult to handle, thus leading to an increase in fatalities.

Increased vulnerability to hydro-meteorological natural disasters in Indonesia. Recent trends in Indonesia indicate that hydro-meteorological natural disasters are overtaking geophysical disasters in terms of incidence, mortality, and damages. Indonesia's National Disaster Management Agency (BNPB) reported that 87% of all disasters that occurred between 1982-2012 were hydro-meteorological disasters in the forms of floods (38%), landslides (18%), typhoons (18%), droughts (13%) and surges (<1%), which together caused close to 14,000 human casualties.<sup>5</sup> In addition, from 2004 to 2013, the economic losses due to disasters in Indonesia amounted to \$11.5 billion USD.<sup>6</sup> However, hydro-meteorological natural disasters have traditionally received less attention than geophysical disasters in terms of disaster risk reduction (DRR) efforts.

Climate change and migration. Climate challenges are also key push factors of migration and Indonesia has a long history of responding to environmental adversity through both temporary and permanent migration. Smallholders and farmers, fishermen, and other IFAD target groups are among the ones who suffer the most from climate change. The country often faces environmental disasters such as earthquakes, tsunamis and volcanic eruptions. Indonesia is also affected by both the northeast and southwest monsoon and, as a result, Indonesians suffer from regular floods and landslides. The islands of Java and Sumatra are low lying, and rising sea levels leave these areas more vulnerable to coastal flooding. Rainfall changes have led to drought in some provinces, which in turn has reduced agricultural production. Equally, in some other regions, rainfall has become excessive. In other parts of Indonesia deforestation has been widespread, exacerbating the effects of climate change and leaving populations more vulnerable to landslides when disasters strike. With the country expected to face multiple impacts of climate change in the years ahead, migration may increase its shift from affected rural areas to other areas less at risk, including other islands in the archipelago nation, or towards countries of the region.

## E. Indonesia's Policy, Regulatory, and Institutional Response to Climate Change

Indonesia signed the 1992 United Nations Framework Convention on Climate Change (UNFCCC) in Rio de Janeiro, which was then ratified into national law through Law No. 6 of 1994. In 2010, Indonesia presented its Second National Communication (SNC) to the UNFCCC, and will continue with its Third National Communication (TNC) in late 2015, which will include an updated National GHG Inventory; reports on the impacts, vulnerability and adaptation measures to address climate change, variability and extreme events; and reports on GHG mitigation policies and measures to address climate change. In 2015 Indonesia also prepared its first Biennial Update Report (BUR) with support from the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP).

In 2010, the MOA released a climate change road map for designing policies, programs, and projects across the ministry's work units that account for the anticipated impacts of climate change on the agricultural sector (Ministry of Agriculture, 2010). The road map was developed for a 20 year time period between 2010-2029 and it is expected that the road map will be used as source material for four periods of the National Medium-Term Development Plan (Rencana Program Jangka Menengah, or RPJM) coordinated and issued by Bappenas. Activities in the road map contribute to the national objective of reducing GHG emissions by between 26 to 41% by 2020, and also contributed towards the RAN-GRK as part of its matrix of activities. Seven priority programs were outlined in the MOA roadmap, focused primarily on the revitalization and rehabilitation of projects in the following sectors: land-use; seed and subsidizers; infrastructure including irrigation; human resources development; farmer financing sources; farmer institutions; and access to technologies.

The MOA roadmap was also used as an input for the BUR, with its activities and programs reviewed against progress made in the actual funding and implementation of the various activities, particularly those related to climate change mitigation and adaptation in the agricultural sector. The BUR found that there remain gaps in the financing, capacity-building, and technical support that the MOA – amongst other ministries – requires in order to continue its positive work in CC mitigation and adaptation.

A summary of financing needs is included in Table 2; technical support needs in

Table 3; and capacity-building needs in Table 4 below.

The outcomes of this needs identification review can serve donors and development partners like IFAD when identifying priority intervention areas where they might cooperate with various line ministries, in particular the Ministry of Agriculture. The below are abridged versions of the needs identification contained in the BUR, and are displayed only for the agricultural sector.

Table 2: Financial support needs for the Agriculture Sector from the Biennial Update Report, 2015

Type of Financial Support Needed	Status (Identified/planned/on-going/planned/completed)	Total Budget Need	Overall financial support needed (a)	Financial support received (b)	Additional financial support needed (c)
Integrated Crops Management for Rice (Ministry of Agriculture)	Planned	IDR 36.5 billion	Not communicated	Not communicated	Not communicated
Community-based organic fertilizer plan (Ministry of Agriculture)	Planned	IDR 25.65 billion	Not communicated	Not communicated	Not communicated
Avoidance of methane emissions using Batamas (excluding fuel substitution) (Ministry of Agriculture)	Planned	IDR 50 billion	Not communicated	Not communicated	Not communicated
Rehabilitation of degraded land on APL (Other Land-Use Areas) (Ministry of Agriculture)	Planned	IDR 100 billion	Not communicated	Not communicated	Not communicated
Integrated crop-livestock management system (Ministry of Agriculture)	Planned	IDR 30.5 billion	Not communicated	Not communicated	Not communicated

Table 3: Technical Support Needs for NAMA Activities in the Agriculture Sector from the Biennial Update Report, 2015

Type of Technical Support Needed	Status	Total Budget	Overall technical support needed	Technical support received	Additional technical support needed
Technology support needs for Agriculture on determining peat fire area and peat fire depth	Planned	IDR 30.5 billion	Seeking support	Seeking support	Not communicated
Technology support needs for agriculture on low methane emitting rice cultivars	Planned	Not communicated	Seeking support	Seeking support	Not communicated

Table 4: Capacity-Building Needs for NAMA Activities in the Agriculture Sector from the Biennial Update Report, 2015

<b>Types of Capacity-Building</b>	<b>Capacity-Building Activities</b>	<b>Status (Identified / planned / ongoing / completed)</b>	<b>Cost for overall capacity-building needed</b>	<b>Support received</b>	<b>Additional support needed</b>
Development of mitigation strategies including supporting regulation	Capacity-building on participatory planning for synergizing adaptation and mitigation actions	Identified by Research and Development staff	IDR 15 billion (USD 1.25 million)	Seeking support	IDR 15 billion (USD 1.25 million)
Application of mitigation technologies	Capacity-building programme on Indonesian coffee farmers on low carbon farming empowerment	Identified by the Ministry of Agriculture	IDR 30.5 billion (USD 2.54 million)	Seeking support	Not communicated
	Peat water management: National Capacity-Building on Technology for Peatland Water Management Technology	Identified from TNA (2012)	Not communicated	Seeking support	Not communicated
Monitoring, Reporting, Verification (including mapping)	Capacity-building on agricultural carbon accounting at the district level	Identified by Research and Development staff	IDR 15 billion (USD 1.25 million)	Seeking support	IDR 15 billion (USD 1.25 million)



In 2010 Indonesia issued its National Action Plan For Reducing Greenhouse Gas Emissions (RAN-GRK) via the National Development Planning Agency (Bappenas). The RAN-GRK was codified as law via Presidential Regulation No. 61 of 2011. The RAN-GRK which provides the basis for various related Ministries/Institutions as well as sub-national governments to implement activities that will directly and indirectly reduce GHG emissions. The objectives of the RAN-GRK in respect to mitigation are as follows: (i) design programs and activities in order to reduce GHG emissions, particularly in forestry and peatland, agriculture, energy, industry and transportation, as well as waste sectors; and (ii) serve as a guidance document on investment relating to coordinated GHG emissions reductions at the national and regional levels. Core activities for GHG emissions reductions identified in the RAN-GRK include:

- Agriculture policies focus on the stabilization of the food security apparatus and the enhancement of agricultural products with low GHG emissions; and the enhancement of the national irrigation system, particularly its function and maintenance. Strategies targeted to achieve results include the optimization of land and water resources, the application of land management and agricultural farming technologies that are efficient in GHG emissions and can absorb CO<sub>2</sub>, and the stabilization of water levels in irrigation networks.
- Forestry and peatland policies include the reduction of GHG emissions while simultaneously promoting a safe environment, prevention of natural disasters, and increases in state and community revenues; management of peat land water systems; maintenance of peat land reclamation networks; and the enhancement of productivity and sustainable production of agriculture on peat lands.
- Energy and transportation policies include increased energy saving, the use of cleaner fuels (fuel switching), the enhancement of new and renewable forms of energy, utilization of clean technologies for power generation and the transportation of equipment, and the development of a low emission, sustainable and environmentally friendly national mass transport system.
- The industrial sector will focus on increasing industrial growth through more energy-efficient measures, with regular energy audits on energy-intensive industries planned, as well as the provision of energy efficiency programs at the national and regional levels.
- Waste management activities focus on the enhancement of institutional capacity and regional regulations at the sub-national level, and the enhancement of waste water management systems in urban areas. Government programs will also work to improve Final Treatment Facility (FTF) administration and the continued improvement, construction and rehabilitation of new and existing FTFs.

Following the issuance of the National Medium-Term Development Plan (RPJMN) by Bappenas covering the period 2015-19 and the merger of the ministries of Environment and Forestry under the administration of President Joko Widodo, it was deemed necessary by the Government to review the RAN-GRK. The RAN-GRK review process was carried out over the course of 2015 through a series of consultative workshops by Bappenas. More than 100 participants representing Government ministries, public institutions, academics and NGO/research institutions. The results of that consultation process contributed towards Indonesia's Intended Nationally Determined Contribution (INDC), which was submitted to the UNFCCC in September 2015 and outlines the country's transition to a low carbon future. The INDC re-affirmed Indonesia's commitment to reduce unconditionally 26% of its GHG emissions against the BAU scenario by 2020, in line with the 2010 RAN-GRK. The BAU scenario identified in the INDC is projected as approximately 2,881 GtCO<sub>2</sub>e in 2030.

For 2020 and beyond, the 2015 INDC envisions Indonesia achieving archipelagic climate resilience as a result of comprehensive adaptation and mitigation programs and disaster risk reduction strategies. Indonesia has set ambitious goals for sustainability related to

production and consumption of food, water, and energy. These goals will be achieved by supporting empowerment and capacity-building, improved provision of basic services in health and education, technological innovation, and sustainability resource management, in compliance with principles of good governance and broader constituency strengthening. As part of the INDC, the GOI also outlines its climate adaptation efforts which are considered essential for building resilience in safeguarding food, water and energy resources. The current administration of President Widodo has determined a number of priority actions within the Nawa Cita (Nine Priority Agendas) framework which outline priority actions for improved resilience for the climate change, economic, social and livelihoods, ecosystems and landscapes. Similar to the RAN-API, the INDC priority actions are planned for incorporation into the RPJMN.

While the focus of the national government has been primarily on mitigation, there have been some initial efforts on adaptation, the most significant of which is the 2012 National Action Plan on Climate Change Adaptation (RAN-API). The RAN-API, developed by Bappenas and other related ministries and agencies, identifies the country's main vulnerabilities to climate change, charts out short, medium and long-term actions to strengthen resilience and represents the GOI's first concrete effort to incorporate climate change adaptation into the national development planning process. The RAN-API is organized around five groupings of adaptive measures and identifies 15 priority sub-national units (provinces/districts/cities) to pilot implementation over the 2015-2019 period.<sup>9,10</sup> Under the leadership of Bappenas, the GOI has mainstreamed the RAN-API into the 2015-2019 National Medium-Term Development Plan (RPJMN).

The RAN-API includes an action plan for integrating priority sectors and cross-sectors into the RPJMN, as well as a policy direction for long-term adaptation. It also serves as a reference for local governments to mainstream climate change adaptation into regional development planning. Besides Bappenas, other key stakeholders include the BMKG, MOEF, MOHA, Central Bureau for Statistics (BPS), provincial governments, universities, NGOs and the private sector. JICA, UNDP, ADB, GIZ, USAID and the Ministry of Environment, Japan (MOEF) have supported various aspects of the RAN-API and its integration into the RPJMN. Table 5 below demonstrates the priority actions from the food and agriculture pillar of the RAN-API that are included in the RPJMN 2015-19.

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<sup>9</sup> The five groupings of adaptive measures are: (1) Economic resilience (food security, energy independence); (2) Living system resilience (health, housing, infrastructure); (3) Ecosystem resilience (water and biodiversity); (4) Specific region resilience (urban, coastal and small island); and (5) Support systems

<sup>10</sup> The pilot locations identified in the RAN-API are: Bali province, Semarang city, Pekalongan city, West Java province, Blitar city, Bandar Lampung city, East Java province, Malang district, Batu city, Malang city, West Nusa Tenggara province, Lombok island, Tarakan city, South Sumatra province, and North Sumatra province.

Table 5: National Action Plan for Climate Change Adaptation 2013-2025 (RAN-API). Priority Actions for the Food and Agricultural Sector

Action Plan	Scope	Priority Location	Institution Involved
Cluster 1: Adjustment of Food Production Systems to Climate Change and Variation	<ul style="list-style-type: none"> <li>Adaptation of food production systems to climate variations and change through the development of types of crops, planting patterns and cultivation technology that is more resilient to extreme climate variation occurrences</li> <li>Development of a climate information system, an integrated crop calendar information system and an early warning system, in terms of threats of droughts and floods as well as of organic disturbances that adversely affect crops, cattle, and fish</li> <li>Development of aquaculture production, fisheries as alternative sources of foods and better fisheries security</li> </ul>	33 provinces in Indonesia that are priority areas in line with the issue and focus of activities	Ministries of Agriculture, Marine Affairs and Fisheries, Public Works; Meteorological Climatology and Geophysics Agency; Disaster Management Agency
Cluster 2: Expansion of Food Agricultural Area	<ul style="list-style-type: none"> <li>Expansion of agricultural food areas by taking into account the probability of changes in climate risks, environmental support by not reducing the area's conservation functions</li> <li>Research and Development for better food production through a sustainable agricultural system</li> <li>Expansion of aquaculture in potential areas</li> </ul>	33 Provinces in Indonesia that are priority areas in line with the issue and focus of activities	Ministries of Agriculture, Marine Affairs and Fisheries
Cluster 3: Restoration and Development of Agricultural Infrastructure that is <i>Climate Proof</i>	<ul style="list-style-type: none"> <li>Developing a system that already takes into account climate change so that the system can function as expected under conditions when the climate has changed</li> <li>Development of water management technology which is adapted to climate change</li> <li>Rehabilitation and conservation of watersheds to increase water absorption in order to reduce drought threats</li> </ul>	33 Provinces in Indonesia that are priority areas in line with the issue and focus of activities	Ministries of Agriculture, Marine Affairs and Fisheries, Public Works

Cluster 4: Acceleration of Food Diversification	<ul style="list-style-type: none"> <li>• Accelerating food diversification through the development of various healthy food outputs from commodities that are more resilient to the impacts of climate change and that are water efficient, particularly local food outputs (sago, 'ganyong', roots, beans, and other local food outputs)</li> <li>• Promotion of Mixed Food Policy</li> </ul>	33 Provinces in Indonesia that are priority areas in line with the issue and focus of activities	Ministries of Agriculture, Marine Affairs and Fisheries
Cluster 5: Development of Innovative and Adaptive Technology	<ul style="list-style-type: none"> <li>• Development of more adaptive innovative technology against the threat of climate change</li> <li>• Development of varieties that are resistant to drought and floods, technology for managing cattle and fish</li> <li>• Assembling of superior seeds that are adaptive to the threat of climate change and plant diseases that bioprocess technology that is anticipative to climate change</li> <li>• Development of indigenous technology, including local wisdom</li> </ul>	33 Provinces in Indonesia that are priority areas in line with the issue and focus of activities	Ministries of Agriculture, Marine Affairs and Fisheries; Disaster Management Agency
Cluster 6: Development of Information and Communication Systems (Climate and Technology)	<ul style="list-style-type: none"> <li>• Development of climate information systems and communications</li> <li>• Development of capacity for analysis, prediction/estimation of climate/weather, developing networks of climate information systems, crop calendars, and networks and institutions for communication</li> </ul>	33 Provinces in Indonesia that are priority areas in line with the issue and focus of activities	Ministries of Agriculture, Marine Affairs and Fisheries, Public Works; Disaster Management Agency

While effective national-level coordination remains limited on climate change mitigation and adaptation issues, some efforts have begun. Bappenas has set up the Climate Change National Coordination Team (CCNCT), which includes six working groups, including one on Adaptation. The Director-General for Spatial Planning at the Ministry of Public Works chairs the Adaptation Working Group, which includes 20 members representing 12 relevant line ministries/agencies with adaptation activities planned in their department work plans. In addition, a Working Group on Support Systems and Cross-Sector Coordination has assumed the role of overseeing overall cross-sectoral and central-local government coordination.

Institutions at the sub-national (regional and district) levels require significant support in building capacity to improve climate change resilience. Local officials have significant authority and responsibility to influence resilience amongst local communities and the rural poor, though in many cases their capacity and resources are insufficient to realize those duties. Beyond government, strengthening the capacity of local universities, research institutions, NGOs and the private sector is an equally important aspect in order to foster a multi-stakeholder approach to localized emerging problems. Barriers to building local capacity are significant and include a lack of human resources, a lack of technical expertise amongst local government staff, and frequent rotations between sub-national government agencies. NGOs and universities are likewise often limited in financial and human resources, and they may lack opportunities to network with others around the country engaged on similar issues.

In January 2016, the GOI established the Peatland Restoration Agency (Badan Restorasi Gambut, or BRG), which is mandated to coordinate peatland management, protection and restoration efforts in response to Indonesia's long-running fires and haze crisis. BRG peatland restoration efforts are focused on four regions: namely Meranti Archipelago in Riau; Ogan Komering Ilir and Musi Banyuasi regencies in South Sumatra; and in Pulang Pisau regency in Central Kalimantan. Preliminary mapping activities of those four areas suggest that 77 percent of the targeted landscapes are in cultivation (APL) areas, while the other 23 percent are conservation areas, totalling 834,491 hectares of at risk peatland. Peatlands are identified according to four criteria: lands categorized by national ministry maps as peatlands; ground cover conditions; presence of water canals and the effects of recent drainage canal construction; and a five-year period of fire occurrence records. Restoration activities undertaken by the BRG will begin in mid-2016 and will target areas based on a priority ranking of variables including the land's legal status, topographical and hydrological conditions, local customs and sociocultural aspects (Tempo, 2016).

### III. Impact Identification, Evaluation, And Lessons Learned From IFAD And Donor Programmes

This section identifies a number of key lessons learned related to climate resilience and adaptation from past and ongoing IFAD programmes, previous COSOP implementation, and donor and development partner experiences. The lessons were derived from the 2013 Country Programme Evaluation (CPE) conducted by the IFAD Independent Office of Evaluation, a review of IFAD Indonesia project documentation (Midterm Reviews, Supervision Reports, etc.) and stakeholder consultations. It is hoped that the identification of these priority ENRM, social, and CC issues will help to deepen policy dialogue with the GOI, as well as identify links with other sector policies and strategies.

Improved Information and Communication Technology (ICT). The 2013 CPE recommended that IFAD operations should focus on improving the access of small farmers to agricultural technology and services, and help them to develop value chain links to input and output markets. The experience of two World Bank projects shows that

strong linkages between farmers, researchers and extension workers facilitate an effective dissemination and adoption of improved technologies. Farmers will adopt improved technologies faster if they participate in the field assessment and in the fine-tuning of the technologies through farmer-managed demonstrations, farmer research trials, field days, multi-media information campaigns, and other similar activities. (World Bank, 2013; World Bank, 2012). Improved ICT will be instrumental in providing information to smallholders on issues including weather fluctuations, prices, markets, extension, technology and innovations.

Improved private sector participation on ICT applications can help to link producers and their organisations with private players along the value chain and with relevant public services. The COSOP has rightfully identified the critical role that private companies can play by facilitating access to technology and advisory services. In this regard, ICT services for farmers needs to be rooted in private sector practices. Approaches that are led by government agencies run the risk of lacking a clear and systematic approach in how to include the private sector.

High usage of mobile technology amongst project beneficiaries to communicate information about climate and environmental conditions. The experience of the CCDP project has been of high usage of mobile applications to exchange information on climate and environmental issues, both between the PMO and project stakeholders, but also between stakeholders themselves. Mobile technology provides a pervasive and cost-effective method to communicate with and between project stakeholders. Previous IFAD projects have not performed satisfactorily in the promotion of innovative technological methods to communicate information on climate patterns, market prices, and agricultural input costs, amongst other issues. With better information, smallholders will be better equipped to climate shocks and changing market conditions.

Environment and climate-sensitive approaches are lacking in individual project designs. SOLID has focused on social mobilization and community infrastructure activities as per its project design, but has not prioritized climate change issues or allocated adequate tools and resources in order to improve community resilience. At the project design level, IFAD-financed projects should include 'multiple-benefit' approaches that build climate resilience and adaptive capacity while also increasing yields, enhancing biodiversity and lowering greenhouse gas emissions.

Sub-national governments face significant capacity challenges in implementing adaptation strategies. Implementation of national plans like the RAN-API is a challenge for sub-national governments, because adaptation activities need to involve different stakeholders at various levels. It is most effective when national government representatives can disseminate the overall national plans first and find ways to make it locally relevant. After that the roles of sub-national stakeholders can be identified. In building a consensus amongst stakeholders, sub-national authorities should consider building Multi-Stakeholder Forums (MSFs) that disseminate necessary information as well as help collect multi-disciplinary inputs. (IFACS, 2015)

Mainstreaming adaptation into sub-national development planning with the tagging process. The most effective and practical way to undertake adaptation planning and implement adaptation actions is to use existing procedures for development planning and budget allocation. The tagging process is conducted by BAPPENAS at the national level to grasp the implementation status of existing plans and strategies. Adaptation-related policies and programs have been identified and tagged through this process. This tagging process is not only useful for stocktaking, but also for monitoring and evaluating policies and actions. BAPPENAS also plans to conduct the scoring process to evaluate and prioritize adaptation policies and actions in the near future. Currently, indicators of disaster vulnerability and resilience are being developed to prioritize adaptation actions, and to monitor RAN-API implementation progress. (Ministry of Environment, Japan)

Water is a major climate resilience issue in all of the regions. Water issues limit both the resilience and adaptive capacity of communities while also offering an effective means of entry for engaging communities and local government concerning resilience and adaptation. The experience of donor-driven projects highlights water-related issues as a primary concern for rural communities, specifically issues such as access to clean water, flooding, landslides, riverbank erosion, drought decayed and damaged irrigation systems and lack of or damaged drainage systems. (IFACS, 2015)

The design of peat land management projects should ensure multi-stakeholder collaboration from project inception and that community benefits are clear and tangible. The IFAD ASEAN Peatland Forests Project (APFP) was executed between 2009 and 2014 and yielded a number of important lessons on peatland management. These included the insight that integrated peatland management projects are complex undertakings and require coordination amongst a high number of different stakeholders. As such a comprehensive framework for cooperation and coordination among those stakeholders is essential in order to achieve the project's stated objectives. Multi-stakeholder consultations should be adopted from the project's inception in order to ensure buy-in from all stakeholders to work within that agreed-upon cooperation framework. During the design of the planned Sustainable Management of Peatland Ecosystems in Indonesia (SMPEI) project, to be implemented by the Center for International Forestry Research (CIFOR), IFAD confirmed the importance of communities receiving appropriate social and economic benefits for the sustainable management of peatlands. As such, it is important to develop peat-friendly sustainable livelihoods and incentive mechanisms that facilitate the sharing of benefits from improved peatland management.

## Recommendations to Enhance Environmental and Climate Change Resilience in the Agriculture and Rural Development Sector

This section is designed to help identify priority ENRM, social and CC issues based on IFAD's comparative advantage for deepening its policy dialogue with the GOI as well as lay the basis for possible interventions to be included either in the COSOP or to be financed by external funding sources such as the Adaptation for Smallholder Agriculture Programme (ASAP) and/or the Global Environmental Facility.

### A. Analysis of the Strategic Orientation of the Proposed COSOP

The new COSOP is oriented around three strategic objectives:

- facilitating the access of small scale producers to inclusive and gender-sensitive support services, new and affordable technologies and remunerative markets;
- building the resilience of small producers to climatic and economic shocks and optimizing their risk mitigation strategies, so that improved livelihoods can be sustained; and
- improving the capacities of public institutions to deliver services and goods in support of inclusive rural growth.

Strategic objective 1 will create inclusive models for securing small scale producers' and entrepreneurs' access to services and markets. Interventions will focus on inclusive business-oriented producers' organisation, inclusive public-private partnerships, and inclusive financial services for small producers. Environmental and climate risks for this strategic objective are moderate and can be mitigated by the development of environmental screening criteria, as well as criteria regulating the use of pesticides and other potential water and soil contaminants. Activities conducted by producers' organisations and in conjunction with private sector enterprises should be monitored and best management practices should be widely disseminated. Recommendations to enhance environmental and climate resilience include:

- Improve small scale producers and entrepreneurs' access to agricultural technology and services. In order to help small farmers raise productivity and better adapt to climate change, IFAD activities under this strategic objective can focus on improving farmers' access to agricultural technology and services, and help farmers to develop value chain links to input and output markets. This might include innovative technological methods to communicate information on climate patterns, market prices, and agricultural input costs, amongst other issues. This recommendation draws on the lessons learned dealing with the need for improved ICT. They also feature prominently in the RAN-API ("Food Security, Cluster 6: Development of Information and Communications Systems") as a priority sector for the GOI and donor partners to target. The 2015 BUR also identifies improved technology needs in the Agriculture, Forest and Other Land Use (AFOLU) sector as a potential entry point for donor support.
- Provide extension support to farmer associations and SME on new farming systems and technologies to improve traditional value chains (i.e. the processing of perishable products to overcome annual environmental constraints and increase the possibility to stock and access to markets in a longer period/new markets) and new complementary value chains (NTFPs cropping, processing and marketing). This links to the lesson learned identified in the section above, regarding the need for increased private sector participation in government schemes to build the capacity of farmers groups and associations. This recommendation also features in national government planning documents like the RAN-API, which has identified the importance of 'Innovative and Adaptive Technologies', including superior and new



varieties of seeds that are resistant to disease, drought, and floods, amongst other stressors.

- Best Management Practices (BMPs) should be more widely promoted by IFAD in individual project design. These might include individual practices such as cattle manure handling, avoiding location of cattle pens adjacent to water sources, the proper use and handling of chemical containers, used syringe disposal, the use of fertilizers/pesticides, housekeeping and occupational and health safety aspects. This was an important lessons learned from prior IFAD projects like SOLID, as well as the experience of other donor projects. If community-based actions are not designed in a sustainable manner, they may end up having adverse impacts on the local environment. The opportunity to improve communities' livelihoods targets the very same agricultural commodities that are historically the drivers of deforestation.

Strategic objective 2 will create inclusive models for building the resilience of small scale producers and will have clear positive externalities for environmental, social and climate change resilience. The objective is designed to improve vulnerability to unexpected shocks to local communities, including climate variability and environmental change. Interventions will focus on adaptation to environmental change and climate variability, risk management tools, protection of long-term land ownership, and maximizing the impact of internal and international migration remittances. Strategic objective 2 will support improved models for climate resilience and to increase the adoption of improved practices and risk management tools amongst the rural poor. Recommendations to enhance environmental and climate resilience:

- Promote the expanded use of 'multiple-benefit' approaches that build climate resilience and adaptive capacity. Those multiple benefit approaches from strategic objective 2 will help project beneficiaries to build their climate resilience and adaptive capacity while also increasing yields, enhancing biodiversity and lowering greenhouse gas emissions. Tools like conservation agriculture, improved seed and crop varieties, and sustainable rehabilitation of degraded land would address the lesson learned in the previous section that environment and climate-sensitive approaches are lacking in individual project designs. These approaches are identified by the forthcoming COSOP as requiring further integration into ongoing and planned projects. CCDP's experience in community-based resource management and small producers will serve as a useful basis for climate adaptation strategies.
- The COSOP promotes the increased use of Farmer Field Schools (FFS), recognizing that FFS have proven effective in increasing productivity and quality amongst farmers. FFS can also be a delivery mechanisms to reach out to farmers directly and educate them about their vulnerability to climate change impacts. IFAD projects will be able to work directly with project beneficiaries to assess how and to what degree climate change is disturbing a community's local ecology. The assessments can then help communities to set mitigation targets, allocate appropriate resources, design adaptation strategies at the village level, monitor adaptation policies, and generally raise community awareness about climate change.
- Expanded use of climate risk management tools. The COSOP promotes a number of risk management tools to offset risks associated to lending to smallholders, but does not make mention of climate risk management applications. Farmers in Indonesia may be reluctant to invest in new and more profitable technologies because of highly variable climates, outlined above in sections 2.2 and 2.3. In the design of its projects, IFAD can consider the utility of climate risk-oriented index insurance schemes, which are designed to protect farmers and help to strengthen their abilities to manage climate risk and adapt to anticipated climate change (CGIAR, 2015).

Strategic objective 3 will improve the capabilities of public institutions to deliver services in support to rural inclusive growth. Interventions will focus on building local institutions' capacities, improved access to knowledge and expertise, and ramped up policy dialogue and partnerships. Recommendations to enhance environmental and climate resilience throughout this objective include:

- Build support on data collection using existing databases and bridge knowledge gaps between national and sub-national government partners. Sub-national governments require technical support on scientific data collection and information dissemination activities, including weather forecasting services. IFAD projects like CCDP and SOLID can work towards enhancing the capacity of public institutions to gather adaptation-related information. This is a priority area identified in the RAN-API (“development of innovative and adaptive technologies for climate change adaptation”) and ties in to strategic objective three’s proposals to improve access to knowledge and expertise amongst local government partners. The M&E, Knowledge Management, and communications strategies that strategic objective three proposes should be sure to include technical assistance on adaptation strategies and best practices.

## B. Proposed SECAP Strategic Actions

There remain opportunities to improve the performance of IFAD’s country programme in the areas of environmental, social, and climate concerns under the new COSOP. The 2014 Country Partnership Evaluation (CPE) for Indonesia identified that IFAD should keep in mind a number of principles when developing and implementing smallholder agriculture programmes in the country. Included were calls to focus on high-impact interventions, particularly those that scale up sustainable interventions and emerging technological advances; build up strong partnerships with government institutions, particularly the Ministry of Agriculture; address emerging critical national priorities; form strategic partnerships with international and national development partners; and use a strategic mix of instruments and leverage the use of grants such as the ASAP and GEF.

The SECAP recommends that Strategic Objective 2 can be strengthened into a larger landscape management approach that allows IFAD to better incorporate the various lessons learned outlined above, and also to address GOI requests for financing, technical, and capacity-building existence for improved CCA and DRM activities. Tables 1, 2, and 3 above identify several new types of support that the GOI is seeking in the agriculture sector, with many of the actions there consistent with the principles and objectives of the COSOP and the SECAP study.

The SECAP recommends that the COSOP consider the following be considered as strategic actions:

- Promote the expanded use of community-based climate change adaptation plans and vulnerability assessments. Rural communities across Indonesia are vulnerable to the harmful effects of climate variability and change. IFAD activities under this strategic objective should consider the use of individual community Climate Change Adaptation Plans and Climate Change Vulnerability Assessments. There are a number of other donor programmes focusing on vulnerability and resilience with various government partners. A full list is contained in Appendix 1 of this document. Important projects include the USAID ‘Adaptasi Perubahan Iklim dan Ketangguhan’ (APIK) project, which begins in 2016 and will work with public and private sector partners in Indonesia to systematically integrate CCA and DRR into investments and planning processes. The USAID Indonesia Climate Adaptation and Disaster Resilience (CADRE) project that works to strengthen community resilience to prepare for and recover from the effects of disasters and climate change and improve the capacity of civil society organisations, the government, and private sector to implement DRR and CCA initiatives. It would be useful for IFAD – in the design of its own COSOP – to coordinate with these and other donor projects in order to leverage existing donor commitments in the DRR and CCA space.
- If the investments under this COSOP are implemented in areas home to indigenous peoples, it is recommended that the COSOP takes into account indigenous peoples.

Proposed activities should be in line with the IFAD Policy on Engagement with Indigenous Peoples and the APR Action Plan, which was agreed upon during the global meeting of the Indigenous Peoples Forum at IFAD in February 2015. That Action Plan called for the COSOP to consult with indigenous peoples in order that they provide their inputs and contributions for the design of the COSOP and its planned activities.

- Promote new innovation for alternative livelihoods strategies on areas at high-risk occupied by local communities. Responsible management practices can help to maintain peatland ecosystem services while sustaining and improving local livelihoods. Conserving and rehabilitating peatlands does not mean that these areas should become off-limits to economic activity. Several options for sustainable use of wet peatlands exist, and local communities have made use of such opportunities for centuries. In addition, peatlands can be cultivated with crops adapted to the wet soil conditions – a practice known as paludiculture. So far no true paludicultures have been established in Southeast Asia. However, during the past ten years numerous reforestation trials on degraded peatlands have been developed. These trials also use trees that provide valuable non-timber forest products (NTFP). Organisations like Wetlands International advocate the (gradual) removal of drainage based plantations from peat and replacement with sustainable alternatives including the cultivation of indigenous commercially valuable species that do not require drainage such as Illipe Nut, Jelutung, Melaleuca, rattans and Sagu (paludiculture). This can be combined with other non-peat based economic activities (e.g. chicken/duck/goat/vegetable/fish farming) as well as REDD+ initiatives in support of climate-smart land-use and equitable development resulting in sustainable landscapes.
- Build the capacity of local government institutions to conduct Strategic Environmental Assessments (SEAs). SEAs are a key part of the spatial planning process in Indonesia and are a requirement of Law No. 32 / 2009 on Environmental Protection and Management. Law No. 32 calls for regional governments to design SEAs that can act as a systematic, comprehensive and participative analytical framework to ensure that principles of sustainable development are ensured and integrated into jurisdictional development policies, plans, and/or programs. Many district governments in Indonesia lack the skills and resources to complete a high-quality SEA. IFAD should consider, as part of its activities under strategic objective 2, to provide technical support to partner district governments in order to develop analytically rigorous SEAs that can help to clarify development priorities and ensure that those priorities are achieved in an environmentally sustainable manner. Transparent and rigorous SEA processes can help to secure local ownership over the development and planning process and help local stakeholders to understand how development plans will affect communities, the environment, health and the economy.
- Engage the national Peatland Restoration Agency (BRG) as a new government partner agency. In January the GOI established the Peatland Restoration Agency (Badan Restorasi Gambut, or BRG), which is mandated to coordinate peatland management, protection and restoration efforts in response to Indonesia's long-running fires and haze crisis. BRG peatland restoration efforts are focused on four regions: namely Meranti Archipelago in Riau; Ogan Komering Ilir and Musi Banyuasi regencies in South Sumatra; and in Pulang Pisau regency in Central Kalimantan. Preliminary mapping activities of those four areas suggest that 77 percent of the targeted landscapes are in cultivation (APL) areas, while the other 23 percent are conservation areas, totalling 834,491 hectares of at-risk peatland. Peatlands are identified according to four criteria: lands categorized by national ministry maps as peatlands; ground cover conditions; presence of water canals and the effects of recent drainage canal construction; and a five-year period of fire occurrence records. Restoration activities undertaken by the BRG will begin in mid-2016 and will target areas based

on a priority ranking of variables including the land's legal status, topographical and hydrological conditions, local customs and sociocultural aspects.

- Engage the Ministry of Agriculture on new avenues of technical, financing, and capacity-building support. Contained in the 2015 BUR are several projects that the Ministry of Agriculture is seeking support for, namely the rehabilitation of degraded lands in Other Land-Use Areas (APL); determining peat fire area and peat fire depth; and capacity-building on participatory planning for synergizing adaptation and mitigation actions. Those activities are consistent with the objectives and principles of the SECAP and COSOP and should be considered.

### C. Proposals for monitoring and feedback mechanism

Monitoring the implementation of the recommendations of this SECAP study will require the identification of appropriate indicators for that purpose. The following table proposes a set of indicators for the expected outputs from the SECAP's recommended actions/measures, as well as for strategic objective 2 of the COSOP, which deals most directly with environmental and climate change issues.

Recommendation	Expected Output	Indicator
<u>SECAP study recommended strategic objective:</u> Create inclusive models for building the resilience of small scale producers and will have clear positive externalities for environmental, social and climate change resilience	COSOP strategic objectives promote positive environmental and social benefits for local communities and project beneficiaries	Inclusion in COSOP and further strengthening
<u>Priority strategic actions:</u> <i>Promote the expanded use of community-based climate change adaptation plans and vulnerability assessments.</i>	COSOP promotes the use of climate change adaptation plans and vulnerability assessments	Number of plans and assessments developed by local project beneficiaries
<u>Priority strategic actions:</u> <i>Promote new innovation for alternative livelihoods strategies on areas at high-risk occupied by local communities</i>	COSOP promotes strategies including paludiculture when engaging with local project beneficiaries	Number of paludiculture projects developed under the COSOP or financed by external financing
<u>Priority strategic actions:</u> <i>Build the capacity of local government institutions to conduct Strategic Environmental Assessments (SEAs).</i>	COSOP promotes localized SEAs for village, district, and provincial government partners, in view of capturing data about climate resilience and preparing communities for potential future climate variability	Number of SEAs developed by jurisdictional governments
<u>Priority strategic actions:</u> <i>Engage the national Peatland Restoration Agency (BRG) as a new government partner agency</i>	Via the COSOP, IFAD engages with BRG as the coordinating agency for peatlands restoration and management	Inclusion of BRG as a project partner in ongoing and planned peatland management projects; number of interventions that focus on improved

		peatland management in conjunction with local project beneficiaries
<u>Priority strategic actions:</u> <i>Engage the Ministry of Agriculture on new avenues of technical, financing, and capacity-building support</i>	Additional COSOP activities financed from supplemental sources (ASAP, GEF, GCF)	Number of projects/activities receiving supplemental financing

## Annex 1: Proposal for Activity to Access GEF, ASAP and Other Sources of Funds

### Background

Drawing on the experiences from the Integrated Management of Peatland Landscapes in Indonesia (IMPLI) project, further initiatives are needed to scale up sustainable and integrated peatland management schemes to other Indonesian locations, and IFAD is well positioned to support local Indonesian partners to move towards a participatory community management scheme of peatlands resources. Further focus can be provided to the implementation of national regulations at the sub-national/provincial levels, and to target national budget allocations for peatland management via climate change budget 'tagging' systems used by the National Development Planning Agency (Bappenas) and described in the Indonesia Social, Environmental, and Climate Assessment Procedure (SECAP) review.

#### A. Strategic context and rationale for IFAD involvement, commitment and partnership

The majority of peatland forests in Indonesia have been logged for their valuable timber, land cleared and drained for agriculture, plantations and other developments. Key drivers include increasing global demand of palm oil and pulp and paper; increasing population in peatland regions including transmigrant resettlement; lack of recognition of value of peatland ecosystems and poor institutional capacity on peatland management. Peatlands in the country have unsustainably used in the past with less than 20% in relatively pristine form. Large areas have been severely degraded leading to high GHG emissions and loss of biodiversity. These excessive land conversion, land and forest burning, as well as, over exploitation of timber and other non-timber forest products have turned 13 million hectares of peatlands to highly degraded landscapes prone to fire and subsidence. Lack of knowledge, awareness and technical expertise in terms of ecosystem characteristics and ecological principles as well as lack of stakeholders' participation has contributed to degradation of peatlands in Indonesia.

IFAD is well positioned to support the Government of Indonesia to access additional funding to support projects that help to alleviate the further degradation of peatlands in Indonesia that lead to disrupted hydrology, loss of biodiversity, and annual fires and associated large scale GHG emissions. Targeted interventions from integrated peatland management projects will significantly enhance multi-stakeholder partnership approaches linking the national, provincial and local governments from different sectors, communities and private sector to develop and manage peatlands in a sustainable integrated manner.

In business-as-usual (BAU) scenarios, government efforts related to peatland fires will likely continue to focus mainly on fire suppression and control rather than fire prevention – in other words the symptoms rather than the causes. Enforcement will continue to be ineffective in preventing fires and government expenditure on fire-fighting will continue to be allocated too late to prevent large-scale fires and degradation.

#### B. Possible geographic area of intervention and target groups

Scaling-up efforts of the IMPLI project at the national level will require substantial resources and highly coordinated actions because the sheer size of peatlands in Indonesia is massive – ex. peatland hydrological units cover approximately 25 million ha. This is why it is critical to design project activities in partnership with government agencies, private sector and other donors (eg EU/Germany). The project is part of an important sequence of progressive development and scaling up of efforts which started with the strategy development and demonstrations by the GEF-4 APFP which contributed to development of the national regulations on peatlands. The GEF 5 project will help refine the regulation and sub regulation and support initial assessment and mapping of peatland

ecosystems and build capacities of relevant institutions to develop sub-regulations and methodologies. The IMPLI project will apply the strategies and methodologies defined through the GEF-5 project in at least 5 provinces (beyond Riau) and support implementation of sub-regulations in northern Riau and develop a mid- and long-term investment framework to secure sufficient national budget for long term sustainable peatland management. GEF-supported institutional capacity-building, legislation, methodologies (at national level) and best practices in Riau will provide a foundation for co-financed activities to successfully expand the current efforts to other provinces and elsewhere in the ASEAN region through the mechanism of APSMPE.

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C. Justification and rationale (including reference to lessons learned from previous interventions)

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An integrated and participatory approach is necessary in order to address the major threats to Indonesia's peatland ecosystems. GEF financing will enable the testing of new participatory approaches to sustainable peatland management and for scaling-up proven methodologies tested under the IFAD/GEF ASEAN Peatland Forests Project (APFP). A major focus will be to scale up implementation of Indonesian National Peatland Regulations (PP71/2014) to reduce peatland degradation and GHG emissions; enhance integrated management and biodiversity conservation and community livelihood in the Giam Siak Kecil Peatland Landscape in Riau Province; and benefit from, and contribute to local, national and regional knowledge exchange and dialogue. The introduction of the peatland hydrological unit (PHU) as the key unit for planning and management is critical to ensure the long-term sustainability of the peatlands, since maintaining the integrity of the PHU is essential to prevent fire and minimize drying and degradation.

The project will effectively build on to earlier GEF investments in peatland management. The GEF-4 supported ASEAN Peatland Forests Project (APFP) was a regional project implemented between 2010-2014 through the ASEAN Secretariat and executed in Indonesia through the Ministry of the Environment. This project helped with the updating and dissemination of the National Strategy on Peatlands and promoting it at national and provincial levels and development of masterplans for peatland management in Riau and West Kalimantan. It also contributed to development of the Regulation on Protection and Management of Peatland Ecosystems (PP71/2014) which was adopted in September 2014. In terms of action at the field level, the project undertook a broad range of pilot and demonstration activities in three separate provinces – namely Riau, West Kalimantan and Central Kalimantan Province. The results of the project demonstrated that:

- a. the involvement of local community and private sector was critical for advancing sustainable management of peat and reducing the extent of peatland fires.
- b. Improving water management and blocking of abandoned drains is key at local level to prevent fires and peatland degradation
- c. In order to be successful it was necessary to concentrate actions across a peatland landscape rather than fragmenting efforts across many different sites and provinces. This landscape-based approach is the key element of the new PP71 regulations which require water and land management to be integrated using a landscape approach.
- d. It is also critical to have cross-sectoral engagement of government agencies from different sectors (eg agriculture, forestry, environment, water resources etc) as well as different levels (national, provincial and district).

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D. Key Project Objectives

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- Implementation of the National Regulation on Protection and Management of Peatland Ecosystems
- Integrated management of selected peatlands landscapes in partnership with government, private sector and local communities
- Improved knowledge management and exchange for joint exchange on sustainable peatlands management

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#### E. Ownership, Harmonization and Alignment

Indonesia's second national communication to UNFCCC (Jan 2011) considered peat and LULUCF sector as main contributors of GHG emissions, and recognized peatland management an important area of work for the GHG emission reduction and list relevant legal instrument designed to control peatland fire. Since then, more strengthened regulations including PP71/2014 and moratorium on issuance of new permits for peatland conversion have been announced. Meanwhile, Indonesia's Technology Needs Assessment (TNA) for Climate Change Mitigation 2012 clearly mentions of the importance of peat as a source of carbon emissions. For the forestry and peat sector, the following three priority technologies are identified: (1) carbon measurement and monitoring; (2) peat re-mapping; and (3) peat water management. The barriers in the Technology transfer and diffusion (TTD) process for the peatland sector were identified as (1) lack of a reference project of viable, credible and reliable integrated forest-peat carbon measurement while mitigation requires a complete and updated unified peatland mapping system; (2) a lack of data and spatial information for low carbon peatland management; (3) lack of reference data to impede the effectiveness of water management for low carbon peatland management. The TNA report calls for establishment of a national demonstrator project to develop the above-mentioned three priority technologies and of a collaborative learning program for technology diffusion. The project will support the implementation of the National Action Plan on GHG Emission Reductions and contribute to the targeted reduction of 41% of GHG emissions through reduction of peat fire and integrated water management by 2020 compared to a business as usual (BAU) strategy.

The project is in line with the National Strategy and Action Plan on Peatlands as well as other national plans related to Indonesia's National Action Plan for UNCCD was developed in 2002 when the understanding of peatlands was less widespread. However policies on forest fire and zero burning land clearance, and their relevant sub-measures, including soil erosion mapping, identification and classification of degraded land and rehabilitation of degraded lands and forests provide early guidelines to development of the current peatland policies and in line with the sustainable land management approach of the peatland management the Convention on Biological Diversity such as the Indonesia Biodiversity Strategy and Action Plan (IBSAP 2003-2020) and the National Wetland Strategy. The IBSAP, which was written in 2004, identified peatlands as one type of the wetlands ecosystem and described the importance of wetlands in Indonesia for a high level of biodiversity, regulation of water and nutrients cycles and various recreational and tourism benefits. As specified in Indonesia's 5<sup>th</sup> National Report to CBD (2014), Indonesia highlights the importance to control GHG emission from peatland degradation to minimize global warming impact through enhanced ecosystem resilience and contribution of biodiversity to carbon stocks which is developed as one of the main objectives of the project.

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#### F. Components and activities

1. Scaling up implementation of national regulations on protection and management of peatland ecosystems (PP71/2014). Enhanced capacity, resources and multi-stakeholder partnerships at national level to implement PP71 with approved strategies to accelerate adoption of low emission peatland management practices in at least one province and enhanced cross-sectoral support and financing for PP71 implementation
2. Integrated management of selected peatland landscapes in partnership with private sector and local communities. Strengthen capacity of local government and communities to work together with private sector to generate income from sustainable management implementing the management plan.
3. Scaling up best practices through knowledge management and market options. Best practices for peatland management adopted by key stakeholders in Indonesia; reduction in peatland fires and haze in targeted areas; and improved markets for products linked to sustainable use of peatlands



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#### G. Preliminary Environmental and Social category

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The project objectives and outcomes sought are all aimed at positive influences on environmental and social settings. It should be noted that the unit of operation under the project is the hydrological unit, which includes the peat dome, and as such, is adopting a landscape approach for integrated peatland management. Considering that all of the project activities are designed to improve environmental and social outcomes a category B rating has been assigned. Under the SECAP guidelines a B category rating warrants further environmental analysis and consideration during the implementation stages of the project as necessary.

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#### H. Risks

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- Weak enforcement of policies and regulations related to peatlands management
- Lack of political will or poor governance
- Potentially slow implementation of multi-stakeholder integrated management strategies and mitigation measures
- Climate change risk including intensification of the periodic El Nino drought is anticipated to occur at some time during implementation of the project and could affect some aspects of project achievement

## Annex 2: Table on existing ENRM and CC stakeholders and initiatives

Organization	Description of Portfolio
JICA	The Capacity Development for Climate Change Strategies in Indonesia project supports development and implementation support to the RAN- API and the operation of RAN-API Secretariat; 2) Adaptation pilot activities spatial planning and agriculture in North Sumatra, Wakatobi, and Bali; 3) Mainstreaming adaptation to development planning through establishment and operation of Advisory Committee on Adaptation and development of strategy document at national and local level with BAPPENAS and Public Works; 4) Training particularly on climate seasonal forecasting and climate change projection for BMKG staff, and on general climate change issue for government officials from Bappenas, BMKG, Ministry of Environment, Ministry of Public Works, Bappeda of North Sumatra and Bappeda of South Sumatra; 5) trials with agricultural insurance and irrigation and other adaptation measures with small scale farmers, mostly in East Java.
ADB	Provided support through the following ongoing projects: 1) RAN-API piloting in 2 focus areas; 2) climate change mitigation and adaptation in the Citarum river basin in West Java; 3) Climate change adaptation in coastal ecosystems and marine protected areas (COREMAP) through sustainable marine and coastal livelihood resilience, coral reef ecosystem based management activities in 10 MPAs; 4) Technical Assistance on climate change adaptation and mitigation in forest ecosystems through sustainable forest management and REDD+ interventions called Forest Investment Program (FIP).
World Bank	The World Bank has supported mainstreaming DRR and CCA in the current medium-term development plan and several ongoing infrastructure and community empowerment projects. Furthering the National Urban Development Policy and Strategy community, district, and provincial scales in Maluku, North Maluku and West with several technical assistance and advisory support provided, including in building urban resilience, through the UNDP Technical Support Facility. This facility would enable access to leading technical assistance and advisory support in urban management. A practical framework for building urban resilience in the East Asia and Pacific region has also been developed. The Project has strong potential contribution to the collaborative framework, especially in the context of urban resilience. The World Bank existing engagement in InaSAFE risk analysis tool and collaborative mapping could be replicated in selected cities targeted by the Project to leverage local resilient investment analysis and planning. 26.
GIZ	The Policy Advice for Environment and Climate Change (PAKLIM) project supports 15 cities in Central and East Java in developing a Climate Change Integrated Strategy, capacity-building on proposal writing, negotiation with funding agency, and hosting a “development market place for CSR” and network meeting and knowledge-sharing. German ASEAN Program for Climate Change, a capacity-building for CCA in agriculture and forestry sector in ASEAN countries, is conducting a study on the climate resilience of food crops in Indonesia, including maize, rice and cassava. The DATA CLIM project with BMKG, which was recently completed, recovered historical climate data from as far back as the 1970's and is developing this climate info into downscaled climate models and sharing on a service website that the public can access from 170 stations.
USAID	The Adaptasi Perubahan Iklim dan Ketangguhan (APIK) project (beginning 2016) will work to improve the ability of Indonesians to manage climate and disaster risk. Indonesia is highly vulnerable to both climate change and a wide range of weather-related natural disasters. Given Indonesia's economic growth and settlement patterns, disaster-related economic losses and loss of life will likely have an even larger negative impact on human development in the future, particularly for the poorest and most vulnerable. Therefore, a transformation is needed in the way climate and disaster risks are presently addressed; namely, both the public and private sectors in Indonesia must move to systematically integrate climate change adaptation (CCA) and disaster risk reduction (DRR) into their investments and planning processes.  The Stakeholder Coordination, Advocacy, Linkages and Engagement for Resilience (SCALE-R) project fosters linkages among government, civil society, and private sector stakeholders for more coordinated and inclusive planning; increased awareness of the risks associated with disasters and climate change; and reduced vulnerabilities in select areas through pilot projects.  ADAPT Asia-Pacific is aimed at helping nations in Asia and the Pacific obtain financing for

	<p>actions to address climate change. The program is also designed to share information and best practices about climate fund requirements and help governments build capacity to access the existing pool of international and domestic climate change adaptation funds. In Indonesia, ADAPT Asia-Pacific has provided support to the Indonesia Climate Change Trust Fund (ICCTF) in improving its project selection mechanism, M&amp;E framework for CCA projects, and fundraising strategy.</p> <p>3. The Institutionalizing Disaster Preparedness and Management Capacity of BPBDs in Indonesia through Technical Assistance and Training Teams (TATTs) embeds qualified teams of trainers within the provincial BPBDs to provide ongoing, day-to-day technical support tailored to the needs of each province, as well as to implement a series of training modules coordinated and standardized with the National Disaster Management Agency (BNPb).</p> <p>The Indonesia Marine and Climate Support (IMACS) was a 4 year project (2010-2014) to support the Indonesian Ministry of Marine Affairs and Fisheries (MMAF) to achieve sustainability in the marine and fisheries sector, to protect biodiversity, and to improve the response of coastal communities to near-term disasters and long-term impacts related to climate change.</p> <p>The Indonesia Climate Adaptation and Disaster Resilience (CADRE) project works to strengthen community resilience to prepare for and recover from the effects of disasters and climate change and improve the capacity of civil society organizations, the government, and private sector to implement DRR and CCA initiatives.</p>
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## Annex 3: List of Stakeholder Consultations

Full Name	Position	Institution
Government		
Dewo Broto Joko	Deputy for Development Financing	National Development Planning Agency
Sapta Putra Ginting	Executive Secretary PMO CCDP IFAD	Ministry of Marine Affairs and Fisheries
Teguh Djokosaksono	Financial Management	Ministry of Marine Affairs and Fisheries
Agung Tri Prasetyo	Deputy Director of Bilateral Cooperation, Centre for International Cooperation	Ministry of Marine Affairs and Fisheries
Muchamad Zacky	National Coordinator, Smallholder Livelihood Development Project	Ministry of Agriculture
Brama Dita	SOLID Project Planning	Ministry of Agriculture
Etty Herawati	Head, DKI Jakarta Assessment Institute of Agricultural Technology	Ministry of Agriculture
Waryat	Researcher, DKI Jakarta Assessment Institute of Agricultural Technology	Ministry of Agriculture
Bambang Supriyanto	Director, Environment Services of Conservation Areas in Protected Forests	Ministry of Environment and Forestry
Untung Suprpto	Deputy Director for Prevention and Fire Control	Ministry of Environment and Forestry
Oloan Simatupang	Head of the Sub-Directorate of Technical Planning, Directorate of Drinking Water Development, Directorate-General of Human Settlements	Ministry of Public Works
Donors and Development Partners		
Mariam Rikhana	Rural Development Specialist	World Bank
P.P. Wardani	Senior Project Officer (Agriculture, Rural Development and Natural Resources)	Asian Development Bank
Arif Budiman	SPOI Environment Manager, Sustainable Palm Oil Initiative Project	UNDP
Rauf Prasodjo	Project Manager, Indonesia Palm Oil Platform	UNDP
Johan Kieft	Head of the Green Economy Unit	UNORCID
Roshan Cooke	Regional Environment and Climate Specialist	IFAD
Ron Hartman	Country Programme Manager	IFAD
Sarah Hessel	Programme Officer	IFAD
Anissa Lucky Pratiwi	Country Programme Facilitator	IFAD
Sunae Kim	Environment and Climate Change Portfolio Officer	IFAD
NGOs, research institutions and private sector		
Abetnego Tarigan	National Executive Director	WALHI

Fitrian Ardiansyah	Executive Director, Indonesia	IDH
I Wayan Veda Santiadji	Coral Triangle Support Programme Leader	WWF Indonesia
Brian Kraft	Associate	Asia Group Advisors
Thomas Harvey	Program Manager, INCAS Support	CIFOR
Purbasari Sujadi	Monitoring and Evaluation Director	Sustainable Fisheries Partnership
Prateek Gupta	Country Director	Helen Keller International
John Pontius	Advisor	Farmer Initiatives for Ecological Livelihoods and Democracy (FIELD)
Heru Setyoko	Executive Secretary	FIELD
Rizaldi Boer	Director, Centre for Climate Risk and Opportunity Management in Southeast Asia and Pacific	Bogor Agricultural University (IPB)
Nina Yulianti	Lecturer	University of Palangkaraya
Wahyu Mulyana	Executive Director	Urban and Regional Development Institute (URDI)
Irvan Kolonas	Chief Executive Officer	PT Vasham Kosa Sejahtera
Sanuk Tandon	Chief Operating Officer	PT Vasham Kosa Sejahtera

## Annex 4: SECAP Assessment Terms of Reference

On the basis of (i) data obtained from IFAD reports and development partners; and (ii) field visits and meetings with relevant stakeholders in the country, considering the "Updated Guidelines and Source Book for Preparation and Implementation of a COSOP", the consultant(s) will perform the following key tasks:

- i. Analyse the social, environmental, and climate and economic trends/problems in the country (particularly in the agriculture, water and biodiversity domains) priorities and themes linked with growth and rural poverty reduction. Provide information on the spatial (using relevant maps) and temporal scope of the SECAP assessment taking into consideration short/medium/long- term effects and risks. Also analyse how climate change exacerbates existing environmental and development challenges in the country;
- ii. Develop relevant environmental, economic and social objectives that should be considered in the country programme; evaluate the response at national level and potential areas of IFAD intervention; evaluate how both the proposed development objective and proposed actions of IFAD's proposed country strategy (if already identified) relate to these objectives and suggest modification or proposals for IFAD support;
- iii. Analyse individual and cumulative environmental (and social/economic) impacts of the proposed IFAD interventions in (the country) and suggest any relevant modifications for consideration by the COSOP design team. Where the proposed IFAD interventions are not yet identified, make recommendations for integrating environmental and social/economic considerations into the COSOP design;
- iv. Analyse adequacy of existing policy and institutional frameworks (Government, key donors, civil society), implementation arrangements and monitoring plan (whether they provide for realistic monitoring and analysis of key environmental, social, economic and climate impacts during implementation of the COSOP timeframe) and suggest options for improvement, as necessary. Depending upon the context of preparation, this can focus on analysis of environmental implications of sector policies, take into account the policy and regulatory framework, analysis of the institutional and governance issues linked with a particular theme or priority, and/or economic analysis to weigh and prioritize different interventions in a sector (for instance through use of cost-benefit analysis);
- v. Develop specific strategic and technical measures/options (including assumptions) and indicators generated by the SECAP study with key authorities and stakeholders, preferably in a workshop. These are to be based on existing lessons learned and good practises which are ready for scaling up. Stakeholders include some or all of the following: farmer groups, government ministries (environment, agriculture livestock and fisheries health, social and economic planning) Regional/Municipal authorities, CSOs, academic organizations, business groups and the donor community. Compile interim and final reports from the SECAP study and present them to the COSOP design team.
- vi. Draft a set of investment concept notes for future projects interventions (ASAP, GEF) that incorporate climate change adaptation, and associated mitigation measures, Disaster Risk Reduction (DRR), Sustainable Land Management (SLM) etc. Identify national and provincial implementation arrangements (government, research institutions, and line agencies) that would be ideal in carrying forward the interventions that have been identified. Analyse the interventions proposed by the COSOP design team and, if necessary, suggest environmental enhancements for "greening" the project ideas. Propose a knowledge management methodology for facilitating evidence-based policymaking and transferring knowledge back to project level implementation.
- vii. Expected Outputs. The SECAP preparatory study report, which is concise and consistent with the provisions of the IFAD Social, Environmental, and Climate Assessment Procedures, the IFAD Climate Change Strategy and the ENRM Policy,

and is grounded in relevant national strategies and priorities. The report will include the approach and methodology and be supported by summaries of the data collected and citations for any references used in interpreting those data. It will also include a table that provides an overview of the key issues (technical and systemic), indicating the rationale for their selection and a synthesis of associated specific recommendations and proposed indicators. Although all recommended actions specific to a particular issue are considered important, some specific actions deserve special attention. It is recommended that the actions be categorized according to those that should be: (i) continued; (ii) reinforced; (iii) modified; and (iv) introduced for the first time. In addition, their level of priority (high, medium or low) should also be indicated.

- viii. A set of investment concept notes grounded in country specific analysis for ensuring that the COSOP and its investments are both climate-sensitive and environmentally sustainable. Provide the key SECAP Study findings to the COSOP design team and ensure that they are reflected in the final COSOP document. This will require writing up sections of the COSOP including enhancing project concepts proposed by the other team members.
- ix. A two-page (maximum) note outlining rationale and elements for IFAD consideration of an intervention to enhance climate adaptation in the country; and
- x. Summaries of the workshop presentations, synthesis of stakeholder meetings (as necessary) and outcomes of the consultations;
- xi. A bibliography listing the references of main documents consulted. All documents should be uploaded in a Dropbox file.
- xii. Mission outputs will be delivered by 27 August 2015 at the latest.

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## Country at a glance

COUNTRY ECONOMIC BACKGROUND			
<b>Land area (km2 thousand) 2015 1/</b>	1 811 570	<b>GNI per capita Atlas method (Current USD) 2014 1/</b>	3 630
<b>Total population (million) 2014 1/</b>	254 454 778	<b>GDP per capita growth (annual %) 2014 1/</b>	3.7
<b>Population density (people per km2) 2014 1/</b>	140	<b>Inflation, consumer prices (annual %) 2015 1/</b>	6.4
<b>Local currency</b> Indonesian Rupiah (IDR)		<b>Exchange rate: USD 1 = 13600.7 IDR</b>	
<b>Social Indicators</b>		<b>Economic Indicators</b>	
Population growth (annual %) 2014 1/	1.2	GDP (Current USD million) 2014 1/	888 538
Crude birth rate (per thousand people) 2014 1/	20	GDP growth (annual %) 1/	
Crude death rate (per thousand people) 2014 1/	7.2	2010	6.2
Infant mortality rate (per thousand live births) 2015 1/	22.8	2014	5.0
Life expectancy at birth (years) 2014 1/	69		
Number of rural poor (million) (estimate) 1/	n/a		
Poor as % of total rural population 1/	n/a	<b>Sectorial distribution of GDP 2014 1/</b>	
Total labour force (million) 2014 1/	124	% agriculture	13.4
Female labour force as % of total 2014 1/	38	% industry	41.9
		% manufacturing	21
		% services	42.2
<b>Education</b>		<b>Consumption</b>	
School enrolment, primary (% gross) 2013 1/	106.3	General government final consumption expenditure (as % of GDP)	9.5
Adult literacy rate (% age 15 and above) 2011 1/	93	Household final consumption expenditure, etc. (as % of GDP)	56.6
<b>Nutrition</b>		Gross domestic savings (as % of GDP)	33.9
Daily calorie supply per capita	n/a		
Malnutrition prevalence, height for age (% of children under 5) 2013 1/	36.4		
Malnutrition prevalence, weight for age (% of children under 5) 2013 1/	20	<b>Balance of Payments (USD million)</b>	
		Merchandise exports 2014 1/	176 300
<b>Health</b>		Merchandise imports 2014 1/	178 179
Health expenditure, total (as % of GDP) 2014 1/	2.8	Balance of merchandise trade	n/a
Physicians (per thousand people) 2012 1/	0.2	Current account balances (% of GDP)	-3.1
Population using improved water sources (%) 2015 1/	87.4	before official transfers 1/	n/a
Population using adequate sanitation facilities(%) 2015 1/	60.8	after official transfers 1/	n/a
		Foreign direct investment, net 2014 1/	-159 620
<b>Agriculture and Food</b>		<b>Government Finance</b>	
Food imports (% of merchandise imports) 2014 1/	9.5	Cash surplus/deficit (as % of GDP) 2012 1/	-1.76
Fertilizer consumption (kilograms per hectare of arable land) 2013 1/	204.6	General government final consumption expenditure (% of GDP) 2014 1/	9.5
Food production index (2004-06-01=100) 2013 1/	137.5	Present value of external debt (as % of GNI) 2014 1/	15.6
Cereal yield (kg per ha) 2014 1/	5095	Total debt service (% of GNI) 2014 1/	5.4
<b>Land Use</b>		Lending interest rate (%) 2015 1/	12.7
Arable land as % of land area 2013 1/	13	Deposit interest rate (%) 2015 1/	8.3
Forest area as % of total land area 2015 1/	50.2		
Irrigated land as % of total agric. land 2005 1/	15.2		

1/ World Bank, *World Development Indicators* Online database ( <http://databank.worldbank.org/data> )

## Concept Notes

The PBAS for Indonesia in IFAD10 amounts to USD 108 million. These funds will be utilized for two investments, which are both already included in the Government's Blue Book, the core planning document for externally funded development initiatives:

- The Rural Empowerment and Agricultural Development Programme on Sulawesi Island (READSI), a scale up of the Rural Empowerment and Agricultural Development Programme, focussing on improving livelihoods of Indonesian smallholder families by empowering poor rural communities to access inputs, services and markets to sustainably increase their incomes. This project will be presented to IFAD's Executive Board in December 2016. The concept note has been approved in a standalone OSC on 22 April 2016.
- The Young Entrepreneurs Services Programme (YESS), an initiative aiming at modernizing the Indonesian agricultural sector and to promote employment opportunities for young rural men and women. The project will be presented to IFAD's Executive Board in December 2017.

Indonesia will further receive USD 1 million in grant funds, which will go towards the establishment of a Knowledge Management and Policy Dialogue Platform on Agriculture and Food Security (integrated in READSI). As in the past, Indonesia is expected to benefit of regional grant initiatives, particularly in the areas of research and capacity-building. Finally, IFAD has successfully mobilized GEF-resources for a haze-prevention, sustainable peatland management project (total project cost USD 49.5 million)

Concept Note on: Republic of Indonesia: Rural Empowerment and Agricultural Development Programme on Sulawesi Island (READSI)

## Background

IFAD supported the Rural Empowerment and Agricultural Development (READ) Programme from 2008 to 2014. Following a re-design at mid-term, the project has achieved significant results. Given this success, the Government of Indonesia (GoI) has requested IFAD's support in scaling-up the READ model for community-driven agricultural and rural development.

### A. Strategic context and rationale for IFAD involvement, commitment and partnership

Indonesia is a fast growing middle-income country (MIC) with the fourth largest population in the world. The country is increasingly urbanized. With a 3% annual urban growth, over 50% of Indonesians now live in urban centres, generating a soaring demand for consumption goods and food products in particular.

Steady economic growth has led to gradual poverty reduction. The number of people living below the national poverty line of IDR 312,000/month (USD 21.7) has dropped from 24% in 1999 to 11% in 2014 (27.7 million people). The pace of poverty reduction has however been slowing down over the last years and the 2010-2014 national development plan target to reduce poverty to 8-10% could not be achieved. Besides, another 27% of the population (68 million people) are near poor and are extremely vulnerable to shocks such as illness, extreme weather or price volatility. Consequently, it is estimated that about 25% of Indonesians have fallen under the poverty line at least once in a three year period.

The current five-year Medium-Term National Development Plan (2015-2019) projects a reduction of the poverty rate from 11% to 7-8% and an annual economic growth rate of 8%. The agricultural, fisheries and forestry sector are expected to grow by 4.5% (0.6% over the 2014 growth rate) over the same period. The plan targets four priority areas: food sovereignty, energy sovereignty, marine and maritime development and improved livelihoods for the poor through better access to basic services and to the productive economy.

Since IFAD has started working in Indonesia in 1980, 17 loan projects have been developed, totalling USD1 627 million, of which USD 530 million were financed by IFAD. Under the 2009-2016 COSOP, IFAD's support has focused on the poor, food insecure and ethnic minority communities in rainfed, upland, coastal and other marginalized areas. Most projects have targeted Eastern Indonesia because of the higher incidence of poverty in this part of the country, weaker institutional capacity and lower level of engagement of other donors and the private sector. The country programme has also given prominence to women's empowerment and the transformation of gender relations in socioeconomic development.

### B. Possible geographic area of intervention and target groups

The interventions will focus on Sulawesi island, which offers diverse geographic, agro-economic and sociocultural settings. In fact, Sulawesi Island presents diverse development challenges that reflect those experienced across Indonesia and is therefore the ideal setting to test and refine a rural development approach for nationwide scaling-up. There is considerable variation in the poverty profile of Sulawesi Island and its six provinces. Three of the six provinces (Sulawesi Tenggara, Gorontalo and Sulawesi Tengah) have rural poverty rates above the national average, whilst the other three (Sulawesi Selatan, Sulawesi Utara and Sulawesi Barat) have rural poverty rates lower than the national average. Incomes from agriculture still constitute around half of total rural incomes in the Sulawesi Provinces and the island still suffers from conflict and civil unrest.

Participating districts will be selected based on a number of criteria, including: (i) poverty levels; (ii) agricultural potential for the target group; (iii) willingness of district governments to contribute to project objectives through resources and policy support; and (iv) existence of diverse and varied development challenges that can further the scaling-up agenda of READSI. The districts will be selected before the inception of the Project.

READSI will target (i) landless and land-poor, including women-headed households, who will be included in activities directed at homestead gardening, improved nutrition and financial literacy

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and; (ii) the poor and near poor who have the potential to generate economic returns from agriculture with project support. The targeting strategy will combine an approach of geographical targeting combined with self-targeting activities. Women will constitute 50% of the overall target group.

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### C. Justification and rationale

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Agriculture remains the main source of income for one third of the population and for 64% of the poor<sup>11</sup>. While well commercialized in some parts of the country, smallholder agriculture in the remoter areas of Indonesia, such as Sulawesi, is largely characterized by subsistence farming and requires transformation. Low availability of modern inputs, lack of appropriate technologies, low access to irrigation (less than 50% of the 7.2 million irrigated hectares are fit for use), high post-harvest losses and limited access to finance, extension and other support services contribute to low yields and low returns from farming.

Sulawesi is a key production area for several commodity crops, including cocoa, rice and coconut. As a post-conflict region and as a consequence of Sulawesi's unique geography, markets are sparse. Large parts of the island have yet to be developed and potential for sustainable intensification is significant. There are therefore substantial opportunities to increase productivity through combined environmentally sustainable packages of support to enable smallholders to earn higher incomes serving responding to growing demand for a wide range of products from the increasingly urbanized population and growing middle class.

Innovation in rural empowerment and agricultural development. READ was implemented in Central Sulawesi from 2008 with the overall objective to promote a sustainable improvement in the livelihoods of the rural poor. The project had a slow start with poor initial performance. The project was redesigned during the midterm review (MTR) with a number of innovative elements to respond to beneficiaries' needs:

- the integration of community empowerment and agricultural productivity activities into one complete package of support;
- a focus on public-private partnership for instance with MARS for technical services in cocoa development;
- the out-sourcing of key services, such as village facilitation and input supply (such as improved seeds) to external partners, such as NGOs;
- a clear focus on selected key food and income crops that were supported with a comprehensive, well-resourced input package; and
- working capital finance being provided as group based and owned, non-collateral finance.

READ impact. After the MTR, project implementation quickly gained momentum and achieved strong results for rural women and men in Central Sulawesi<sup>12</sup>:

- Food security: 94% of READ HHs reported a reduced food shortage period of less than 3 months (average duration: 1.9 months, maximum 4 month), while only 54% of non-READ HHs could report a food security shortage period below 3 months (average duration: 3.2, maximum 10 months).
  - Increased income and asset ownership: READ HHs had higher income available than non-READ HHs and 40% of the average monthly READ HH income was above the local poverty line – compared to 29% in non-READ HHs. 83% of beneficiaries further reported an increased income from agricultural production. READ HHs also had a stronger asset ownership (including ownership of productive land) versus the control group and READ land owners feel more secure in their ownership (74% versus 44%).
  - Agricultural productivity: The service packages delivered to the smallholders resulted in strong yield increases: READ cocoa farmers achieved 193% higher yields than non-READ farmers. For coconut, the increment was as high as 500% (800kg with READ vs. 300kg without READ support).
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<sup>11</sup> Government of Indonesia, BPS

<sup>12</sup> Impact and Outcome Surveys, comparing READ participating households to non-READ households.

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- **Empowerment:** READ made a particular impact for women empowerment: As the Outcome Survey shows, women are now more involved in decision-making processes, both at the household and village level, and have increased access to economic, agricultural and financial resources.
  - **Access to markets and services:** 91% of READ HHs reported improved access to markets, vs. 50% of non-READ HHs. 95% of READ HHs reported improved access to credit and 81% had accessed a financial service over the last 12 month (vs. 33% of non-project HHs).

Within a fairly short timeframe, READ turned into a well-recognized and -appreciated brand among smallholder farmers and national, provincial and local government authorities. Since the READ programme completed in June 2015, activities have continued in all five project districts funded by the respective local government authorities, the private sector partners, and importantly the beneficiaries themselves.

Lessons learned. Key success factors, as identified by the implementing partners of READ, include: (i) its relevant core approach of smallholder empowerment and service delivery for production increase; (ii) a simple design with a strong poverty alleviation focus; (iii) the generally strong and motivated management at national and district level; and (iv) the combination and integration of technical expertise from different service providers, including public extension agents, NGOs and private sector. Additional lessons learned that are relevant for the forthcoming READSI programme are: (i) integrating empowerment with targeted technical support increases effectiveness; (ii) diversifying extension service improves the capacities available for rural communities; (iii) involving the private sector can strengthen service delivery, access to new technologies and access to markets; (iv) involving a neutral facilitator in negotiating a private public partnership can ensure mutual beneficial agreements; (v) involving village elders in decision-making processes ensures greater participation and smoother implementation; (vi) a decentralized management structure ensures flexible and targeted project activities.

Scaling-up. The GoI has identified READ as a model that can support achieving national development goals and has submitted a request for IFAD financing and technical support. Building on the lessons learned from READ and other IFAD-supported interventions in the country and region, READSI will upgrade the original READ approach and move from a project to a programmatic platform with an intention to influence future public and private investment. It is expected, that the READSI approach will be scaled up with national public financing. The scaling-up strategy of READSI combines testing and refining the READ approach in different settings with a strong knowledge management and evidence-based policy dialogue framework and institutional capacity-building.

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#### D. Key Project Objectives

The project goal would be to reduce poverty and enhance food security in the project area. The development objective of the project is to empower smallholder households to sustainably improve their livelihoods through increased income and improved family nutrition.

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#### E. Ownership, Harmonization and Alignment

The GoI requested IFAD to support the scaling-up of READ under READSI as it is considered as a strategic investment to achieve priorities and goals laid out in the 2005-2025 National Long-Term Development Plan and the 2015-2019 National Medium-Term Development Plan. Particularly the National Medium-Term Development plan gives prominence to agricultural sector development and aims at ensuring food security, self-sufficiency, and food sovereignty through increase of domestic production capacity. The project is fully aligned with the 2009-2016 COSOP and is working towards all three strategic objectives. It will further fully support the goal and objectives of the forthcoming COSOP, which will be presented to IFAD's Executive Board in September 2016.

The high degree of ownership for scaling-up this initiative, in the GoI in general and in the MoA in particular, is evident by the fact that MoA has already commenced scaling-up elements of READ in two other provinces in 2015, in West Kalimantan and West Nusa Tenggara with a total budget of approximately IDR20 billion per year (USD1.45 million), though in these very different agricultural

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and socioeconomic settings the initial implementation has progressed slower than expected, highlighting the need for further IFAD's technical expertise to facilitate a broader scaling-up.

Given the recent large increase in public investment in the agriculture sector (national budget allocation for MoA increased by 50% from 2015 to 2016, mainly for infrastructure investments), this scaling-up initiative provides a strategic opportunity to link to large scale investment programmes such as the very large UPSUS and the forthcoming GoI/ADB/IFAD-supported Integrated and Participatory Development of Irrigation Project (IPDMIP) as well as smaller and more localized initiatives.

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#### F. Components and activities

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READSI will maintain the overall component structure from the original READ project, but with a strengthening of some aspects of the approach. The main components and associated issues to be considered during the design include:

**Component 1 – Village Agriculture and Livelihood Development:** Activities under this component aim at empowering project-supported HHs individually and collectively with the skills, confidence and resources to sustainably improve their farm and non-farm incomes, livelihoods and family nutrition, by, among others, facilitating community mobilization and inclusive decision-making processes on project-supported investments and activities in the village. Activities under this component reflect the READ principles of a strong farmer focus, integration of social mobilization and technical support activities and the provision of integrated and comprehensive input packages.

**Component 2 – Key Services and Markets:** Activities under this component aims at sustainably improving the quality, relevance, availability and accessibility of critical services and input markets to serve the needs to project communities. Services under this component will be delivered in partnership with the private sector, mainstream financial services providers and other partners. This aims to support sustainability of impacts at the village level, build a platform for continued growth (particularly by addressing current bottlenecks in extension capacity and seed supply).

**Component 3 –Management and Policy Dialogue Platform:** (Loan-funded) Activities under this component will establish the key management systems and processes for a programme management platform (people, systems, processes) capable of effectively implementing larger scale investment in inclusive agriculture development building on the READ core approach.

The IFAD-grant will go towards a policy and knowledge management platform, which will be set up in the MoA but linked to the policy dialogue platform of the IFAD supported Integrated and Participatory Development and Management of Irrigation (IPDMIP) Project in the Ministry of National Development Planning (Bappenas). This platform will complement the investment activities by (i) building the capacity of public institutions at the national, provincial, and district level to generate the information (including through enhanced M&E capacities), analysis and knowledge required to guide public policies (such as the Village Law 6/2014 and the Farmers Empowerment Law 19/2013) and investments in rural and agricultural development. READSI has a strong potential for generating a model for combining community-driven and agricultural development, which is highly relevant for the GoI's policy agenda; and (ii) explore a dialogue with non-government stakeholders, such as private sector, universities and farmers' organisations in order to inform respective policies and investments.

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#### G. Preliminary Environmental and Social category

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The Project has been categorized as 'B' in line with IFAD's Social, Environmental and Climate Assessment Procedures. Many areas of Sulawesi are becoming environmentally fragile through a combination of increasingly difficult climatic conditions and continuing land degradation as farmers and businesses cut down tree crops and forest to plant short term cash crops in pursuit of higher incomes – particularly related to cocoa production. READSI, through its partnership with MARS, will work to reset these dynamic by raising the productivity of cocoa production through better clones and sustainable orchard management as already demonstrated by MARS in Sulawesi. To realize these systemic changes, READSI will reform the way inputs, services and advice is delivered to

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farmers. With regard to other crops, possible negative effects through intensification and development of new land will be mitigated by the introduction of sustainable production methodologies, including training on safe and appropriate use of agricultural inputs (and chemicals) and introduction of organic/bio pesticides, herbicides and fertilizers. Social impacts, in fact, are expected to be positive, given the central focus on community empowerment and the demonstrated results achieved under READ. During the detailed design, a SECAP review will be undertaken and opportunities and modalities for land use planning and landscape approaches explored.

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#### H. Preliminary Climate Risk classification

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While the risk of climate change on agriculture and natural resources in Indonesia is substantial in the long-term, the climate risk to the project is assessed as moderate. The project will focus on agriculture of both annual and perennial crops, with a significant proportion being rainfed agriculture and the balance being irrigated. Promoted integrated homestead gardening systems, which incorporate ponds, will provide some mitigation against short term climate driven food security issues. The project will explore safeguards such as utilization of GIS information for identification of climate hazard zones and introduction of appropriate mitigation and adaptation measures, particularly for the priority crops to reduce vulnerability of economic improvements to climate risks and secure higher and less volatile farming incomes.

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#### I. Costs and financing

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At the current stage, project costing is estimated (and included in the Blue Book, the core planning document for external loans and grants) as approx. USD37 million, financed by an IFAD loan (USD30 million), IFAD grant (USD1 million), and GoI investment of USD6 million.

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#### J. Organization and management

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The Executing Agency will be the Ministry of Agriculture. The Implementation Agency will be the MoA's Agency for Agricultural Extension and Human Resources Development (AAEHRD), the same institution which successfully implemented the READ.

District governments will have a key role in implementation of activities at the village and district level given the decentralized implementation modalities. Performance-based benchmarking systems will be developed building on the successful lessons learned from the IFAD-supported Coastal Community Development Project (CCDP), to increase transparency, accountability and raise the performance of local government delivery.

As in the READ project, external partnerships will form a key element of the project, for example (i) partnerships with NGOs (or similar specialist service providers) for community empowerment, especially technical assistance and oversight. These partnerships are expected to be selected/negotiated at national level and coordinated locally on a day-to-day basis at the district level; and (ii) Private Public Producer Partnerships with agribusinesses will be explored and facilitated, dependent on the commodity and value chain structure.

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#### K. Monitoring and Evaluation indicators

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The M&E system will be based on the logframe and will report on the RIMS indicators and other relevant data, disaggregated by sex. An MIS system will be also developed. Both systems will generate information for three distinct functions: (i) management; (ii) accountability; and (iii) learning and policy dialogue. The design the M&E and MIS system will be based on the successful innovations of CCDP, including a dashboard for performance management and monitoring and the utilization of ICT tools for information transparency and knowledge-sharing. In broad terms, three different kinds of M&E will be carried out under the Project: (i) monitoring of implementation and financial progress, and achievement of sub-outputs; (ii) safeguard monitoring; and (iii) evaluation of outputs, outcome and impact.

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#### L. Risks

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The main risks of the project relate to the selection of priority crops, partnerships, elite capture and sustainability. Sufficient project management capacity and long procurement processes can further impact implementation progress.

Risk	Mitigation Measure
Priority crops do not sufficiently offer market opportunities for smallholders.	Priority crops to be supported will be selected in close consultation with all relevant stakeholders and based on a thorough, participatory market assessment.
Partnerships with private sector not beneficial for smallholder farmers.	Based on IFAD's experience in Indonesia and other countries, PF will be facilitated following an extensive due diligence and based on producer involvement.
Elite capture of project benefits.	This will be addressed by (i) providing adequate training on good leadership to the designated leaders and possible installation of complaint mechanisms; (ii) sensitizing implementing agencies and partners; (iii) selection of crops/activities targeted at women and small farmers; (iv) making information on sub-project selection and financing widely available; (v) requesting MOA to provide an anti-corruption plan for the project to be approved by the anti-corruption agency; and (vi) creation of a mechanism for resolution of grievances at the community level.
Limited sustainable O&M mechanism for infrastructure developed.	Wherever possible, infrastructure O&M will be signed over to community groups under the responsibility of the village heads. The balance will be linked to other Government investments and agreed upon with the respective IA, with an agreement that O&M budget is included in district annual investment plans for at least 5 years after project closure.
Weak implementation capacity	Institutional implementation capacity in Indonesia is mixed. This would be addressed through support for institutional development and, where appropriate, through diversifying implementation partners (including NGOs and private sector).

#### M. Timing

The GoI is expecting implementation to start up in January 2017. The timeline going forward will therefore be: (i) Detailed Design - April 2016; (ii) QE Review - June 2016; (iii) Final Design - July 2016; (iv) IFAD QA Review - September 2016; (v) Loan Negotiations - November 2016; (vi) IFAD Executive Board - December 2016.

PROJECT/PROGRAMME CONCEPT NOTE  
Draft Logical Framework READSI

Results Hierarchy	Measure	Source	Assumption
<b>Goal</b> Reduce poverty and enhance food security in the project area.	<ul style="list-style-type: none"> <li>- 70% of participating HHs with improvement in household assets [baseline: TBC]</li> <li>- Chronic malnutrition reduced by 10% in children under 5 years of age [baseline: 40%, Source: Riset Kesehatan Dasar-Riskesdas]</li> </ul>	<ul style="list-style-type: none"> <li>- District and Provincial statistics</li> <li>- RIMS and impact surveys at baseline and completion</li> </ul>	<ul style="list-style-type: none"> <li>- Continued social, political and economic stability</li> <li>- Continued prioritization of agricultural development by GoI.</li> <li>- Project successes are scaled up.</li> </ul>
<b>Development Objective</b> Empower XX smallholder households to sustainably improve their livelihoods (increased income from growth of economic activities and family nutrition).	<ul style="list-style-type: none"> <li>- 50% real increase in labour productivity for &gt; 60% of participating HHs</li> <li>- Developmental return on investment (ROI) exceeds 20%</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> <li>- Impact surveys at baseline and completion</li> </ul>	<ul style="list-style-type: none"> <li>- Smallholders continue to be willing to organize and modernize production practices.</li> <li>- Continued prioritization of agricultural development by GoI.</li> </ul> <p>Remark: Developmental return on investment (ROI) = NPV of increased net farm income of HHs total direct public sector cost of project</p>
<b>Outcome 1</b> Project-supported households are empowered individually and collectively with the skills, confidence and resources to sustainably improve their farm and non-farm incomes and livelihoods.	<ul style="list-style-type: none"> <li>- 30% increase in average yield for flagship products for supported HHs</li> <li>- 70% women participating in the project adopt improved family nutrition behaviours, set-up integrated homestead and provide ongoing mutual support;</li> <li>- 60% of HHs are saving regularly with a CBFO or FSPs (average at least once per month)</li> <li>- Commodity and livelihood groups are active and functioning effectively in 90% project villages.</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> <li>- Comparative data of beneficiaries and control group</li> <li>- National, provincial and district statistics</li> </ul>	<ul style="list-style-type: none"> <li>- Smallholders continue to be willing to organize and modernize production practices.</li> <li>- Commercial financial service providers are willing to collaborate and to develop financial products targeted at the rural poor.</li> </ul> <p>Remark: CBFO - community-based financial organization FSP = financial service providers e.g. banks, MFIs, rural banks</p>
<b>Output 1.1</b> Communities' development priorities identified and addressed.	XX community development plans prepared and implemented in project villages.	Project Progress Reports	
<b>Output 1.2</b> Enhanced skills of smallholder farmers' families.	<ul style="list-style-type: none"> <li>- XX farmers trained in improved production/post-harvest technology.</li> <li>- XX women trained in integrated homestead gardening.</li> <li>- XX beneficiaries complete financial literacy training</li> <li>- XX HHs received nutrition education.</li> </ul>	Project Progress Reports	
<b>Outcome 2</b> In project districts, the quality, relevance,	<ul style="list-style-type: none"> <li>- 80% of HHs are satisfied with the: a) relevance, b) quality, and c) accessibility of agricultural extension</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> </ul>	<ul style="list-style-type: none"> <li>- Smallholders continue to be willing to organize and modernize production practices.</li> </ul>

availability and accessibility of critical services and input markets is substantially improved to serve the needs to project communities and others.	<ul style="list-style-type: none"> <li>and advisory services provided by the public and private sector (disaggregated by provider)</li> <li>- Rice Seed – affordable, quality, certified "READ" seed (or equivalent) readily available for all farmers to buy as needed in the local market in 80% of rice producing project villages</li> </ul>	<ul style="list-style-type: none"> <li>- Focus group discussions</li> <li>- National, provincial and district statistics</li> </ul>	<ul style="list-style-type: none"> <li>- Private sector partners are willing to collaborate.</li> <li>- Public policies continue to support private sector-driven development.</li> </ul>
<b>Output 2.1:</b> Public extension system upgraded	<ul style="list-style-type: none"> <li>- XX extension workers trained</li> <li>- XX READSI practices reflected in agricultural extension curricula</li> </ul>	Project Progress Reports	
<b>Output 2.2:</b> Service and market linkages established for smallholder farmers.	<ul style="list-style-type: none"> <li>- XX PPPPs set up and functioning</li> <li>- XX HHs as clients of mainstream financial service providers</li> </ul>	Project Progress Reports	
<b>Outcome 3</b> Project is managed transparently and efficiently and is generating models and tools for policies and investments for rural development.	<ul style="list-style-type: none"> <li>- 80% of project funds are disbursed in a timely manner in line with targets set in AWPBs.</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> <li>- Focus group discussions</li> <li>- National, provincial and district statistics</li> </ul>	<ul style="list-style-type: none"> <li>- Continued prioritization of agricultural development by Gol.</li> <li>- Sufficient resources are made available within the MoA.</li> <li>- Gol takes up recommendations and best practices under READSI</li> </ul>
<b>Output 3.1</b> PMO and PIUs established and run effectively.	<ul style="list-style-type: none"> <li>- M&amp;E and MIS system set up and functional</li> <li>- Performance management system established and functioning</li> </ul>	<ul style="list-style-type: none"> <li>- Project Progress Reports</li> <li>- Supervision Reports</li> </ul>	
<b>Output 3.2</b> Strengthened policy and institutional framework for agricultural investments and community-driven agricultural development.	<ul style="list-style-type: none"> <li>- XX policy inputs produced</li> <li>- XX partnerships with non-governmental stakeholders established</li> <li>- READSI approach is scaled up to additional 100 villages through Government funding.</li> </ul>	<ul style="list-style-type: none"> <li>- Project Progress Reports</li> <li>- Supervision Reports</li> </ul>	

PROJECT/PROGRAMME CONCEPT NOTE  
Draft Logical Framework YESS

Results Hierarchy	Measure	Source	Assumption
<b>Goal</b> Reduce poverty and improve food security through youth participation in the agriculture-based sector	<ul style="list-style-type: none"> <li>- xxx direct beneficiary youth reporting improvements in asset ownership, as compared to baseline (RIMS)</li> <li>- At least 50 % of target entrepreneurs, graduates of vocational schools and apprentices are women</li> </ul>	<ul style="list-style-type: none"> <li>- District and Provincial statistics</li> <li>- RIMS and impact surveys at baseline and completion</li> </ul>	<ul style="list-style-type: none"> <li>- Continued social, political and economic stability</li> <li>- Continued prioritization of agricultural development by Gol</li> </ul>
<b>Development Objective</b> Promote employment opportunities and sustainable sources of income for young women and men in the rural areas	<ul style="list-style-type: none"> <li>- xxx programme-supported youth enterprises are still in business after 3 years (RIMS), of which 50% owned by women/50% owned by migrant returnees</li> <li>- xxx programme-supported graduates of vocational schools and apprentices, of which 50% of women, are in gainful employment over at least 6 months</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> <li>- Impact surveys at baseline and completion</li> <li>- Schools statistics</li> </ul>	<ul style="list-style-type: none"> <li>- Rural job and business opportunities are attractive to youth if they generate income</li> <li>- Rural-based medium and large enterprises are interested in hiring local skilled labour</li> </ul>
<b>Outcome 1</b> Young rural graduates of agriculture vocational training schools develop enterprises or access gainful employment	<ul style="list-style-type: none"> <li>- xxx % of graduates are hired in agriculture-based enterprise</li> <li>- xxx apprentices (of which 50% men) have apprenticeship contract and xxx% of them are hired</li> <li>- xxx of graduates (of which 50% men) create their own enterprise in the agriculture-based sector</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> <li>- Schools statistics</li> </ul>	<ul style="list-style-type: none"> <li>- Rural job and business opportunities are attractive to youth if they generate income</li> <li>- Rural-based medium and large enterprises are interested in hiring local skilled labour</li> </ul>
<b>Output 1.1</b> Curriculums of agriculture vocational schools in target areas integrate entrepreneurship education/are linked to job placement	<ul style="list-style-type: none"> <li>- xxx agriculture vocational schools with revised curriculum linking skills development to job placement or entrepreneurship development</li> </ul>	Project Progress Reports	
<b>Output 1.2</b> Students of agriculture vocational schools receive practical education/entrepreneurship education	<ul style="list-style-type: none"> <li>- xxx students (of which 50% men) have graduation certificate along new curriculum</li> <li>- xxx students (of which 50% men) have apprenticeship contracts</li> </ul>	<ul style="list-style-type: none"> <li>- Project Progress Reports</li> <li>- Schools statistics</li> </ul>	
<b>Outcome 2</b> Rural young women and men have access to financial and non-financial services enabling them to create, expand and sustain agriculture-based enterprises	<ul style="list-style-type: none"> <li>- xxx young rural entrepreneurs (of which 50% owned by women, xxx% owned by migrant returnees/families) have a business plan and use BDS</li> <li>- xxx young rural entrepreneurs (of which 50% owned by women, xxx% owned by migrant returnees/families) participate in business to business arrangements</li> <li>- xxx young rural entrepreneurs (of which 50% owned by women, xxx% owned by migrant returnees/families) have access to investment loans (RIMS)</li> <li>- xxx migrants/migrants' families open a bank account and deposit part of their remittances</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> </ul>	
<b>Output 2.1</b> Service providers with capacities to provide business development services to young entrepreneurs and young migrants willing to reintegrate	<ul style="list-style-type: none"> <li>- System for accreditation and quality monitoring of BDS providers operational in target provinces</li> <li>- xxx BDS providers accredited and trained</li> </ul>	Project Progress Reports	

Results Hierarchy	Measure	Source	Assumption
<b>Output 2.2</b> Rural youth and migrants have access to financial services	<ul style="list-style-type: none"> <li>- USD xxx million loan extend by financial institutions (RIMS)</li> <li>- USD xxx million consolidated savings deposited by migrants on newly-opened accounts (RIMS)</li> <li>- xxx financial institutions with capacities and services to support youth/migrants' entrepreneurship</li> <li>- xxx new financial products tested and rolled out by xxx financial institutions to suit the needs of young/migrants' entrepreneurs</li> </ul>	Project Progress Reports	Financial institutions are interested in extending affordable services to rural youths and migrants
<b>Outcome 3</b> Project is managed transparently and efficiently and policies and institutional capacities required to promote rural youth entrepreneurship and migrants' investment are in place	<ul style="list-style-type: none"> <li>- 80% of project funds are disbursed in a timely manner in line with targets set in AWPBs.</li> <li>- National policy framework enhanced</li> <li>- Key institutions involved in the promotion of young rural women and men/migrants' reintegration in the target districts and at national level are delivering expected, gender-sensitive services</li> </ul>	<ul style="list-style-type: none"> <li>- Project Monitoring System (including RIMS)</li> <li>- Focus group discussions</li> <li>- National, provincial and district statistics and reports</li> <li>- Users' satisfaction surveys</li> </ul>	<ul style="list-style-type: none"> <li>- Continued prioritization of agricultural development by Gol</li> <li>- Sufficient resources are made available within the MoA</li> <li>- Gol is interested in actively promoting youth and in maximizing migration benefits for the country</li> </ul>
<b>Output 3.1</b> Project management structure established and run effectively.	<ul style="list-style-type: none"> <li>- M&amp;E and MIS system set up and functional</li> <li>- Performance management system established and functioning</li> </ul>	<ul style="list-style-type: none"> <li>- Project Progress Reports</li> <li>- Supervision Reports</li> </ul>	
<b>Output 3.2</b> Strengthened policy and institutional framework for agricultural investments and community-driven agricultural development.	<ul style="list-style-type: none"> <li>- xxx policy inputs produced</li> <li>- xxx public service departments in target provinces with new skills</li> <li>- Evidence-based models promoting youth employment and supporting migrants' reintegration in the agriculture-based sector are available YES approach is scaled-up to additional xxx provinces through Government funding</li> <li>- Partnerships with public and private stakeholders to support policy dialogue are developed</li> </ul>	<ul style="list-style-type: none"> <li>- Project Progress Reports</li> <li>- Supervision Reports</li> </ul>	

## Key file 1: Rural poverty and agricultural/rural sector issues

Priority Areas	Affected Groups	Major Issues	Actions Needed
<b>Poverty reduction</b>	Small holder crop livestock and fishing households, women and women headed households, ethnic minorities.	<ul style="list-style-type: none"> <li>Incidence of poverty in rural areas higher than in urban areas.</li> <li>Incidence of poverty higher in Eastern Indonesia than elsewhere, although the greatest numbers of poor people are to be found in Java.</li> <li>A high proportion of rural population is living just above the poverty line and vulnerable to shocks.</li> </ul>	<ul style="list-style-type: none"> <li>Policies, strategies and investment that focus on sustainable improvements in agricultural productivity and increasing non-farm employment in rural areas.</li> <li>Continuing special focus on Eastern Indonesia and consider expanding to areas with higher poverty density</li> <li>Promote progressive upgrading approach for building assets</li> <li>Promote risk mitigation mechanisms such as savings, insurance, group formation, fair contract farming arrangements.</li> </ul>
<b>Organising small holder producers</b>	Smallholder producers especially in upland and coastal communities.	<ul style="list-style-type: none"> <li>Low capacity to plan, finance and manage activities within government structures at village level.</li> <li>A lack of community participation in formulating, financing and implementing development activities leading to a lack of sustainability and a dependency on government.</li> <li>Inefficient use of government funds due to corruption and leakages</li> <li>Low access of rural poor to village meetings</li> <li>Aspiration of rural poor usually not covered in village meetings</li> <li>Gender inequality</li> <li>Informal self-help groups with low skills and low levels of organisation</li> </ul>	<ul style="list-style-type: none"> <li>Use participatory and inclusive procedures to plan, finance and manage village development activities, in particular Village Development Fund, land management and climate-smart natural resource management</li> <li>Develop capacity of the local communities to engage successfully with government, business and financial entities.</li> <li>Mainstream gender in all activities</li> <li>Support upgrade of Self-Help Groups to empowered and legalised farmers' organisation providing services to members</li> </ul>
<b>Agricultural production and productivity</b>	Subsistence-oriented and small-scale plantation crop farmers. Farmers in marginal upland areas. Coastal communities. Farmers in forest areas.	<ul style="list-style-type: none"> <li>Low returns to annual and plantation crop production</li> <li>Limited knowledge of appropriate and modern agricultural practices.</li> <li>Lack of effective extension and research outreach for agriculture.</li> <li>Limited techniques used on sloping land, thus semi-shifting cultivation systems show low and declining productivity.</li> <li>Destructive and unsustainable fishing techniques.</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced access of smallholders to improved infrastructure, inputs, technology and advisory services</li> <li>Enhanced farmer capacity to deal with climate change and adopt sustainable and climate resilient farming practices.</li> <li>Create effective links between small producers and public and private sector sources of technical support</li> <li>Implement existing fisheries and environmental legislation.</li> <li>Train fishermen to apply sustainable farming techniques.</li> <li>Train farmers in post-harvest management</li> </ul>
<b>Security of land tenure</b>	Marginal, upland and indigenous communities.	<ul style="list-style-type: none"> <li>Insecure land tenure due to limited access to registration facilities.</li> <li>Insecure land tenure where traditional <i>adat</i> tenure systems conflict, and in places overlap, with the formal system of land titles.</li> <li>Traditional systems of tenure vulnerable to takeover in commercial and cultural conflict situations.</li> <li>Traditional tenure unsuited for use as collateral.</li> </ul>	<ul style="list-style-type: none"> <li>Raise awareness of indigenous communities to land tenure issues.</li> <li>Strengthen government capacity for solving land ownership demarcation, mapping and registration issues in vulnerable communities.</li> <li>Support land management planning and land registration</li> </ul>

Priority Areas	Affected Groups	Major Issues	Actions Needed
<b>Rural Infrastructure</b>	Eastern Indonesia is particularly disadvantaged.	<ul style="list-style-type: none"> <li>Deteriorated or no rural infrastructure in many locations (e.g. access and farm production roads, jetties, drinking water supply schemes, markets etc.).</li> <li>Limited irrigation systems in many lowland areas with irrigation potential.</li> <li>Limited community involvement in provision of local infrastructure leading to limited ownership.</li> <li>Limited appropriate arrangements for O&amp;M of rural infrastructure, in particular agriculture</li> </ul>	<ul style="list-style-type: none"> <li>Build and upgrade rural access and farm production roads and efficient, small-scale irrigation schemes, where technically appropriate and cost-effective.</li> <li>Build and upgrade other rural infrastructure in line with community requirements.</li> <li>Ensure that infrastructure investments are cost-effective, without adverse environmental impacts and include appropriate arrangements for O&amp;M.</li> </ul>
<b>Rural finance</b>	All poor farmers and rural people but marginal upland and coastal areas most disadvantaged.	<ul style="list-style-type: none"> <li>Limited opportunities for farmers to access credit facilities.</li> <li>Reluctance of commercial banks to extend credit to small farmers, particularly for medium-term investments.</li> <li>Lack of collateral to secure loans.</li> <li>Lack of risk management mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>National policy dialogue on micro-finance development, including finance for rural areas.</li> <li>Availability of short, medium and long-term loans for production and investment for farmers and SMEs.</li> <li>Banks to provide innovative financial products to overcome access and collateral difficulties.</li> <li>Upgrade banks staff skills to engage with small farmers</li> <li>Enhanced role for agribusiness SMEs in providing finance for farmers.</li> <li>Provide opportunities for accessing a range of appropriate financial services.</li> <li>Strengthen micro financial institutions in rural areas.</li> <li>Promote risk mitigation instruments, including insurance</li> <li>Improve effectiveness and sustainability of savings and loans groups</li> <li>Promote branchless banking</li> </ul>
<b>Access to markets</b>	Rural communities	<ul style="list-style-type: none"> <li>Limited supply of production inputs</li> <li>Limited access to markets</li> <li>Limited and poorly organised marketing and market information systems.</li> </ul>	<ul style="list-style-type: none"> <li>Develop agents to supply production inputs to local communities.</li> <li>Develop marketing cooperatives.</li> <li>Introduce contract farming arrangements between farmer and private sector</li> <li>Promote business partnerships between farmers' organisations and private businesses</li> <li>Enhance farmers' capacity to reduce transactions costs.</li> </ul>
<b>Limited availability of gainful jobs for rural youth</b>	Poor youth	<ul style="list-style-type: none"> <li>Need for improving entrepreneurship skills</li> <li>Need for employment information</li> <li>Need for employment skills</li> </ul>	<ul style="list-style-type: none"> <li>Improving youth and women skills for employability</li> <li>Improving the quality of apprenticeship of youth and women</li> <li>Improving quality of and access to the labour market information system and to business information</li> <li>Improve agriculture vocational training programmes to improve practical training and support to start business</li> <li>Develop adapted financial services</li> <li>Promote young farmers' organisations and clusters</li> </ul>



## Key file 2: Organizations matrix (strengths, weaknesses, opportunities and threats analysis)

Organisation	Strengths	Weaknesses	Opportunities	Threats
<b>Government organisations</b>				
<b>State Ministry for National Development Planning (BAPPENAS)</b>	<ul style="list-style-type: none"> <li>• Key national policy development role with competence for national development planning and strategy formulation.</li> <li>• Key role in coordinating multilateral development assistance.</li> <li>• Clear direction in which to steer the country.</li> <li>• Participatory an inclusive style of working and engaging line agencies.</li> <li>• Proactive in experimenting with new partnerships such as public-private sector partnerships.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited financial power to allocate resources to the provinces and <i>kabupatens</i>.</li> <li>• Limited capacity in preparation of detailed sector policies and plans.</li> </ul>	<ul style="list-style-type: none"> <li>• Can play an enabling, facilitating and coordinating role in the use of IFAD and other donor resources effectively.</li> <li>• Can help to leverage IFAD resources through contributions from its own funds and those from other sources.</li> <li>• Can help to strengthen IFAD's partnerships with the private sector.</li> <li>• Can play a key role in supervising projects and providing implementation support to enhance impact.</li> <li>• Can play a leadership role in the non-lending activities financed by IFAD.</li> </ul>	
<b>Ministry of Finance (MOF)</b>	<ul style="list-style-type: none"> <li>• Well developed and generally efficient financial management system for use of IFAD funds to finance programme activities.</li> <li>• Capacity to support decentralised project implementing agencies to establish and operate financial management systems.</li> </ul>		<ul style="list-style-type: none"> <li>• Can manage the Special Account, flow of funds and withdrawal applications.</li> </ul>	
<b>Ministry of Agriculture (National)</b>	<ul style="list-style-type: none"> <li>• A range of technical and administrative capabilities.</li> <li>• Strong commitment to achieving the GOI objectives of food self-sufficiency, enhancing agriculture production and productivity.</li> <li>• Proactive in establishing Innovative Public-Private Partnerships.</li> <li>• The Government has been serious about providing extension services to the village level as evidenced by its target of "one village, one extension worker".</li> </ul>	<ul style="list-style-type: none"> <li>• Limited capacity to assess the impact of Government funded programmes, in particular the impact of input and price subsidies.</li> <li>• Lack of direct authority on provincial and further local levels</li> </ul>	<ul style="list-style-type: none"> <li>• To enhance impact through an enabling role in supportive policy, regulatory, coordination and monitoring functions.</li> <li>• To develop a long-term vision for the development of agriculture extension services.</li> <li>• To strengthen the capacity of provincial governments to assume a leadership role in the agriculture sector.</li> </ul>	
<b>Ministry of Marine Affairs and Fisheries</b>	<ul style="list-style-type: none"> <li>• A range of technical and administrative capabilities.</li> <li>• Strong commitment to achieving the GOI objectives of enhancing fish production of small and coastal fishing communities.</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulty in transitioning from a role of direct implementation to one of enabling and facilitating</li> <li>• Limited capacity to assess the impact of Government funded programmes</li> <li>• Lack of direct authority on provincial and further local levels</li> </ul>	<ul style="list-style-type: none"> <li>• To enhance impact through an enabling role in supportive policy, regulatory, coordination and monitoring functions.</li> <li>• To develop a long-term vision for the development of the fisheries sector.</li> <li>• To strengthen the capacity of fisheries cooperatives to enhance production, reduce post-harvest losses and increase links to markets.</li> </ul>	

Organisation	Strengths	Weaknesses	Opportunities	Threats
<b>Directorate of Water Resources and Irrigation</b>	<ul style="list-style-type: none"> <li>• A clear vision of future development strategy</li> <li>• Strong potential to improve productivity in the agriculture sector.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited success in developing models for sustainable operation and management of irrigation infrastructure by local communities and users.</li> </ul>	<ul style="list-style-type: none"> <li>• Invest in viable schemes for high impact on smallholder production.</li> <li>• Opportunity to build innovative public-private sector partnerships for O&amp;M</li> </ul>	
<b>Bank Indonesia</b>	<ul style="list-style-type: none"> <li>• Independent Central Bank in charge of monetary policy, maintaining a fluid payment system and managing and supervising the banking system.</li> <li>• Policy roles in supporting the capacity-building for local financial institutions and in providing financial services for SMEs.</li> <li>• There has recently been an invigoration in its role and it has undertaken several measures to enhance the outreach of financial services in the country.</li> </ul>	<ul style="list-style-type: none"> <li>• Bank supervision has been weak.</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthening the micro-finance regulations for enhancing the access of financial service provision to rural areas.</li> <li>• Capable of playing an enabling and facilitation role and supporting capacity-building of banks participating in any new IFAD programme.</li> <li>• Bank Indonesia is one of the country's think tanks with enormous financial resources spent for research in agricultural profitability, market studies, financial viability and marketing studies etc. To partner with Bank Indonesia, which has branch offices in all provinces and in some capitals of <i>Kabupaten</i>, would become an asset for IFAD's interventions.</li> </ul>	
<b>Indonesia Financial Services Authority (OJK)</b>	<ul style="list-style-type: none"> <li>• Mandate is to promote and implement the regulation and supervision of financial institutions and provide consumer education and protection</li> <li>• Priority is to improve access to micro-finance</li> </ul>	<ul style="list-style-type: none"> <li>• Young institution in need to build up processes and tools</li> <li>• Skill gap in micro-finance sector</li> </ul>	<ul style="list-style-type: none"> <li>• Aims at setting up a centre of excellence for micro-finance and inclusion</li> <li>• 2011 Law on Microfinance provides legal framework</li> </ul>	<ul style="list-style-type: none"> <li>• Large numbers of unlicensed MFIs over total of 600,000</li> </ul>
<b>Ministry of Village</b>	<ul style="list-style-type: none"> <li>• Mandate for community empowerment and for setting up well managed Village Development Funds across the country</li> <li>• Experience of community empowerment through the <i>Kecamatan</i> Development Program.</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• New ministry still lacking clear strategies and modalities of operation</li> <li>• Decentralisation has broken the line of command from Jakarta to the BPMDs in the provinces and <i>kabupatens</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• Lead agency for the deploying Village Development Funds</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of competences at village level for planning and implementing large volumes of external resources</li> </ul>
<b>National Land Administration Agency</b>	<ul style="list-style-type: none"> <li>• National Land Policy Framework recently formulated with <i>BAPPENAS</i>.</li> <li>• Presence in all <i>kabupatens</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• Slow and expensive process for conferring titles.</li> <li>• Capacity insufficient to meet demand.</li> <li>• Conflicts between formal titles and <i>adat</i> land use arrangements in areas with indigenous communities.</li> <li>• Needs to accept maps of traditional land ownership prepared in a participatory way and using modern mapping techniques.</li> </ul>	<ul style="list-style-type: none"> <li>• Following decentralisation, village administrations should be responsible for preparing land tenure maps.</li> <li>• Need to ensure that <i>adat</i> land use arrangements do not conflict with formal titles.</li> <li>• Individuals can apply for title.</li> </ul>	<ul style="list-style-type: none"> <li>• Land grabbing and conversion of farming land for industrial or construction purposes</li> </ul>
<b>Audit Board</b>	<ul style="list-style-type: none"> <li>• Internal Government Auditor.</li> <li>• Independent of other government agencies and decentralised.</li> <li>• Adequate competent staff and budget.</li> <li>• Audits government agencies and projects</li> </ul>	<ul style="list-style-type: none"> <li>• Outside review identified examples of poor quality work.</li> </ul>	<ul style="list-style-type: none"> <li>• Auditor for ongoing and planned IFAD projects.</li> <li>• Able to audit IFAD project accounts with the costs financed from their regular budget.</li> </ul>	<ul style="list-style-type: none"> <li>• Corruption has been a problem in some instances.</li> </ul>

Organisation	Strengths	Weaknesses	Opportunities	Threats
	financed by international agencies. <ul style="list-style-type: none"> <li>• Familiar with international auditing guidelines and the audit requirements of AsDB and World Bank financed projects.</li> <li>• Has received technical assistance from World Bank and AsDB.</li> </ul>			
<b>Provincial governments</b>	<ul style="list-style-type: none"> <li>• Committed to addressing provincial issues and priorities.</li> <li>• Wide powers and strong fiscal position for those with Special status (Aceh, Papua and West Papua).</li> <li>• Involved in participatory development through the <i>Kecamatan</i> Development Program (KDP).</li> </ul>	<ul style="list-style-type: none"> <li>• Poor outreach and limited capacity.</li> <li>• Unfamiliar with commercial development issues.</li> <li>• Reduced role due to decentralisation process.</li> <li>• Weak budgeting, planning, monitoring, knowledge management, procurement, administration, financial management, tax collection and communications.</li> <li>• Lack ability to raise revenue locally.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential to provide leadership in development of participatory processes and rural poverty reduction.</li> <li>• Can provide some technical and policy support to <i>kabupatens</i>.</li> <li>• Full management commitment to the principles of good governance necessary, including regular audits.</li> </ul>	
<b>Kabupaten Governments</b>	<ul style="list-style-type: none"> <li>• Elected by and legally responsible to communities.</li> <li>• Important development and administrative role following decentralisation.</li> <li>• Recipient of substantial government revenues.</li> <li>• Sub-national governments and local authorities and formal village institutions should play an important facilitating role in project coordination and to some extent project implementation.</li> <li>• Some have experience with the World Bank assisted KDP and other development initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>• Unfamiliar with commercial development issues and participatory development approaches.</li> <li>• Few independent sources of revenue.</li> <li>• Sub-optimal capacity and performance (old and new <i>kabupatens</i>), including weak financial management, lack of transparency, limited technical capacity, use of staff etc.</li> <li>• Agricultural extension services under-funded and under-organised.</li> <li>• Majority of expenditure routine rather than for development.</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunity to provide services that meet the needs of local communities.</li> <li>• Opportunity to develop programmes driven by community demands.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of attention to agriculture sector leading to underfunding and lack of organisation of extension services</li> </ul>
<b>Kecamatan offices</b>	<ul style="list-style-type: none"> <li>• Local knowledge.</li> <li>• Some have experience with the World Bank assisted KDP and other development initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of capacity and facilities especially in recently established <i>kecamatans</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities to support the village administrations and <i>BMKs</i>.</li> <li>• Requirements to support <i>BPPs</i>.</li> </ul>	

Organisation	Strengths	Weaknesses	Opportunities	Threats
<b>Service Providers</b>				
<b>Banks (Bank Rakyat Indonesia), Regional Development Banks and Rural Credit Banks)</b>	<ul style="list-style-type: none"> <li>• Offices throughout the major rural centres.</li> <li>• Good performance ratings.</li> <li>• Well supervised by Bank Indonesia.</li> <li>• State-owned <i>Bank Rakyat Indonesia</i>, the provincial development banks, <i>Bank Pembangunan Daerah</i> and the mainly private People's Credit Banks may form the formal part of financial services.</li> <li>• Savings and credit self-help organizations and semi-formal community-based and community-owned microfinance institutions, which are more or less developed in almost all parts of Indonesia.</li> </ul>	<ul style="list-style-type: none"> <li>• Risk averse to lending to the agriculture and rural areas.</li> <li>• Limited models to reduce their risk and transactions costs for lending to the small producer.</li> <li>• Lack of lending products designed for rural areas.</li> <li>• Low management skills and sustainability of savings and loan associations</li> <li>• Unlicensed MFIs with limited capacities and viability</li> </ul>	<ul style="list-style-type: none"> <li>• Potential exists for developing financial products suitable for rural areas.</li> <li>• Willing to increase their activities in rural areas.</li> <li>• Government has provided special targets to the banks to enhance lending to the agricultural, rural and small enterprise sector.</li> <li>• OJK mandated to strengthen microfinance sector</li> </ul>	
<b>Agribusiness organisations</b>	<ul style="list-style-type: none"> <li>• Good knowledge of local and export markets.</li> <li>• Many active in developing market linkages.</li> <li>• Competent management.</li> <li>• Access to finance.</li> <li>• The private sector plays an important role in particular in agro processing and as agriculture value chain.</li> </ul>	<ul style="list-style-type: none"> <li>• Most engagement with farmers is informal and non-transparent.</li> <li>• Export markets for most local commodities poorly developed.</li> <li>• Lack of processing activity in the more remote provinces.</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities to build on existing and potential export markets for high value local products.</li> <li>• Potential for some local processing of local products.</li> <li>• Potential to develop profitable links with farmers.</li> </ul>	
<b>International NGOs</b>	<ul style="list-style-type: none"> <li>• Providing humanitarian relief in response to natural and other disasters.</li> <li>• Some have experience in sustainable agriculture.</li> <li>• Capacity to deliver and evaluate many initiatives, and to respond to the real needs of communities through participatory processes, support and technical training.</li> <li>• Support capacity-building of local NGOs through partnership programmes.</li> </ul>	<ul style="list-style-type: none"> <li>• Few agencies with substantial development activities in many provinces especially in Eastern Indonesia.</li> <li>• Limited understanding of commercial development issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Build partnerships with existing organisations.</li> <li>• Develop interaction with provincial and district governments.</li> </ul>	
<b>Local NGOs, CSOs, service providers, universities</b>	<ul style="list-style-type: none"> <li>• Many organisations active, with different expertise, degree of community outreach and knowledge.</li> <li>• Some have well qualified and experienced personnel, strong grassroots base, advocacy skills and the cultural knowledge that is essential for successful grassroots development.</li> <li>• Important role in developing gender equity.</li> </ul>	<ul style="list-style-type: none"> <li>• Some are opportunistic commercial service providers without a commitment to supporting local communities and with few community development skills.</li> <li>• Limited technical and management capacity for multi-sector programmes.</li> <li>• Local NGOs often established by Government staff to supplement their incomes.</li> <li>• Only a small proportion of active NGOs present at <i>kecamatan</i> and village levels.</li> <li>• Reliant on funding from external agencies with activities often driven by</li> </ul>	<ul style="list-style-type: none"> <li>• Can help programme implementation but local expertise is needed at community level.</li> <li>• Community activities must continue long enough to be sustainable.</li> <li>• Communities that have benefitted from good NGO assistance desire longer-term engagements with outsiders to help their development.</li> <li>• Upgrading of skills is essential.</li> </ul>	

Organisation	Strengths	Weaknesses	Opportunities	Threats
		<p>the agenda of external agencies and unsustainable.</p> <ul style="list-style-type: none"> <li>• Lack of effective engagement with local government that could benefit local communities (e.g. to resolve key issues of resource rights and economic security).</li> </ul>		
<b>National Farmer Organisations</b>	<ul style="list-style-type: none"> <li>• Operate at <i>kabupaten</i> and <i>kecamatan</i> and village levels.</li> <li>• Represents leading farmers and agribusinesses.</li> <li>• Lobbies government on behalf of members through its close links with government agriculture department programmes.</li> </ul>	<ul style="list-style-type: none"> <li>• Often used as channel for government assistance.</li> <li>• Attention needs to be given to the transparency and accountability of activities.</li> <li>• Not present in all rural areas</li> </ul>	<ul style="list-style-type: none"> <li>• Possible roles in identifying trainers for Farmer Field Schools.</li> <li>• Can become IFAD's allies in policy advocacy</li> <li>• Start developing services to members in addition to political representations and hiring as service provider should be explored</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Target Group's Organisations</b>				
<b>Formal Village Institutions</b>	<ul style="list-style-type: none"> <li>• Increased role under decentralisation.</li> <li>• Enlightened and capable leadership is available in some communities.</li> </ul>	<ul style="list-style-type: none"> <li>• Weak capacity for inclusive decision-making and to undertake new responsibilities in the majority of communities.</li> <li>• Confusion of roles and responsibilities between past and new structures.</li> <li>• Without the involvement of the <i>adat</i> institutions in areas with indigenous communities the credibility of village institutions is limited.</li> <li>• Bottom up planning process now largely non-functional.</li> </ul>	<ul style="list-style-type: none"> <li>• Policy environment is favourable for establishing grassroots democratic decision-making processes.</li> <li>• Key role in developing self-management capacity and conflict resolution</li> <li>• Opportunity to embed agricultural extension capacity in the village.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of competences at village level for planning and implementing Village Development Fund</li> </ul>
<b>Farmers' Groups</b>	<ul style="list-style-type: none"> <li>• Traditional self-help groups present in most villages constitute good basis for developing farmers' groups</li> <li>• Successful models of cooperative and (still very incipient) farmer-owned limited liability companies</li> </ul>	<ul style="list-style-type: none"> <li>• Low skills and organisation</li> <li>• Lack of apex organisations and structuring up to national levels</li> <li>• Lack of recognition from public authorities</li> <li>• Lack of platforms where they can voice concerns and make proposals for improving agriculture environment</li> </ul>	<ul style="list-style-type: none"> <li>• Increased relevance and interest for farmers' cooperatives extending services to members</li> <li>• Increased interest of agribusiness to partner with farmers' organisations is an incentive to develop capable organisations</li> </ul>	<ul style="list-style-type: none"> <li>• Top-down approaches pushing for the creation of farmers' organisations are not conducive to sustainable and strong organisations</li> </ul>

## Key file 3: Complementary donor initiatives/partnership potential

Agency	Priority Sectors and Areas of Focus	Period of Country Strategy	Complementarities/Synergy Potential
Asian Development Bank	<b>Aquaculture Sector Development Programme (USD 200 million).</b> <b>TA facility on Food Security</b>	under Development	<ul style="list-style-type: none"> <li>• Cooperation on agriculture and food security</li> <li>• Cofinancing</li> <li>• Knowledge-Sharing</li> </ul>
World Bank	<b>Sustainable Management of Agricultural Research and Technology Dissemination (SMARTD)</b> (USD 80 million) The development objective is to improve the institutional capacity and performance of the Indonesian Agency for Agricultural Research and Development (IAARD) to develop and disseminate relevant and demand-driven innovative technologies, meeting the needs of producers and of the agri-food system. There are four components: (i) human resource development and management; (ii) improvement in research infrastructure and facilities; (iii) research management and policy support; and (iv) project management and monitoring and evaluation.	August 2012-September 2017	<ul style="list-style-type: none"> <li>• Cooperation between research and appropriate technology agency with micro, small and medium enterprises</li> <li>• Training on appropriate technology</li> <li>• Development of appropriate technology</li> </ul>
	<b>Coral Reef Rehabilitation and Management Program - Coral Triangle Initiative (COREMAP-CTI)</b> (USD 47.38 million) The objective is to institutionalize the COREMAP approach of a viable, decentralized and integrated framework for sustainable management of coral reef resources, associated eco-systems and bio-diversity for the welfare of the communities in seven selected districts of five provinces in the country. The project consists of the following components: 1) institutional strengthening for decentralized coral reef management; 2) development of ecosystem-based resources management; 3) strengthening sustainable marine-based economy; and 4) project management, coordination and learning.	February 2014-June 2019	<ul style="list-style-type: none"> <li>• Knowledge exchange with CCDP</li> <li>• Joint promotion of multi-stakeholders' platforms for policy advocacy</li> </ul>
IDB	<b>Micro-finance South-South Collaboration</b>	Under Development	<ul style="list-style-type: none"> <li>•</li> </ul>
AusAID	<b>Australia Indonesia Partnership for Rural Economic Development program</b> (\$112 million) AIP-Rural aims at increasing inclusive economic growth in five provinces in Eastern Indonesia by influencing how agricultural markets work for the poor. The program will help to reduce the number of Indonesians living in poverty, address constraints to rural income growth and improve food security and agricultural productivity. AIP-Rural is facilitating private sector-led investment in better agricultural practices and women's economic empowerment priorities. The program aims to increase the incomes of one million rural farmers by 30 per cent by 2022.	2011-2018	<ul style="list-style-type: none"> <li>• Cooperation and coordination on approaches and policy advocacy</li> </ul>
	<b>Empowering Indonesian Women for Poverty Reduction (\$60 million)</b> MAMPU aims to improve the lives of poor women through increasing women's access to jobs and removing workplace discrimination; improving women's access to government social protection programs; and improving conditions for women's overseas labour migration. It is also working to strengthen women's leadership for better maternal and reproductive health and to reduce violence against women. The program works with gender-interested organisations to analyse constraints, pilot solutions, and form coalitions with the government, parliament, media, and the private sector to advocate for positive change and increase women's voices in decision-making.	2012-2016	<ul style="list-style-type: none"> <li>• Collaboration and coordination on approaches and policy advocacy</li> </ul>

Agency	Priority Sectors and Areas of Focus	Period of Country Strategy	Complementarities/Synergy Potential
Canada	<b>Trade and Private Sector Assistance (\$12,550,000 DFTAD)</b> The project aims to facilitate trade and investment for small and medium-sized enterprises (SMEs) in Indonesia, with a focus on those owned and operated by women. Recognizing that SMEs are the drivers for poverty reduction and economic growth in Indonesia, the project will work with the Indonesian government, private sector organizations, and trade policy experts to address regulatory constraints related to Indonesian SME development and access to markets. The project will also provide targeted advisory services to develop commercial opportunities for promising Indonesian SMEs.	2014-08-14 — 2019-08-31	<ul style="list-style-type: none"> <li>Cooperation and coordination on approaches and policy advocacy</li> </ul>
	<b>Skills for Employment in Indonesia (\$5,000,000)</b> The project aims to increase productivity and strengthen industry competitiveness by building stronger linkages between polytechnic institutes and the private sector and by strengthening the capacity of selected polytechnic institutes to deliver high-quality programs that respond to employer needs in five key sectors: manufacturing, infrastructure, mining, agro-industry, and tourism.	June 2013 – December 2017	<ul style="list-style-type: none"> <li>Cooperation and coordination on approaches and policy advocacy</li> </ul>
	<b>Indonesia Agribusiness Development (\$10,000,000)</b> The project aims to reduce poverty among smallholder farmers by supporting the development of sustainable agribusiness (the business of agricultural production, including crop production, input supply, and marketing of agricultural products). The project aims to increase the incomes of smallholder farmers, increase investment in agriculture and rural communities, and increase demand for sustainably produced agricultural commodities. Project activities include: (i) developing business models for sustainable agricultural production, post-harvest handling and marketing; (ii) training and advising private sector buyers and input suppliers to train and provide services to smallholder farmers; (iii) training bank staff on new financial products for smallholders; (iv) training plantation staff on sustainable community investment; and (v) training consumer products firms about market opportunities of sustainable products.	March 2014 - December 2018	<ul style="list-style-type: none"> <li>Cooperation and coordination on approaches and policy advocacy</li> </ul>
FAO	<b>Agriculture New Country Strategy to be finalized by end of May 2016</b> <b>Fisheries</b>	Under Development	<ul style="list-style-type: none"> <li>Knowledge-sharing</li> <li>Advocacy</li> </ul>
WFP	Encourage consumption of balanced nutritious diets in partnership with public and private stakeholders.	2016-2020	<ul style="list-style-type: none"> <li>Knowledge-sharing</li> <li>Advocacy</li> </ul>

## Key file 4: Target group identification, priority issues and potential response

Typology	Poverty Levels and Causes	Coping Actions	Priority Needs	Support from Other Initiatives	COSOP Response
<b>Smallholder crop, livestock and fish farmers.</b>	<b>Moderate to severe</b> <ul style="list-style-type: none"> <li>Low education and limited technical and management skills</li> <li>Insecure land tenure leading to diminution and fragmentation of farms.</li> <li>Aging plantations and depleting soils.</li> <li>Low level of crop and livestock husbandry.</li> <li>Lack of rural and productive infrastructure.</li> <li>Low productivity of smallholder farming and artisanal fishing households.</li> <li>High post- production losses</li> <li>Lack of access to improved inputs and technology.</li> <li>Limited access to finance and inability to borrow from the formal financial sector.</li> <li>Inability to aggregate production to reduce transactions cost, negotiate effective prices or link with private sector.</li> <li>Limited access to markets.</li> <li>Moderate levels of land and marine degradation.</li> </ul>	<ul style="list-style-type: none"> <li>Use of unsustainable cultivation and land use practises to survive.</li> <li>Limited investment in improved technology and inputs.</li> <li>Sell or barter surplus production immediately after harvest.</li> <li>Use of informal and non-transparent business linkages.</li> <li>Borrow informal consumption credit at high cost.</li> <li>Engage in low productivity wage labour and migration to urban areas or overseas migration.</li> <li>Reduction in consumption, especially food.</li> <li>Help from neighbours and informal self-help groups</li> </ul>	<ul style="list-style-type: none"> <li>Organize smallholders into groups or cooperatives.</li> <li>Assistance to gain secure land tenure.</li> <li>Improved rural infrastructure (access roads, irrigation).</li> <li>Access to improved inputs, technology and finance to enhance agricultural production.</li> <li>Providing opportunities for collective bargaining, post-harvest storage and processing techniques.</li> <li>Assist in establishing links with the private sector in innovative arrangements.</li> <li>Access to business development skills, market information and job information</li> </ul>	<ul style="list-style-type: none"> <li>.While there are a large number of Government and donor supported programmes in the area of agriculture and fisheries development, the support to smallholder farmers in eastern Indonesia is limited and the outreach of the existing programmes is limited.</li> </ul>	<ul style="list-style-type: none"> <li>Support to farmers' organisations and farmer-owned ventures</li> <li>Promotion of business partnerships with small producers</li> <li>Financial education and access to financial services</li> <li>Access to adapted business development services</li> <li>Mitigation mechanism to reduce vulnerability and mitigate lack of collateral</li> </ul>
<b>Women, including women headed households.</b>	<b>Moderate to severe</b> <ul style="list-style-type: none"> <li>High degree of vulnerability</li> <li>High workloads compared to men.</li> <li>Low level of education and skills.</li> <li>Limited ownership of productive assets.</li> <li>Limited decision-making capacity.</li> <li>High degree of domestic violence and low health status.</li> </ul>	<ul style="list-style-type: none"> <li>Use of unsustainable cultivation and land use practises to survive.</li> <li>Limited investment in improved technology and inputs.</li> <li>Sell or barter surplus production immediately after harvest.</li> <li>Borrow informal consumption credit at high cost.</li> <li>Small-scale village processing.</li> <li>Reduction in consumption,</li> </ul>	<ul style="list-style-type: none"> <li>Organize smallholders into groups or cooperatives.</li> <li>Assistance to gain secure land tenure.</li> <li>Improved rural infrastructure (access roads, irrigation).</li> <li>Access to improved inputs, technology and finance to enhance agricultural production.</li> <li>Providing opportunities for collective bargaining, post-harvest storage and processing techniques.</li> <li>Assist in establishing links with the private sector in innovative</li> </ul>		<ul style="list-style-type: none"> <li>Gender Equality and Inclusion Strategy and actions mainstreamed in all projects</li> <li>Awareness on marital land rights and marital land registration</li> <li>Access to credit and mitigation for lack of collateral</li> </ul>



Typology	Poverty Levels and Causes	Coping Actions	Priority Needs	Support from Other Initiatives	COSOP Response
<b>Rural youth</b>	<ul style="list-style-type: none"> <li>Moderate</li> <li>Low access to BDS and credit</li> <li>Low access to market and business information</li> <li>Lack of attraction for traditional agriculture</li> <li>Limited practical relevance of agriculture vocational schools</li> </ul>	<p>especially food.</p> <ul style="list-style-type: none"> <li>Migration</li> <li>Migration</li> <li>Conducting small trade and small industry</li> <li>Borrow money from relatives, neighbour, friend, loan shark</li> <li>Informally employed by relatives, neighbour, or friend</li> <li></li> </ul>	<p>arrangements.</p> <ul style="list-style-type: none"> <li>Need credit</li> <li>Women and youth need access in poverty reduction programs</li> <li>Need friendly market integration</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of Social Works: Business Group (Kelompok Usaha Bersama/KUBE)</li> <li>AusAID: Australia Indonesia Partnership for Rural Economic Development Program, National Program for Community Empowerment</li> <li>Foreign Affairs, Trade and Development Canada: Indonesia Agribusiness Development</li> </ul>	<ul style="list-style-type: none"> <li>Improving youth skills for employability</li> <li>Improving the quality of apprenticeship of youth and women</li> <li>Promote youth and women entrepreneurship opportunities</li> <li>Improving quality of and access to the labour market information system</li> <li>Access to credit and mitigation for lack of collateral</li> <li>Mentoring master with poor youth and women through on the job training</li> <li>Cooperation between professional certification agency and master to certify poor youth and women</li> <li>Provincial and district government are encouraged and assisted to establish mentoring and quality assurance system</li> <li>Cooperation with vocational schools to educate poor students</li> </ul>
<b>Rural Micro, Small, and Medium Enterprises (MSME)</b>	<ul style="list-style-type: none"> <li>Moderate:</li> <li>Low access to credit scheme due to lack of financial collateral</li> <li>Low access to inputs and technology</li> <li>Low skills on production process</li> <li>Low access to market</li> </ul>	<ul style="list-style-type: none"> <li>Conducting small trade and small industry</li> <li>Lend money from relatives, neighbour, friend, loan shark</li> <li>Produce low performance product</li> <li>Trade the product around village or sub-district</li> </ul>	<ul style="list-style-type: none"> <li>Need credit for MSME</li> <li>Need access to production input</li> <li>Need friendly market integration</li> <li>Need access to latest appropriate technology</li> </ul>	<ul style="list-style-type: none"> <li>TNP2K: People Business Credit</li> <li>World Bank: Sustainable Management of Agricultural Research and Technology Dissemination (SMARTD)</li> <li>AusAID: Indonesia-Australia Partnership on Food Security in the Red Meat and Cattle Sector</li> <li>Foreign Affairs, Trade and Development Canada: Trade and Private Sector Assistance</li> </ul>	<ul style="list-style-type: none"> <li>Increase access to small business credit</li> <li>Cooperation between micro, small and medium enterprises and promotion of clusters</li> <li>Information systems for product marketing</li> <li>Access to credit and mitigation for lack of collateral</li> <li>Provide the credit scheme with a group basis</li> <li>Cooperation between research and appropriate technology agency with micro, small and medium enterprises</li> <li>Training on appropriate technologies</li> </ul>