



Investing in rural people

Lao People's Democratic Republic

Northern Smallholder Livestock Commercialization Project: Rural Financial Services Programme

Final project design report

Main report and appendices

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Contents

Currency equivalents	iii
Weights and measures	iii
Map of the Programme area	vi
Executive Summary	vii
Logical Framework	xvii
I. Strategic context and rationale	1
A. Country and rural development context	1
B. Rationale	7
II. Programme description	9
A. Programme area and target group	9
B. Development objective and impact indicators	12
C. Outcomes	12
D. Lessons learned and adherence to IFAD policies	19
III. Programme implementation	20
A. Approach	20
B. Organizational framework	22
C. Planning, M&E, learning and knowledge management	23
D. Financial management, procurement and governance	26
E. Supervision	28
F. Risk identification and mitigation	29
IV. Programme costs, financing, benefits and sustainability	29
A. Programme costs	29
B. Programme financing	31
C. Summary benefits and economic analysis	32
D. Environment classification	33

List of Tables

Table 1. NSLCP Provinces and districts	viii
Table 2. NSLCP Provinces and districts	9
Table 3 Programme Risk and Risk Mitigation Analysis	29
Table 4: Inflation rates (local and foreign)	30
Table 5: NSLCP-RFSP cost summary by components (in LAK 10,000 and USD 000')	30
Table 6: NSLCP-RFSP costs by expenditure account	31
Table 7: NSLCP-RFSP financing plan by components,	31
Table 8- Household Participation Assumptions	32
Table 9 - Indicative Returns and impact after financing	33

Appendices

Appendix 1:	Country and rural context background	35
Appendix 2:	Poverty, targeting and gender	69
Appendix 3:	Country performance and lessons learned	89
Appendix 4:	Detailed project description	95
Appendix 5:	Institutional aspects and implementation arrangements	127
Appendix 6:	Planning, M&E and learning and knowledge management	154
Appendix 7:	Financial management and disbursement arrangements	165
Appendix 8:	Procurement	179
Appendix 9:	Project cost and financing	185
Appendix 10:	Economic and Financial Analysis	209
Appendix 11:	Draft project implementation manual	233
Appendix 12:	Compliance with IFAD policies	235
Appendix 13:	Contents of the Project Life File	239

Currency equivalents

Currency Unit	=	Lao LAK (LAK)
USD1.0	=	LAK 8,100

Weights and measures

1 kilogram	=	1000 g
1 000 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres

Abbreviations and acronyms

ADB	Asian Development Bank
AFP	Access to Finance for the Poor
ARF	Agriculture Refinancing Facility
AWPB	Annual Work Plan and Budget
AFPRC	Agriculture and Forestry Policy Research Centre
APB	Agriculture Promotion Bank
BSD	Banking Supervision Department
CBFM	community-based forest management
CC	Climate change
CDD	Community driven development
CFA	Community force account
COSOP	Country Strategic Opportunities Component
DA	Designated Account
DAFO	District Agriculture and Forestry Office
DES	District Extension Service
DoALAM	Department of Agricultural Land Management
DAEC	Department of Agricultural Extension and Cooperatives
DLF	Department of Livestock and Fisheries
DIC	Department of Infrastructure and Construction
DICD	District Industry and Commerce Department
DoNRE	District Office of Natural Resources and Environment
DPI	Department of Planning and Investment (MAF)
DPWT	District Department of Public Works and Transport
DSA	Daily Subsistence Allowance
DTMFI	Deposit Taking Microfinance Organization
FAO	Food and Agriculture Organisation
FFS	Farmer Field School
FHH	Female Headed Households
FG	Farmers Groups
FIF	Fund for Inclusive Finance
FISD	Financial Institutions Supervision Department
FLG	Farmer Livestock Group
FNML	Southern Laos Food and Nutrition Security and Market Linkages Programme
GAFSP	Global Agriculture and Food Security Project
GALS	Gender Action Learning System
GAP	Gender Action Plan
GDP	Gross Domestic Product
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoL	Government of Lao Peoples Democratic Republic
GPAP	Governance and Public Administration Project
HACCP	Hazard Analysis and Critical Control Points
HDI	Human Development Index
HH	Households
HHM	Household Methodologies
IFC	International Finance Corporation
KfW	Kreditanstalt Für Wiederaufbau (German Development Bank)
KM	Knowledge Management
LAFF	Lao Access to Finance Facility
LAK	Lao Kip
LDP	Northern Region Sustainable Livelihoods through Livestock Development Project
LEA	Laos Extension for Agriculture
LF2F	Lead Farmer-to-farmer
LEAP	Laos Extension for Agriculture Project
LF	Lead Farmer

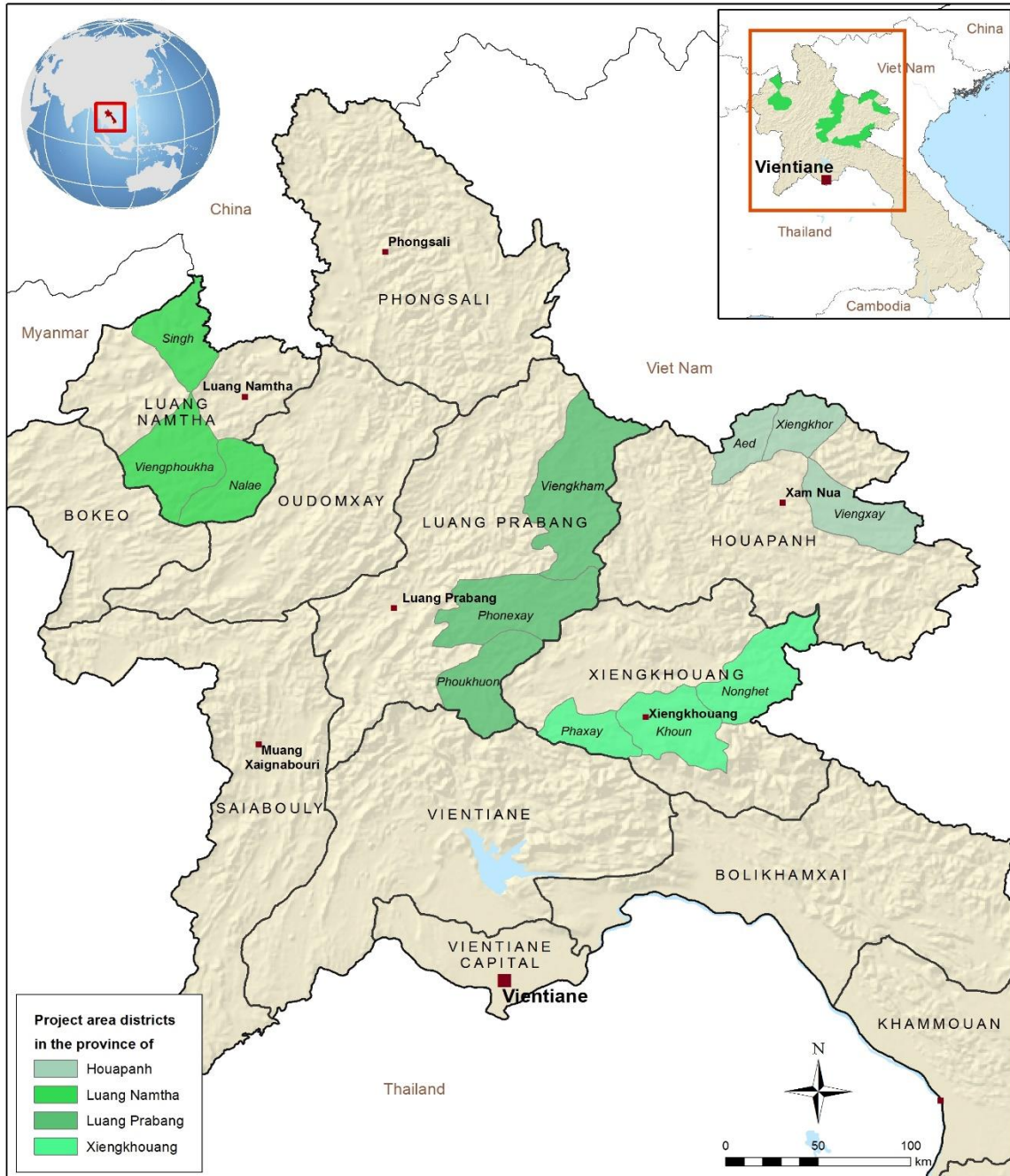
LFN	Lao Farmer network
LWU	Lao Women Union
MAF	Ministry of Agriculture and Forestry
MFI	Microfinance Institution
MoNRE	Ministry of Natural Resources and Environment
MoPWT	Ministry of Public Works and Transportation
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MIS	Management Information System
MTR	Mid-term Review
NAFC	Northern Agriculture and Forestry College
NAFRI	National Agriculture and Forestry Research Institute
NDTMFI	Non Deposit Taking Microfinance Institution
NGPES	National Growth and Poverty Eradication Programme
NPMO	National Project Management Office
NPSC	National Project Steering Committee
NRM	Natural resource management
NSEDP	National Socio-economic Development Plan
NTFP	Non-timber Forest Product
NSLCP-RFSP	Northern Smallholder Livestock Commercialization Project – Financial Services Programme
NSO	Network Support Organization
NUDP	Northern Uplands Development Project
PAFO	Province Agriculture and Forestry Office
PAM	Project Administration Manual
PAR	Participatory Action Research
PCR	Project Completion report
PIM	Programme Implementation Manual
PLUP	Participatory Land Use Plan
PPP	Public-private Partnership
PPSC	Provincial Project Steering Committee
PRF	Poverty Reduction Fund
PSEDCC	Provincial Socio-economic Development Coordination Committee
PY	Programme Year
RLIP	Rural Livelihoods Implementation Programme
SCU	Savings and Credit Union
SDC	Swiss Development Cooperation
SECAP	Social, Environmental and Climate. Assessment
SEDP	Socio-economic Development Plan
SNRMPEP	Sustainable Natural Resource Management & Productivity Enhancement Project
SNV	Stichting Nederlandse Vrijwilligers (Netherlands Development Organization)
SPS	Sanitary and Phytosanitary Measures
SSFSNP	Strategic Support for Food Security and Nutrition Project
SWG-ARD	Sector Working Group on Agriculture and Rural Development
SWGAB	Sector Working Group on Farmers and Agribusiness
SWGUp	Sector Working Group on Uplands
ToRs	Terms of Reference
TSC	Technical Service Centre
UNFCCC	United Nations Framework Convention on Climate Change
UNDP	United Nations Development Programme
USD	United States Dollar
UXO	Unexploded Ordnance
VAT	Value Added Tax
VC	Value Chain
VF	Village Fund
VLUFMC	a village land use and forest management committee
WA	Withdrawal Application
WASH	Water, sanitation and hygiene

Map of the Programme area

Lao People's Democratic Republic

Northern Smallholder Livestock Commercialization Project

Design report



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

Map compiled by IFAD | 20-01-15

Executive Summary¹

Background

1. In the past decade Laos has experienced rapid economic growth and poverty reduction. While the national poverty rate declined steadily by 40% over the last 15 years, 26% of the country's population still live below the national poverty line and 44% of children under five are still chronically undernourished. Poverty is predominantly rural, with high concentrations found in remote and mountainous areas adjacent to the north-eastern and eastern borders with Viet Nam.
2. Agriculture and natural resources accounted for 24.8% of GDP and over 70% of employment in 2014. More than 80% of the population depends on agriculture for their livelihood, while more than 50% of households in Lao PDR are subsistence farmers with annual incomes below USD 300. While national GDP growth was 7.6% in 2013, the agricultural sector grew by just 2.7% due to low productivity and inadequate links to opportunities arising from rapid growth elsewhere in the economy. The livestock subsector is an important source of income and store of wealth for rural smallholders, with 89% of smallholders owning one or more types of livestock – buffaloes, cattle, pigs, goats, poultry and, occasionally, other small livestock.
3. The expanding demand for livestock products in the Lao PDR and its neighbouring countries is generating new income opportunities for households in rural areas. Rural household capacity to benefit from the increasing market demand for livestock products, however, is still limited. Productivity of the traditional livestock production systems is low and livestock are still mainly kept as a store of wealth. Improving production methods to reduce costs and improve off-take is therefore necessary for rural livestock production systems to provide expanded and sustainable sources of income for smallholders.
4. IFAD supports the Government of Lao PDR (GoL) to implement its 7th National Socio-Economic Development Plan. Under the COSOP 2010-2016 IFAD has pursued the objectives of promoting economic growth, sustainable livelihoods, and food and nutrition security of poor rural people.
5. IFAD and ADB have been asked by the GoL to finance a project supporting the commercialization of livestock smallholders through the lateral scaling up of the recently completed Northern Region Sustainable Livelihoods through Livestock Development Project (LDP), co-financed by ADB, IFAD, SDC and JFPR from June 2007 to March 2014. LDP exposed about 13,000 farm smallholders to the potential advantages of more intensive, commercially oriented livestock practices. Overall, the LDP has initiated a long-run process of modernizing and commercializing smallholder livestock production, and, while the commencement of this process under the LDP has been constrained, it nonetheless provides a foundation for the Northern Smallholder Livestock Commercialization Project (NSLCP). Given the respective organization's comparative advantages, IFAD will support improving smallholder livelihoods through access to rural financial services and

¹ Mission composition: Mr Garry Smith, Team Leader; Mr Henning Pedersen, IFAD Country Programme Manager for Viet Nam and Lao PDR, Mr Geoff Dyce, Economist; Soulivanh Pattivong, IFAD Programme Officer; Dr Jorma Ruotsi, Rural Finance Specialist; Mr Syvongsay Changpitkoun, Rural Development Specialist/translator; and Mr Bandith Sisoukda, Credit Specialist/translator. Ms Enika Basu, IFAD Programme Officer, Monitoring and Evaluation Specialist joined the mission between 19 to 30 August, 2016. Mr Antonio Rota, Senior Technical Advisor, Livestock and Farming Systems, IFAD Technical Advisory Division joined the mission between 22-30 August, 2016. The mission was accompanied in the field by Mr Souphavan Keovilay, NSLCP Project Coordinator, Mr Phommachanh Sonevannachanping, Head of Rural Finance Unit, NSLCP, Dr Tienne Vannasouk, DDG of DAEC; and Dr Sengpraseut Rasbandith, Acting Head of Division, Department of Agriculture Extension and Cooperatives, MAF.

strengthened farmers' groups; while ADB will invest in critical infrastructure and technical support. The ADB part of the investment became operational in the first quarter of 2015.

Rationale

6. Demand for meat in Lao PDR is forecast to increase strongly over the next decade, in addition to increased export demand from neighbouring countries: China and Viet Nam. The GoL has set a target to increase livestock production from the current 210,000 tons per year to 365,000 tons by 2020. Available information suggests current exports are less than 10% of potential demand, while annual domestic demand is rising at 4.5% per annum. Currently, most of livestock trade with China and Viet Nam is informal, increasing the risk of disease spread and reduced government revenue.

7. Lao PDR is a member of the ASEAN Economic Community (AEC). AEC trade liberalization is expected to cover agricultural commodities including livestock products, and Lao PDR is well positioned to benefit from such emerging opportunities. Currently, however, Lao PDR does not produce enough livestock products to satisfy domestic demand, with livestock production potential hampered by the low level and quality of production and weak value chains. Key constraints include: (i) weak animal genetics and poor husbandry practices (especially animal nutrition); (ii) widespread disease incidence; (iii) lack of production scale; (iv) limited access to agricultural rural financial and support services; and (v) limited certified processing, storage and laboratory testing facilities. A shortage of qualified experts, technicians and meat processors in Lao PDR hampers the resolution of such issues. Given these constraints, and considering the strong and rising domestic demand for livestock products, including for traditional varieties, and the relatively high domestic meat prices, Lao PDR is best to pursue a strategy of strengthening smallholder production to meet domestic demand, which is considerable.

8. The rural financial services component of the LDP was subsidised and unsustainable, nonetheless, the LDP showed a high unmet demand for rural financial services in the project districts. BoL registered microfinance institutions (MFI) are expanding in Lao PDR and are both lending to agriculture and providing financial management and brokerage services to the rapidly growing savings-financed Village Funds (VFs). Private banks, however, are not yet significant agriculture sector financiers. In this environment, the best short-term strategy is to deliver NSLCP livestock credit at market terms to targeted and capacitated NSLCP beneficiaries, while developing a longer-term strategy for: (i) enabling technical service providers and farmers to plan profitable investments; (ii) building village funds into sustainable financial institutions able to meet local short-term rural financial services requirements; and (ii) improving the incentive structure for private banks and MFIs to provide medium to long term agricultural credit.

9. **Programme Area.** The Programme will be primarily implemented in 12 districts and approximately 200 villages in Houaphan, Luang Namtha, Luang Prabang and Xieng Khouang provinces in Northern Lao PDR as detailed in Table 1 below. The Agricultural Refinancing Fund (ARF) will service all districts in the Programme provinces and operate nationally by Programme end.

Table 1. NSLCP Provinces and districts

Houaphan	Luang Namtha	Luang Prabang	Xieng Khouang
<ul style="list-style-type: none"> • Viengxay • Xiengkhor • Aed 	<ul style="list-style-type: none"> • Singh • Viengphoukha • Nalae 	<ul style="list-style-type: none"> • Phoukhuon • Phonexay • Viengkham 	<ul style="list-style-type: none"> • Nonghet • Khoun • Phaxay

10. The poverty rates in these four Northern provinces range from 28% to 43% with the rural areas being the poorest. In each district, priority animal types will be selected for support. The rationale for selection is based on potential production capacity for support of market oriented livestock value chains.

11. **Target population and expected benefits.** In each district, the Programme will work with existing livestock production groups (LPGs), established by the LDP project. The LPGs, under Output 1, will be supported to absorb new member households and transform into smallholder

livestock production and marketing groups (SLPMGs). New SLPMGs will be formed where there are no existing LPGs. The Programme aims to work with a total of 300 SLPMGs in the 12 districts, extending livestock production and marketing support to about 5,400 households and their 32,000 household members. Over time, membership is likely to grow beyond these targets as SLPMGs become successful in meeting livestock market requirements. Successful examples will be showcased to scale out market-oriented livestock production to farmers outside the immediate Programme villages. Related community-based livestock infrastructure investments will benefit an estimated additional 10,000 livestock-owning households in the Programme area. Access to rural financial services through VFs will be improved for about 20,000 households, including households benefiting from the SLPMG support. Current evidence from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) VF support project suggests that about 30 percent of VF lending to members will finance agriculture production investments. The operations of the ARF (Output 5), which will be capitalised with Programme and Output 3 livestock credit line funds following the first round of funding, will provide refinancing to approved banks, MFIs and VFs, initially for lending in the project area, but, ultimately, at national level. By Programme-end, the ARF will be capitalised with at least USD 6.3 million. Land use titling is expected to benefit about 12,000 households

12. The initial SLPMG members will be from relatively more affluent and/or entrepreneurial households. The Programme will therefore need to tailor its overall technical and rural financial service support to ensure inclusion of marginalized and poor villagers in the Programme activities through the VFs. Further, the LDP demonstrated the important role that women and ethnic groups have in the development of Lao PDR livestock husbandry, and the NSLCP will further strengthen these groups through intensive training programmes (Output 1).

13. **Benefits.** It is estimated that the Programme will include a minimum of 200 villages and 20,000 poor smallholder households through access to livestock production technology and supporting livestock management infrastructure and services, and through improved rural financial services. The financial/economic benefit stream over the Programme life will include: (i) 5,400 households receiving Programme-managed SLPMG livestock credit; (ii) 4,050 borrowers from ARF-refinanced Programme NSOs/VFs investing in agriculture production; and (iii) an estimated 1,640 households and 40 agri-enterprises borrowing from prudentially tested MFIs and commercial banks refinanced through the ARF. Assuming a 75% investment success rate, the NSLCP-RFSP will increase the income of about 8,300 farming households to at least LAK 8 million per annum by Programme-end². It is further estimated that at least 7,000 households will be lifted out of poverty³. The benefit from non-agriculture VF lending has not been calculated, but will be substantial, at least 12,000 households will also benefit from land use title security, which can be used as loan security. Post-Programme benefits resulting from the successful establishment VFs and the nationally implemented ARF will be much larger. Programme Districts, villages and households not directly targeted by the NSLCP-RFSP will benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district. The NSLCP-RFSP will be implemented over a period of five years.

14. In summary benefits streams are foreseen from each of the elements of the rural finance strategy namely the Programme managed funds, the NSOs/VFs and the ARF. The latter two contribute to sustainable market based rural financial services.

15. **The Goal** of the NSLCP-Financial Services Programme (NSLCP-RFSP) is: “*Establish sustainable and scalable national rural financial and technical services that support the reduction of rural poverty and increased livestock productivity.*” The **Development Objective** is: “*Increased livestock production through expanded financial and technical services.*”

² This is recognised as an upper limit as there is some potential for a household to take both a SPLMG and a VF loan. SPLMG households are expected to be self-sustaining following their first loan so this considered, the overlap may not be that significant

³ As defined by the Lao PDR rural poverty income indicator, currently set at LAK 180,000/month/person

16. **Programme Outcomes.** The Programme will have two main outcomes: (i) Smallholder livestock producers adopt productive technology; and (ii) Rural households access sustainable and scalable rural financial services.

Outcome 1. Smallholder livestock producers adopt productive technology. This outcome will have two outputs.

Output 1. Smallholder livestock producer and marketing groups. This output involves two activities.

Activity 1. Farmer group formation. There are about 300 former LDP farmer groups or sub-groups in the 12 NSLCP districts, primarily involving either husband and wife or single female-headed households that have shown good progress in moving along the commercialization trajectory. The Programme would build the capacity of these groups to form SLPMGs with a view to progressing them from the basic production improvements achieved during the LDP to being able to: (i) access input supplies and services needed for commercial production; (ii) produce higher quality livestock that can be sold at provincial markets, and (iii) market as a producer group. The NSLCP district teams and corresponding DAFO/Department of Agriculture Extension and Cooperatives (DAEC) staff would work with SLPMG members to build their livestock production and farm financial management capacity with a view to providing participating farmers with appropriate skills to profitably lift livestock production and income. SLPMGs would be assisted to plan and implement co-financed technology transfer grants to support group member investments in technology, equipment and services that catalyse their planned household livestock production investments. IFAD will coordinate the preparation of a supporting SLPMG implementation manual during 2016, for implementation at Programme effectiveness.

17. *Activity 2: Farmer-to-farmer (F2F) extension.* Working with the Lao Farmer Network (LFN), the Project would identify lead farmers at kum ban level in the Programme area who would be further trained in animal husbandry at district level by DAFO/DAEC staff and subsequently linked to interested SLPMGs to mentor their livestock production programmes. SLPMGs will have access to NSLCP funded technology transfer grants to employ lead farmers for provision of livestock services. Where appropriate, lead farmers, with DAEC/DAFO support, would establish Farmer Field Schools (FFS) to support DAEC/DAFO-led learning and technology transfer on key livestock technologies and tools including farming as a business, animal husbandry and health management, animal breeding and nutrition, forage production, climate change adaptation, land use planning, etc.

Output 2. Technology development This output will have four activities

18. The National Agriculture and Forestry Research Institute (NAFRI) NSLCP Core Team, together with the DAEC NSLCP Core Team and the TSC network will support the implementation of this output.

19. *Activity 1: Livestock Market Studies.* The Programme will conduct two livestock market studies including an initial evaluation of livestock marketing within the Programme provinces and, before Programme mid-term review, an analysis of the national livestock market, including potential for value chain development and livestock and livestock product export. The initial provincial livestock market analysis will be used to support the updating of livestock production and market policy and strategies in Programme provinces.

20. *Activity 2: Forage production.* Many farmers in the Programme area have already developed forage areas, primarily using grass species, which, while providing adequate carbohydrates, lack the protein required for efficient livestock production. A range of improved grasses and, particularly, legume varieties including tree legumes, are suited to the agri-ecological environments in the Programme area and would lift livestock productivity. The inclusion of leguminous forages in upland farming systems carries the additional benefit of reducing the nutrient "mining" impact of traditional cropping systems. To ensure quick impact and longer term sustainability, forage programmes require an ample seed supply. The Programme would, with NAFRI/DAEC support, develop selected leguminous forages as a profitable seed crop, for subsequent free distribution by the Programme of

farmer-produced seed in small amounts to new household, while also promoting the purchase and distribution of grass splits to support the vegetative development of productive forage grasses. This activity will focus on low labour input forage technologies that integrate into local farming systems and will be aligned with the Strategic Support for Food Security and Nutrition Project (SSFSNP) forage development activities in Houaphan and Xieng Khouang provinces.

21. *Activity 3: Animal breeding.* Most livestock in the Programme area are indigenous species with relatively low growth rates and final body weights. They do, however, carry the benefits of local adaptation and relatively high fecundity. As animal husbandry skills improve, the Programme would, through various combinations of SLPNG co-financed technology transfer grants and livestock credit access, enable SLPNG members interested to become livestock breeding households to procure improved sires and sell breeding services to villagers. This would include training participating households to deliver fresh semen artificial insemination services as implemented in neighbouring countries.

Activity 4: Land use planning and allocation. The Programme will, with Provincial and District Natural Resource and Environment Department (PONRE/DoNRE) support, enable SLPNG member's villages to prepare or update their agri-ecological zoning and land management plans in order to plan and prioritize activities in agriculture and natural resource management within their boundaries. This will be important for designating resources that need to be protected such as water sources and where the animals will be concentrated, as well as identify suitable land for supporting communal livestock production including planting forage and animal housing. Where land use right tenure has not yet been allocated the project will, in partnership with GoL and other interested donors, support participatory systematic adjudication and individual and community land use titling.

Outcome 2. Rural households access sustainable and scalable rural finance services

22. The Programme proposes a sequential, three-pronged approach to developing rural financial services both in the NSLCP area and at national level. The three outputs under this Outcome includes: (i) financial services to NSLCP SLPNG beneficiaries; (ii) networked village funds in NSLCP districts; and (iii) a national ARF.

Output 3. Financial services to NSLCP beneficiaries

23. The National Project Management Office (NPMO), with the support of NSLCP district administrations, is in the process of recovering outstanding LDP loans, which total approximately LAK 20.66 billion (USD 2.58 million). It is expected that this process, when combined with LDP cash reserves, will result in about LAK 19 billion (USD 2.3 million) being available in the near future for on-lending to the 5,400 NSLCP targeted households. The IFAD highly concessional loan will capitalise these former LDP VLF funds with an additional LAK 16 billion (USD 2 million). IFAD recognises that this form of project driven credit is not a desirable approach to developing sustainable rural financial services. Given the centrality of SLPNG member's early access to livestock credit to NSLCP success, however, and IFAD's delayed entry into the NSLCP, IFAD sees no alternative to supporting this approach in the short term, lending for viable livestock investments through amortized loans at market rates (13%).

24. To support livestock credit delivery, the NSLCP-RFSP will recruit an international microfinance advisor, partnered by national rural finance experts to finalise the re-design of the NSLCP livestock credit scheme and to empower District Lao Women's Unions (LWU) to responsibly manage livestock development credit to SLPNG members. This will be a time bound activity, with the capital being redirected to the planned ARF (see Output 6) after the first round of LWU-managed lending to the 5,400 targeted SLPNG beneficiaries.

25. In supporting Programme beneficiaries to develop investments in commercial livestock production, the Programme will also assist farmers in groups and at village and kum ban level to plan

for the development, on a cost-sharing grant basis, of livestock production and marketing technology, community-based infrastructure and advisory services (see Outputs 1 and 2) that will raise productivity and better link communities to markets. SLPMG livestock credit and grant beneficiaries will contribute through the construction of suitable animal housing and the establishment of an appropriate forage area.

Output 4. Networked village funds in NSLCP districts

26. The BoL, with GIZ support, is establishing Network Support Organizations (NSO) at provincial level to facilitate the extraordinary growth of savings-driven VFs in Lao PDR, which, in many cases, are already providing sustainable financial services in their communities. The NSOs, which, at present, are BoL-registered non-deposit taking MFIs, are owned primarily by the VFs they service and provide financial management support and liquidity brokerage services for their member VFs. Most NSOs become self-financing within four to five years of establishment. There is good evidence from existing NSOs that farmers are using village funds to finance agricultural investments, including for livestock production.

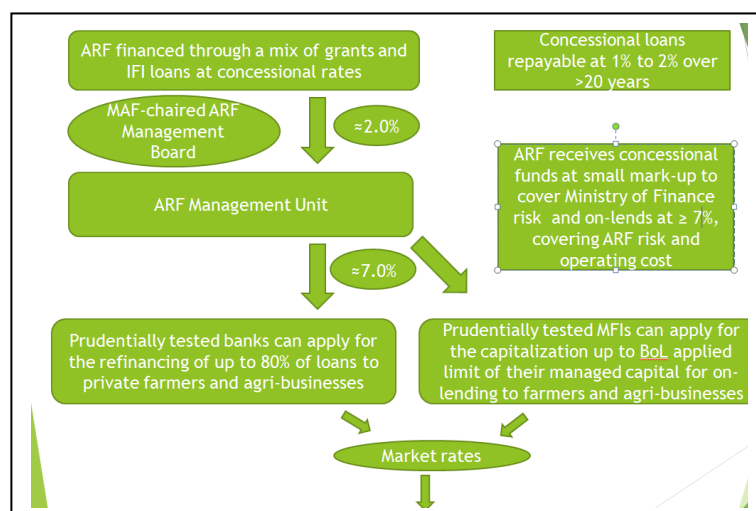
27. The IFAD project, working in partnership with the BoL and GIZ⁴, would support the development of at least 200 VFs and associated NSOs, including around 20,000 client households with a view to increasing and diversifying farmer access to financial services. NSOs, being BoL-registered financial institutions are eligible to borrow externally to leverage the village funds they broker, further increasing the village credit pool. VFs can also directly leverage their savings up to the value of 30% of their loan portfolio. This external option to expand rural finance delivery for agriculture and rural development lending will be supported through the national ARF detailed in Outcome 5.

Output 5. National Agriculture Refinancing Facility

28. While the initial focus of the Programme will be on supporting the NSLCP livestock credit programme and the emergence of NSO-networked VFs in Programme districts and provinces, in the medium-term, the Programme will assist GoL to establish a national ARF (see diagram below).

29. It is proposed that this facility be sited in the BoL, which will establish a small, self-financed ARF management unit, financed through a mark-up on the funds it disburses. The ARF will be managed by a Board, chaired by the Minister of MAF or his/her representative, with the MoF providing the vice chairperson. The Board will set the ARF refinancing policy based on MAF's National Agricultural Development Strategy.

30. The ARF would receive funding from existing grant funds held by the MAF, as well as from the Programme, and from new credit lines from International Financial Institutions (IFI). The ARF would apply those funds to refinancing a portion of the lending made by prudentially-approved commercial banks and MFIs to targeted agriculture sectors, in line with the national agriculture development strategy, at rates that significantly increase lending



institution margins and therefore reduce their credit risk. Registered MFIs, and mature VFs through their NSOs, would be eligible for block loans based on their BoL-approved rural development and agricultural investment strategies. Prudentially tested commercial banks could have up to 80% of their

⁴ Subject to the availability of funding

approved agriculture sector lending refinanced through the ARF, with a special emphasis on longer term investment loans for which the banks lack capital. As evidenced in a number of countries that have adopted this structure, discounted refinancing creates a strong incentive for financial institutions to lend to the agricultural sector. This, in turn, expands financial sector knowledge of agricultural and rural investment opportunities and builds their confidence in lending to the sector. Typically, ARF facilities can be withdrawn after about 10-15 years, by which time rural credit demand is being largely met by commercial financial services without this support mechanism.

31. It is proposed that the ARF be planned, with substantial technical assistance (TA) support by the Programme, during the first project year (PY) and starts its financing operations in the second PY. It would be initially capitalised by a mix of IFAD highly concessional loan and MAF grant funds and be piloted to support commercial bank and MFI lending to larger-scale animal production and related agribusiness investments in the NSLCP area. The ARF Guidelines will clearly state, both for banks and MFIs/VFs/NSOs, that all the refinanced capital must be used for rural development/agricultural loans only. If assessed by the Management Board as successful over its first 24 months of operation, the ARF would be further capitalised by the IFAD NSLCP project and by IFIs planning support to Lao PDR rural financial services and would be progressively scaled up to re-finance agricultural lending nationally.

32. **Programme Coordination.** A NPMO, has been established in the Department of Livestock and Fisheries (DLF). The NPMO is responsible for overall Programme planning, monitoring and reporting. It ensures coordination between various implementing agencies of the Programme and provides secretarial support to the inter-Ministerial Steering Committee. MAF's technical departments and organizations (DAEC, DLF, NAFRI and the Northern Agriculture and Forestry College (NAFC)) will be responsible for the design and quality control of those activities within their respective mandates. They, together with participating Province Agriculture and Forestry Office (PAFO) and District Agriculture and Forestry Office (DAFO) will prepare overall Programme work plans and detailed annual work plans and budgets (AWPB) for their areas of responsibility. A technical advisory committee chaired by the DLF will coordinate on technical matters. The DAEC, DLF and NAFRI will backstop the implementation activities of the PAFOs and DAFOs. The LWU, with TA support, will manage livestock credit delivery in Programme districts. BoL/GIZ will coordinate the development of VFs and supporting NSOs in Programme provinces and districts. The BoL will house the ARF Management Unit, which will be directed by a MAF-chaired Management Board.

33. **Programme costs.** Total NSLCP-RFSP costs are estimated at USD 19.7 million. IFAD funding will total USD 10.0 million (50.8%). The GoL contribution is estimated at USD 1.94million (9.8%), ADB contribution totals USD 2.9 million (14.7%) and GIZ contribution totals USD 1.9 million (9.4%). Carry over funds from the former LDP amount to USD 2.4 million (12.2%). Beneficiary contribution is estimated at USD 0.6 million (3.0%). There is also a USD 0.1 million ADB charge for interest during implementation. The NSLCP-RFSP forms a part of the larger IFAD-ADB financed NSLCP, which has a total value of USD 38.3 million, including USD 21 million of ADB financing.

34. **EIRR and NPV.** The overall NSLCP-RSFP economic internal rate of return (EIRR) is 11.9 per cent and compares well against 6% the current estimate of the social discount rate in Lao PDR.⁵ The estimated economic net present value (ENPV) at a 6 per cent discount rate is LAK 172,332 million (USD 21.3 million). The BCR of 2.16 indicating a return of approximately 2.16 dollars for every dollar invested. These results indicate that the NSLCP-RSFP investments yield a positive rate of return.

⁵ A social discount rate of 6% is assume consistent with recent WB estimates. Source: World Bank Lao PDR Development Report 2010 Natural Resource Management for Sustainable Development, Background Paper, Wealth and Sustainability. http://siteresources.worldbank.org/LAOPRDEXTN/Resources/293683-1301084874098/LDR2010_Wealth_and_Sustainability.pdf Accessed 06.04.16

EFA Summary Page

Table A - Illustrative Loan Models After Financing Cash Flow

Month	Cattle Model (LAK '000)			Pig Model (LAK '000)			Goat Model (LAK '000)		
	Income	Expenses	Net Income	Income	Expenses	Net Income	Income	Expenses	Net Income
1	3,600	2,017	1,583	1,645	783	862	2,310	1,100	1,210
2	-	2,017	(2,017)	-	783	(783)	-	1,100	(1,100)
3	-	2,017	(2,017)	-	783	(783)	-	1,100	(1,100)
4	19,350	21,907	(2,557)	2,880	3,449	(569)	4,000	4,457	(457)
5	-	2,508	(2,508)	-	637	(637)	-	374	(374)
6	-	2,497	(2,497)	-	803	(803)	-	370	(370)
7	-	2,488	(2,488)	-	949	(949)	-	367	(367)
8	29,514	2,478	27,036	-	1,074	(1,074)	-	364	(364)
9	-	21,907	(21,907)	11,603	1,179	10,425	21,938	360	21,577
10	-	2,410	(2,410)	-	3,449	(3,449)	-	4,457	(4,457)
11	-	2,400	(2,400)	-	622	(622)	-	354	(354)
12	-	2,391	(2,391)	-	789	(789)	-	350	(350)
13	29,514	2,380	27,134	-	935	(935)	-	347	(347)
14	-	-	-	-	1,060	(1,060)	-	344	(344)
15	-	-	-	11,603	1,164	10,439	21,938	340	21,597
NPV @ 12.8%			12,562			9,272			34,400

Discount rate equals the upper range APB interest rate

Table B - Programme Cost and Indicators for Log Frame

Financial Services Package Total Costs (USD m): 19.6		Base costs: 18.9		PMU 1
Beneficiaries	People 49,800	Households 8,300	SPLMG + VF loans + Other MFI	
Cost per beneficiary	USD 201 x person	USD 1,205 x HH	Participation rate: 75%	
Components and Cost (USD M)		Outcomes and Indicators		
A. Strengthened smallholder and other LVC actors and infrastructure	5.81	Smallholder livestock producers adopt productive technology	60% of 5,400 beneficiary livestock farming HHs are adopting at least 5 recommended technologies (disaggregated by gender and ethnic groups) 70% of SPLMG members sell heavier live animals: pigs: 55kg (baseline 2014: 45 kg); cattle: 225kg (baseline 2014: 200 kg)	
B. Improved access to sustainable LVC credit	13.25	Financial services to NSLCP beneficiaries Networked village funds in NSLCP districts National Agriculture Refinancing Facility	20,000 rural women and men in Programme area access financial services from VFs (disaggregated by gender) 5,400 NSLCP credits are disbursed 3 Provincial NSOs established to support village funds 200 new Village Funds established in NSLCP villages At least 4,000 ARF leveraged agriculture or rural development loans to smallholder farmers	

Assumes 6 persons per rural household

Table C – Financing Analysis Main Assumptions

Financial Parameters (selected)				
Outputs	Av. Weight gain	LAK	Inputs	Price
Cattle	65 kgs	36,000/kg LW	Cattle 3-years old	30,000/kg LW
Piglets *	47 kgs	24,000/kg LW	Piglets 6-weeks old	40,000/kg LW
Goats	20 kgs	40,000/kg LW	Goats 6-weeks old	40,000/kg LW

*Premium paid for local suckling piglets not reflected in fattened piglet price

Table D - Beneficiaries, Adoption Rates and Phasing

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6	PY 7
Incremental households							
Cattle	-	-	589	884	1,473	-	-
Pigs	-	-	393	589	982	-	-
Goats	-	-	98	147	245	-	-
Total	-	-	1,080	1,620	2,700	-	-
Cumulative households							
Cattle	-	-	589	1,473	2,945	2,945	2,945
Pigs	-	-	393	982	1,964	1,964	1,964
Goats	-	-	98	245	491	491	491
Total	-	-	1,080	2,700	5,400	5,400	5,400

Table E - Programme Economic Cash Flow (USD '000)

Programme Years (Selected)	Incremental benefits	Incremental costs	Net benefits
PY 1	-	28	(28)
PY 2	-	1,962	(1,962)
PY 3	(1,823)	2,738	(4,561)
PY 4	(3,082)	5,879	(8,961)
PY 5	(4,625)	5,453	(10,077)
PY 6	205	4,206	(4,000)
PY 7	757	2,584	(1,827)
PY 8	115	98	17
PY 9	(176)	98	(274)
PY 10	4,880	98	4,783
PY 15	11,716	98	11,618
PY 20	11,686	587	11,099
	ENPV @ 6%	USD '000	21,276
	ENPV @ 6%	LAK million	170,000
	EIRR	%	11.9%
	BCR	ratio	2.16

The economic analysis compares the Programme economic costs to the incremental economic returns

Graph F - Programme Economic Cash Flow

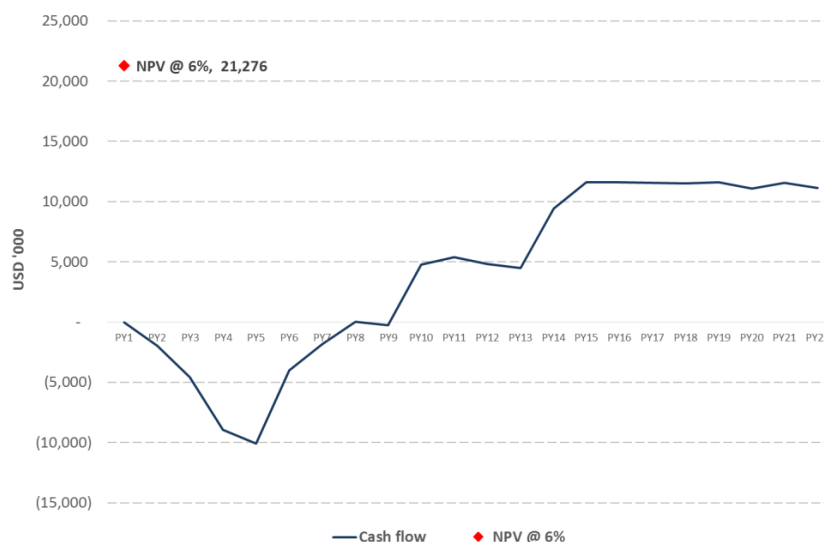


Table G - Sensitivity Analysis

Scenario			Link to Risk Matrix	EIRR	ENPV (USD '000)
Base Case				11.9%	21,276
<i>Δ% to Base Case</i>					
Programme Costs	Incr'l Benefits	Benefits delayed by			
+ 10%			Increase in the cost of inputs.	11.2%	19,438
+ 20%				10.5%	17,601
	- 20%		Reduced producer prices / demand. Group infrastructure investments are not directed to areas of highest production need.	10.2%	13,346
	- 40%			8.0%	5,416
+ 10%	- 10%		Combinations of the above	10.4%	15,473
+ 20%	- 20%			8.8%	9,671
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation.	11.1%	19,031
		2 years		10.4%	16,914
		3 years		9.8%	14,917
Base case	- 20%	1 year	Inadequate skills base amongst local service providers leads to delays and additional costs. NSO and village funds are slow to develop and/or mismanaged leading to inequitable treatment and reduced incentives for farmer groups and reduced access to credit.	8.9%	9,713
		2 years		8.3%	8,019
		3 years		7.8%	6,421
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	7.7%	6,182
Switching Values¹¹					
Costs	116%			6.0%	-
Benefits	-54%			6.0%	-

¹¹ Percent change in cost and/or benefit streams to obtain an EIRR of 6 percent, i.e., economic viability threshold.

Logical Framework

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	Baseline	YR1	Mid-Term	End Target	Source	Frequency	Responsibility	
<p>Goal:</p> <p>Establish sustainable and scalable national rural financial and technical services that support the reduction of rural poverty and increased livestock productivity</p>	<ul style="list-style-type: none"> 8,300 households enjoy at least 200% increase in annual livestock income 	LAK 3.4 million (2014)	LAK 4.0 million	LAK 6.0 million	LAK 8.0 million	RIMS Surveys LECS Survey Targeted Programme studies	Programme start, Mid-term and end Programme	NPMO	<ul style="list-style-type: none"> Provincial and district government policies and regulations support smallholder livestock commercialization;
	<ul style="list-style-type: none"> At Programme end, 20,000 households obtain incremental annual credit of at least LAK32 billion (USD 4 million) 	0	0	LAK 16 bn	LAK 32 bn	NSO and VF financial records	Programme start, Mid-term and end Programme	NPMO GIZ	
<p>Development Objective:</p> <p>Increased livestock production through expanded financial and technical services</p>	<ul style="list-style-type: none"> Livestock production in Programme area increased from 6,200 to 11,700 tons per year 	6,200	7,000	9,000	11,700	RIMS Surveys PAFO and DAFO annual reports	Programme start, Mid-term and end Programme	NPMO	<ul style="list-style-type: none"> Government policies and regulations continue to support an enabling environment for non-deposit taking MFIs to operate
<p>Outcome 1:</p> <p>Smallholder livestock producers adopt productive technology</p>	<ul style="list-style-type: none"> 75% of 8,300 beneficiary livestock farming HHS are adopting at least 5 recommended technologies (disaggregated by gender and ethnic groups) 	0	0	25%	60%	RIMS Surveys Targeted Programme studies	Programme start, Mid-term and end Programme	NPMO DAEC	<ul style="list-style-type: none"> Close collaboration between DAEC, NAFRI and NAC for technology testing and dissemination to livestock farmers; Private sector able and willing to

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	Baseline	YR1	Mid-Term	End Target	Source	Frequency	Responsibility	
	<ul style="list-style-type: none"> 70% of SLPMG members sell heavier live animals: pigs: 60 kg (baseline 2014: 45 kg); cattle: 275 kg (baseline 2014: 200 kg) 	0	10%	35%	70%	Programme M&E	Annual	NPMO	participate in animal health and husbandry, and product input supply.
Output 1 Smallholder livestock producer and marketing groups	<ul style="list-style-type: none"> 300 SLPMGs are formed (35% female committee members in SLPMG governance) 	0	60	300	300	Programme M&E records	Annual	NPMO	<ul style="list-style-type: none"> Smallholders are willing to join SLPMGs and modernize production practices
	<ul style="list-style-type: none"> At least 5,400 smallholders are trained in group development (at least 45% female) and have adopted business plans 	0	1,500	4,500	5,400	Programme M&E records	Annual	NPMO	
Output 2 Technology development	<ul style="list-style-type: none"> 8,300 livestock farmers are trained in key livestock husbandry and health management techniques 	0	1,500	4,500	8,300	Programme M&E	Annual	NPMO	Livestock farmers are willing to attend trainings provided through the project Land Policy is approved in 2016 and new Land Law is under implementation by mid-2018
	<ul style="list-style-type: none"> 12,000 households acquire agriculture land use rights. 	0	0	4000	12,000	MoNRE records Programme M&E	Annual	NPMO	

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	Baseline	YR1	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome 2 Rural households access sustainable and scalable rural financial services	▪ 20,000 households in Programme area access financial services from VFs (disaggregated by gender)*	0		10,000	20,000	Programme M&E MFI records	Annual	NPMO and service provider	▪ Government policies and regulations continue to support an enabling environment for MFIs to function
	▪ Approved banks, MFIs, NSOs and associated VFs have accessed USD 3.5 million of ARF refinancing	0		-	80%	MFI records	Annual PY3 onwards		
Output 3 Financial services to SLMPG members	▪ 5,400 NSLCP credits are disbursed	0	1,500	4,500	5,400	Livestock Fund reports LWU reports	Annual	NPMO, LWU and Service Provider	▪ LWU credit management capacity is enhanced ▪ Outstanding loans from VLF are timely and comprehensively recovered
Output 4 Networked village funds in NSLCP districts	▪ 200 new VFs established or strengthened in NSLCP villages	0		100	200	GIZ/AFP Report, NSCP Reports	Quarterly Annual PY3 onwards	GIZ, NPMO	▪ Government policies and regulations continue to support an enabling environment for non-deposit taking MFIs to operate
	▪ 3 provincial-level NSOs established to support VFs	0	0	3	3	BoL Reports		NPMO, GIZ and BoL	

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	Baseline	YR1	Mid-Term	End Target	Source	Frequency	Responsibility	
Output 5 National Agriculture Refinancing Facility	<ul style="list-style-type: none"> ▪ At least 4,000 ARF leveraged agriculture or rural development loans to smallholder farmers 	0	0	2,000	4,000	RIMS Survey BoL/MoF	Annual from PY3 onwards	NPMO and BoL/MoF	<ul style="list-style-type: none"> ▪ Close collaboration between MAF, MOF and BOL to establish regulatory and management structure of the NARF ▪ Outstanding loans from NSLCP credit funds are timely recovered and redirected to NARF

I. Strategic context and rationale

A. Country and rural development context

1. Over the last two decades, the Lao PDR economy has experienced an average annual growth rate of 7%, sustained by macroeconomic liberalisation, market-based reforms and large flows of foreign direct investment, mainly into natural resource-based industries (mining and hydroelectricity) and agriculture. High growth has resulted in a steady decline of the national poverty index, which dropped from 46% of the population in the mid-1990s to 23 per cent in 2015. The poorest groups in the lowlands are those who have been resettled from mountain regions. In terms of the UNDP multi-dimensional poverty index, 36.8 per cent of the population were multi-dimensionally poor in 2011/12, while an additional 18.5 per cent were near multidimensional poverty. The intensity of deprivation in Lao PDR which is the average of deprivation scores experienced by people in multidimensional poverty, was 50.5 per cent. Improved education and health have contributed to increased human development, which grew by an annual average of 1.57% since 1980. The Lao PDR's HDI value for 2014 was 0.575 — which is in the medium human development category—positioning the country at 141 out of 188 countries and territories: This places Lao PDR below the average of 0.630 for countries in the medium human development group and below the average of 0.710 for countries in East Asia and the Pacific. From East Asia and the Pacific, countries which are close to Lao PDR in 2014 HDI rank and to some extent in population size are Papua New Guinea and Cambodia, which have HDIs ranked 158 and 143 respectively. The Lao PDR's achievements in reducing poverty and improving human development indicators have happened against a challenging background comprising a multi-ethnic population scattered over a vast, often difficult to access terrain, and with a multitude of cultures and languages. Progress has, however, unevenly benefitted the population across the country. Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live.

2. **Agriculture and Agri-business.** While the GDP share of agriculture declined from 53 per cent to 24.8 per cent between 2000 and 2014, the primary sector remains the largest source of employment: over 70 per cent of the population still live from agriculture, indicating that the economic growth has created few jobs in other sectors. The agriculture sector's annual growth rate averaged almost 5 per cent at the end of the 1990s, but declined thereafter and has been erratic since 2005, varying from less than 1 per cent to just 2 per cent in 2012 and averaging just 0.8 per cent per annum between 2000-2012. Much of the growth is due to the expansion of cultivated surfaces to accommodate a rural workforce growing by an annual 2.5 per cent. Although yields are reported to increase across the country, overall sector productivity is still low as indicated by an income per capita in the farming sector that is less than half the national average, and a productivity that is estimated to be 4 to 10 times lower in agriculture than in other sectors. Most of the 650,000 farming households are engaged in subsistence and low productivity activities, producing just enough to support their food and non-food needs. Main factors affecting productivity include a low access to inputs, lack of appropriate technologies, limited access to finance and other support services including extension, limited access to markets for some products, climate risks, as well as farmer's risk aversion strategies. The export of agricultural products, notably paddy and live animals, is subject to re-occurring temporary bans, often imposed nationally and by individual provinces without notice, thereby disrupting trade relations and stifling productivity. In comparison, Cambodia's open trade policy has led to a 6 per cent annually increase in paddy production over the last five years, with 1.6 million tonnes exported in 2013, compared to only 0.1 million tonnes in 2008. While rice is the main staple food and accounts for 72 per cent of the total cultivated area, farmers grow a varied range of crops, with diversification constituting their main strategy to mitigate risks. Livestock offers a significant complement of food and cash income, along with non-timber forest resources in the upland areas. Agri-businesses are developing and growing rapidly. In the NSLCP-RFSP target areas most agri-businesses comprise small and medium scale Vietnamese, Chinese and to a lesser degree, Lao traders, some with processing facilities. These traders often work through middle-level intermediaries,

operating between farmers and traders. Contract farming is expanding rapidly in provinces with easy access to Chinese markets.

3. **The livestock sub-sector** and fisheries contribute about 40% of the country's agricultural GDP; growing some 5% per annum since 1998/99.⁶ About 29% of farm households keep buffalo and 38% own cattle; with the number of farm households with cattle and goats increasing by 43 and 69 percent respectively between 1999 and 2011; and, the number of households with buffalo and pigs contracting by 30 and 6 percent, respectively.⁷ Smallholder livestock production in Laos, which dominates the sector, is generally subsistence based, where ruminants are grazed extensively and pigs and poultry scavenge with supplementary feeding from kitchen waste. Farm size is small with livestock ownership averaging 4.6 cattle, 3.2 buffalo, 3.4 pigs and 18.9 chickens for households who raise livestock.⁸ Productivity is low with small daily live-weight gains, poor reproductive rates and high mortality. Based on low-input, low-output systems, livestock are primarily kept as a store of wealth, only to be sold when cash is required. Between 2000 to 2011, all livestock populations have increased, however large ruminant numbers have increased less (buffalo 14%, cattle 35%) with pigs and poultry populations roughly doubling over the eleven-year period (pigs 98%, poultry 101%). This disparity in growth is mostly due to the introduction of bought-in feeds for pigs and poultry, whereas the availability of grazing land for cattle and buffalo is finite (See Appendix 1 for details).

4. Although population and purchasing power is low, per capita consumption of livestock products has doubled over the last twenty years to about 20 kg/capita/year as incomes have increased, with beef and pork accounting for just over 80% of total meat consumption in Lao PDR. Based on the current livestock production estimate of 180,000 tons/year, Laos does not produce enough livestock products to satisfy domestic demand. Most meat imports into Laos originate from Thailand, currently amounting to about 85,000 tons per year. Domestic meat supply is also challenged by an increasing demand for live beef cattle export to Viet Nam and China. Given Lao PRD's high domestic meat price, the lack of export certified abattoirs or ancillary services, the increasing regional attention to controlling livestock movement to contain disease spread and the need to compete with established exporters from Australia, New Zealand and USA to gain a market share in those markets, smallholder livestock production in Lao PDR is best targeted at satisfying domestic market demand⁹.

5. **Challenges and trends.** The Lao PDR moved from a rice deficit situation in 1996 to surplus production in 2006. Accessibility to rice as well as to protein sources, however, is highly contingent on geography and on income levels. In 2007, it was estimated that only about one third of the rural population of Lao PDR was food secure. More worrying, it was found that malnutrition is as high today as it was ten years ago, with 44 per cent of children under the age of five in the rural areas suffering from stunting (chronic undernutrition). Factors of vulnerability around food and nutrition security include: (i) the loss of access to and declining availability of natural resources, including land and forest resources, due to the development of concessions, resettlement operations as part of the government's policy of village consolidation, and the expansion of cultivated surfaces; (ii) climatic changes, including extreme climatic events such as floods and droughts, which are perceived to become more frequent and severe, and increased temperature, rainfall variability and late onset of rainy season, leading to crop losses and reduced productivity from livestock due to declining fodder availability; (iii) declining soil fertility due to government restrictions on shifting cultivation, which is not compensated by improved agronomic practices; (iv) poor nutritional behaviour and absence of water sanitation and hygiene (WASH) facilities; (v) *sudden increase in food prices*, mostly due to seasonality but also to droughts and floods as well as evolution of world prices; and (vi) unexploded ordinance (UXOs), with an estimated 30 per cent of bombs of the 1963-73 war that did not explode and are still to be found in the forest, fallow land, or even cultivated areas.

⁶ *Lao Census of Agriculture 2010/11, Analysis of Selected Themes*. (2014). Vientiane: Ministry of Agriculture and Forestry, p. 4.

⁷ *Lao Census of Agriculture 2010/11*. (2012). Vientiane: Steering Committee for the Agricultural Census, Agricultural Census Office, Department of Planning, Ministry of Agriculture and Forestry, p. x, xv.

⁸ Agricultural Census, MAF 2011

⁹ See Appendix 4, para's 11-13 for further discussion on livestock markets and marketing.

6. **Ethnic People**¹⁰. Laos has the most ethnically diverse population on mainland Southeast Asia. The population includes about forty-nine ethnic groups and more than 240 subgroups. The majority of Laos's population is Lao which accounts for 55 per cent of the whole population, The Lao Government categorizes its many ethnic minorities into three broad groupings; Lao Loum (Lowland Lao), Lao Theung (Upland Lao), and Lao Soung (Highland Lao). The Lao Loum constitute the majority of the Lao population, at around 68 per cent, and live along the banks of the many rivers of Laos, in particular along the Mekong River. The Lao Loum consist of 12 ethnic groups; Lao, Lue, Lu, Phouan, Saek, Tai dam, Tai deng, Tai khao, Tai meuy, Tai neua, Tai Nyee, and Yang. Generally, they live in large groups located in lowland valley areas where it is convenient for communication, transportation, trading and planting rice and other agricultural production. In terms of economic development, Lao Loum are better-off than other groups in Laos. Buddhism is the main religion, practised by almost 90 per cent of the Lao Loum.

7. The Lao PDR 1991 Constitution refers to the "multi-ethnic Lao people" and the official terminology for describing the diverse population is "ethnic" groups. Article 8 of the Constitution proclaims that: "The State pursues the policy of promoting unity and equality among all ethnic groups. All ethnic groups have the rights to protect, preserve, and promote the fine customs and cultures of their own tribes and of the nation. All acts of creating division and discrimination among ethnic groups are forbidden.

8. **Climate Change**. Lao PDR is one of the most climate change (CC) vulnerable countries in the region¹¹. This is mainly due to its high dependence on climate-sensitive natural resources and low adaptive capacity. The key CC vulnerabilities in the Lao PDR are caused by flooding and droughts, with agriculture (and those who depend on it) the sector most vulnerable to CC. Vulnerability assessments show that households in most part of the country are already highly vulnerable to climate variability, with the situation likely to be more severe in the future. In Lao PDR reliable, long-term climate records do not exist¹². Analysis of the Lao climate from 1900 to 2002 show that minimum, mean, and maximum temperatures increased throughout the country, but particularly in the south and mainly in the last decade of the century. Minimum and mean temperatures rose by between 0.1 and 1.0°C, and maximum temperatures rose by 0.5 to 4.5°C. Local experience supported these data. There were also significant trends in rainfall patterns over the 20th century, but these trends have generally remained within the range of the highly variable rainfall patterns. The main change over the 20th century was a reduction in the rainfall in May, by between 4 and 50mm, and an increase in the rainfall in October, by between 4 and 20mm. This resulted in a slight delay in the wet season. In some parts of the country there was a slight increase in April rainfall, but with a trend for declining rainfall in May, rather than signalling an earlier start to the wet season it may constitute a greater risk of a false start to the wet season. Total rainfall tended to increase by up to 115mm in the lower north and upper central part of the country, and decrease by up to 200mm in the upper north, lower central, and south of the country.

9. In the Programme area, Xieng Khouang has a particularly high risk of floods, while Houaphan has a large proportion of villages at high risk of droughts. Projected changes in Lao's climate predict that (i) annual mean temperatures will continue to rise by 0.1-0.3°C per decade, and the number of days with temperatures above 33°C will increase; (ii) the number of cooler days with temperatures below 15°C will drop by two to three weeks per year; (iii) dry seasons will get longer; (iv) there will be more intense rainfall events, and more frequent and severe droughts and floods; and, (v) maximum monthly flows in the Mekong Basin will increase by 35 -41 per cent, while minimum monthly flows will drop by 17-24 per cent by 2100, further exacerbating flood and drought risks. All models, including

¹⁰ See Appendix 1, for a detailed description of ethnic people in the Programme area.

¹¹ Yusuf A. A. and Francisco, H. A., 2009, Climate Change Vulnerability Mapping for Southeast Asia, IDRCSIDA-EEPSEA-CIDA.

¹² Study on Potential Impacts of Climate Change on Land Use in the Lao PDR; Rod Lefroy, Laure Collet and Christian Grovermann. International Centre for Tropical Agriculture (Centro Internacional de Agricultura Tropical - CIAT) Land Management and Registration Project (LMRP), July 2010.

those focusing on regional patterns, predict an increase in magnitude and frequency of extreme events. (See Appendix 1 and the NSLCP-RFSP SECAP report for further details)

10. **Rural institutions.** While there are traditional forms of groups for self-help or sharing work, there are very few *farmers' organisations* providing services to members, except where they have been created and supported by development projects. Yet there are a few successful examples across the country of producers' groups that are offering a much more consistent set of services, have developed more elaborate structuring and are bringing significant benefits to their members, such as, for example, coffee producers' groups in Champasak and in Pakse. District Agriculture and Forestry Offices (DAFOs) are responsible for implementing agriculture policies and strategies and for delivering extension services to farmers. Access to such services, however, is limited by: (i) high staff turnover; (ii) limited outreach, particularly to the remote areas, due to scarce financial resources and lack of transport; (iii) a lack of skills to develop participatory approaches, to promote farmers' groups, and to facilitate market access; (iv) limited female staff and limited knowledge on gender equality; and, (v) in the uplands, insufficient command of ethnic language and culture. Other relevant departments such as District Industry and Commerce Office (DICO), responsible for promoting market linkages, and District Offices for Natural Resource and Environment Office (DoNREO) in charge of land management and titling, similarly lack staff and resources and have limited skills to deal with farmers' organisations or to implement participatory approaches. Modern inputs are rarely used because of their cost and of limited access to input dealers. Post-harvest management is minimal. Limited knowledge on quality requirements and product preparation and the unavailability of storage or processing infrastructure and of appropriate transport affect farmers' capacities to add value to their produce.

11. Most of the banks present in the target provinces supply financial services to the rural sector, however only Nayoby Bank (NB), a State-owned development bank, has branches in all of the target districts and provides short-term and medium-term loans to farmers and their groups at an interest rate between 5 and 9 per cent. Portfolio growth is restrained by cumbersome procedures that are not well adapted to agricultural activities and are the cause of excessive delays in releasing funds. MFIs do not yet adequately service rural areas, however, VFs are providing a rapidly growing, mostly savings-driven capital base for investment in local agriculture production and trade. The GIZ is working with the Bank of the Lao PDR (BoL) to improve the provision of sustainable financial services and to establish a nationwide financial literacy strategy. At provincial level, the Programme supports eight microfinance institutions that act as network support organisations (NSOs) for local VF networks. The NSOs provide their members with regular on-site technical assistance, including on-the-job coaching or training on bookkeeping and credit management and more efficient use of excess VF liquidity. The UNCDF Fund for Inclusive Finance (FIF), financed by various donors, also aims to improve the environment of microfinance and rural finance in Lao PDR and to strengthen the capacity of financial institutions to supply their clients with adequate products and services meeting beneficiaries' needs and requirements. (See Appendix 1 for details)

12. **MAF.** The main role of the MAF is to manage the development of agriculture and forestry for food security and for the production of commodities for processing industries, in line with the Strategy for Agriculture Development (2011-2020). It is responsible for providing strategic orientations to the sector, developing the policy, legal and regulatory framework, promoting investment and ensuring overall coordination. Implementation responsibilities are carried out at provincial and district levels, in line with the government's decentralisation policies. PAFOs are responsible for providing overall guidance and support to DAFOs, who are responsible for disseminating technical information, promoting innovation and organising input and technical service delivery.

13. **Policies for rural growth.** The GoL's overall long-term development goal is to graduate from the status of Least Developed Country by 2020. The National Socio-Economic Development Plan (NSED) and the National Growth and Poverty Eradication Strategy (NGPES) are the main policy documents that outline the country's strategy to eradicate poverty. Poverty reduction efforts are focused on the 72 poorest districts, which are to benefit from community-driven access-oriented rural

development. Key targets for the draft 8th NSEDP (2016-2020) include: (i) ensuring an annual GDP growth rate of at least 7.5%; (ii) GNI per capita higher than US 1,574 by 2018 and at or higher than USD 1,810 by 2021; (iii) total poverty reduced to 15% and household poverty rate to less than 7% by 2020; (iv) enhancing international trade and economic cooperation and achieving full international integration; (v) 70% forest cover by 2020; and (vi) livestock production increasing by 6% per annum and fisheries between 8% and 10% per annum, with livestock forming 30% of AGDP by 2020. MAF's *Strategy for Agricultural Development (2011-20)*, which was prepared with IFAD, ADB and other donors' support, aims at ensuring a successful transition from subsistence to sustainable, market-oriented smallholder agriculture. This should be achieved by: (i) transferring modern technologies for increased productivity, high quality production and value-added agri-processing for domestic and export markets; (ii) improving access to inputs and finance; (iii) promoting farmers' organisations and improving their linkages with private sector players; and (iv) value chain development and improved value chain governance so that smallholders and local SMEs can retain a higher share of the value added. Improved food security is a key objective, which is to be achieved through agriculture diversification and improved, climate-resilient agronomic practices. The sustainable management of natural resources is also among MAF's priorities. The strategy promotes an area-based development approach, to be grounded on region-specific strategies and integrated packages, in line with local comparative advantages and agri-ecological potential. With regard to *land*, the current framework focuses on community-based Participatory Land Use Planning (PLUP) as the main instrument to secure access to land, in a context of increasing pressure on land due to the development of concessions and leases granted to foreign companies. The draft of a new policy framework on land tenure security has recently been released for donor comment and will shortly be submitted to parliament for approval.

14. **Climate change policy.** The GoL ratified the UNFCCC in 1995 and the Kyoto Protocol in 2003. The country completed the Initial National Communication (INC) in 2000 and the Second National Communication (SNC) to the UNFCCC was completed in 2013. The Department of National Disaster Management and Climate Change is designated as the national focal point for the UNFCCC. The National Capacity Self-Assessment (NCSA) identifies the needs and assesses the capacity of the country in the implementation of the Rio conventions, which the Government has ratified (e.g., UN Convention on Biological Diversity, UN Framework Convention on Climate change, UN Convention on Combating Desertification).

15. The National Climate Change Strategy 2010 is aligned with the vision of sustainable development, poverty reduction, enhanced quality of the natural environment, and strengthened public health for all Lao people. The strategy centers on four goals; (i) reinforce the sustainable development goals of Lao PDR, including measures to achieve low-carbon economic growth; (ii) increase the resilience of key economic sectors and natural resources to climate change and its impacts; (iii) enhance cooperation and partnerships with national stakeholders and international partners to implement national development goals; and (iv) improve stakeholders' public awareness and understanding about climate change vulnerabilities and impacts. The strategy prioritizes adaptation and mitigation in key sectors such as (i) agriculture and food security; (ii) forestry and land use change; (iii) water resources; (iv) energy and transport industry; (v) urban development; and (vi) public health. The National Climate Change Strategy supports the long-term development goals and priorities of the draft 8th National Socio-Economic Development Plan (2016-2020), and the main thrust of addressing risks and vulnerabilities, which is part of the Agricultural Development Strategy (2011-2020); and promotes synergies with the eight Components of the Agricultural Master Plan (2011-2015), and the National Disaster Management Plan (2011-2015) to create a more disaster resilient nation.

16. **Land and forest policy allocation.** The National Growth and Poverty Eradication Strategy (2004) identifies community-based forest management (CBFM) as a high priority in its operational framework. The National Forest Strategy to the Year 2020 goes further, highlighting the need to enhance "village-based natural resource management for poverty eradication" as its second key policy direction, however, community-based forest management in Lao PDR lacks a strong legal

standing. The majority of communities in Lao PDR who rely most on forest resources have strong customary rights over forest lands and the rights to manage and utilize forest resources, however, they do not collectively own the land and cannot lease, transfer, sell, or use the land as collateral. Legislation during the early 1990s¹³ led to the development of the Land and Forest Allocation (LFA) Programme, which recognized the rights of communities and individuals to use and manage resources. While potentially positive for forest custodians, the changing legislation frequently led to the loss of access by villages for *swidden* agriculture and non-timber forest product (NTFP) usufruct rights. In some cases, the resulting lack of alternative livelihoods after LFA and the loss of food security have forced some upland villages to relocate. Another issue is that LFA governing bodies at the local level may not represent the interests of those who are dependent on forest and forest products. Despite these multiple constraints, there are a number of cases where communities and Provincial governments have collaborated effectively to establish sustainable CBFM programmes, often including agroforestry production. The government is undergoing a formal process of large-scale land reform, with an emphasis on enhancing the effectiveness of land policy implementation, and to enhance capacity for local land management. The Ministry of Natural Resources and Environment (MoNRE) is working closely with the Lao PDR National Assembly to develop the new Land Use Policy, which has been distributed for review and will be presented to the Parliament in October 2016.

17. **Financial Services.** With the exception of the APB and Nayoby Bank, lending for agriculture by commercial banks is limited. In 2014, the share of agricultural loans of the total bank portfolios was 9.5%, which was almost totally lent to larger agricultural ventures, not to small-scale producers. Most banks clearly lack experience and capacity to venture into rural and agricultural lending. The draft 8th 5-Year Development Plan calls for appropriate policies to encourage the banks to lend more for agricultural production and processing purposes, but provides no clear guidance or implementation strategies on how this could be achieved in practice, and, overall, is mostly silent on financial services policy. It targets the banking sector to provide 17-19% of the capital required for the implementation of the plan. It calls for raising banking standards to regional and international levels and promotes the application of financial and banking policies that support producers, manufacturers and entrepreneurs with access to finance on rationale basis, but gives little information as to how this might be achieved. It also states that “appropriate policies on loans to the farmers is needed by promoting establishment of production groups, collection groups and barns for storing rice, vegetables and livestock in order to reduce production cost, increase negotiation power in supplying and pricing, and to use it as collateral to access to financial resources from financial institutions,” but, again, provides no implementing strategy. It also commits the BoL to holding non-performing loans to <3% of a bank's portfolio.

18. Registered MFIs in Lao PDR are still largely located in the capital and larger towns and, while relatively weakly developed, are clearly growing quickly. The latest comprehensive data on MFIs is from the end of 2013, at which time there were 11 deposit taking MFIs (DTMFIs) in Lao PDR, with 78,000 members. Importantly, 95% of the members were from the Central region. There were also 24 non deposit taking MFIs (NTDMFIs), with 25,000 members and 18 Savings and Credit Unions (SCUs) with 28,000 members. The total members in all registered MFIs was 132,000. Since then, the numbers have increased in all three categories, with the total number of institutions today exceeding 100. At present, the key MFI clientele consists of salaried persons and traders. At the same time, in line with global trends, many MFIs are, for developmental reasons and often with donor support, expanding their operations to rural areas. As many of them have developed appropriate operational system, but lack lending capital, they are often willing to borrow externally to expand their operations. This opens potential opportunities for the planned NSLCP rural financial services programme to partner with MFIs, particularly through the services of the proposed ARF.

19. While the banks and MFIs do not yet effectively reach to the rural areas, informal financial service provision is very important in Lao PDR. The primary informal organisations offering financial services are VFs, also known as village banks. The VFs, which are widespread in Lao PDR, are

¹³ Prime Minister Decree #186 of 1994 and Instructions for land-forest allocation, management and use (No.822/AF) and Prime Minister's Decree on Land Titling, No. 88 of 3 June 2006

community-based operations that accept deposits from their members and issue loans from these funds to their members. The VFs do not employ permanent staff and can function with very low operational costs (see more below). The profits made from the VF operations are divided between members, based on their share of total savings. At the end of 2014, there were 4,815 VFs in the country with a total membership of 464,000, with an average 102 members per VF. Around 4,100 VFs were solely savings-based, while some 700 had received donor or government grants to finance their lending. The total portfolio of the VFs was LAK 627 billion (USD 78.5 million), with around 171,000 borrowers. The total savings were LAK 524 billion (USD 65.5 million), with the average savings per VF of LAK 127 million (USD 16,000).

20. **Socio-economic Development Planning.** The Ministry of Planning and Investment (MPI) guided Five-Year Provincial and District Socio-Economic Development Plans are strategic documents which list medium-term social and economic targets and goals for the provinces and districts. They integrate national development and sector policies and outline and prioritize local sector strategies for achieving those targets. Provincial plans take into consideration the five-year development plans for districts within the province. The Provincial Planning Department is responsible for the production of this plan in coordination with provincial sector departments and mass organization representatives. The plan is approved by the Provincial Governor. Five-Year District Development Plans take into consideration the Five-Year Kum Ban Plans, and are prepared by District Planning and Statistics Offices, in coordination with district sector officials and mass organization representatives. The Five-Year Plan is composed of the following sections: (i) Implementation work done in the past five years; (ii) guidelines, duties and targets for the next five years; (iii) measures for implementation and (iv) attached tables showing socio-economic data and planned projects. Annual development plans are produced to implement and monitor the delivery of Provincial and District Five-Year Plans. They include detailed information on the status of projects and other development activities and aim to integrate national policies with local needs and priorities. Annual Development Plans consist of the following sections: (i) review of implementation activities during the past year; (ii) development plan for the current year; and (iii) attached tables showing socio-economic information and Provincial Investment Component (PIP) projects in the areas. Key targets for the 8th National SEDP are described in para. 13.

B. Rationale

21. IFAD and ADB were asked by the GoL to finance a project supporting the commercialization of livestock smallholders through the lateral scaling up of the recently completed LDP, co-financed by ADB, IFAD, SDC and JFPR from June 2007 to March 2014. LDP exposed about 13,000 farm smallholders to the potential advantages of more intensive, commercially oriented livestock practices, leading into the NSLCP investment. The NSLCP design, which was prepared by the ADB in 2014 and became effective in 2015, included the allocation of an expected USD 5.0 million IFAD highly concessional loan and a USD 5.0 million IFAD grant. Subsequently, a supporting IFAD highly concessional loan of USD 10 million, with no grant element, was approved in early 2016. The change in the structure of the IFAD financing, together with a MAF request for IFAD to focus particularly on the development of sustainable and scalable rural financial services, has led to a substantial restructuring of the initial ADB investment proposition for the IFAD funds and the development of the IFAD project as a parallel investment. Fortunately, the ADB NSLCP, which will invest in critical livestock value chain infrastructure, technical support and staff capacity building, has considerable flexibility in its design and will, with IFAD's participation, be restructured during an early mid-term review in the second semester of 2017 to ensure the synergistic alignment of the two investments.

22. The present project should be seen in the optic of (i) consolidating the technical skills and capacity of beneficiaries involved under LDP in livestock production; and (ii) further upgrading their capacity through improved access to market taking advantage of the high demand (pull factor) for live livestock/livestock products from China, Vietnam and urban centres in Lao PDR.

23. Demand for meat in Lao PDR is forecast to increase strongly over the next decade, in addition to increased demand from neighbouring countries: China and Viet Nam. The GoL has set a target to increase livestock production from the current 210,000 tons per year to 365,000 tons by 2020. Available information suggests current exports are less than 10% of potential demand, while annual domestic demand is rising at 4.5% per annum. Presently, most of livestock trade with China and Viet Nam is informal, increasing the risk of disease spread, while reducing government revenue.

24. Lao PDR is a member of the ASEAN Economic Community (AEC). AEC trade liberalization is expected to cover agricultural commodities including livestock products, and Lao PDR is well positioned to benefit from such emerging opportunities¹⁴. Currently, however, Lao PDR does not produce enough livestock products to satisfy domestic demand. Most meat imports into Laos originate from Thailand. In 2012, 984,904 head of live poultry, 291,000 head of pig and 85,654 head of live cattle were imported, as well as 41,362 tons of poultry meat, 20,305 tons of beef and 1,762 tons of pork. The potential of livestock production to meet the growing domestic demand and increasing livestock export opportunities, is hampered by the low level and quality of production and weak value chains. Key constraints include: (i) weak animal genetics and poor husbandry practices; (ii) lack of production scale; (iii) limited access to agricultural rural financial and support services; and (iv) limited certified processing, storage and laboratory testing facilities. A shortage of qualified experts, technicians and meat processors in Lao PDR hampers the resolution of such issues. Given these constraints, and considering the strong and rising domestic demand for livestock products, including for traditional breed varieties, and the relatively high domestic meat prices, Lao PDR is best to pursue a strategy of strengthening smallholder commercial production to meet domestic demand, which is considerable.

25. Commercially-oriented smallholder livestock production implies a level of intensification and specialization of livestock production, but continues to build on the competitive advantages of smallholder farmers: producing cheap feed on-farm and utilizing available smallholder labor. Extensive testing of introduced forage varieties has identified what will grow successfully under smallholder conditions in Lao PDR, however, farmer uptake has been slow, in part because of villagers generally poor understanding of efficient animal nutrition, but also because of the unavailability of diverse forage seed and vegetative material. The forthcoming Global Agriculture and Food Security Program (GAFSP) financed SSFSNP will introduce a forage programme in two of the four NSLCP provinces designed to redress these shortcomings. The NSLCP provides the opportunity to expand this programme beyond vulnerable SSFSNP-targeted smallholder farmers, to more commercial smallholder applications. As forage/feed and livestock production are co-located, effluents from livestock production are recycled as fertilizer for feed production, and so have a value rather than being a liability as in peri-urban livestock production systems. More productive, farm-based livestock production also increases resource use efficiency and reduces greenhouse gas emissions per unit of meat produced when compared to the current low productivity livestock system.

26. The rural financial services component of the LDP was subsidised and unsustainable. The LDP, nonetheless, showed a high unmet demand for rural financial services in the Programme districts. BoL-registered microfinance institutions (MFI) are expanding in Laos and are both lending to agriculture, and providing financial management and brokerage services to the rapidly expanding savings-financed Village Funds (VF). Private banks, however, are not yet significant agriculture sector financiers. In this environment, the NLSCP-RFSP's preferred short-term strategy is to deliver NSLCP livestock credit at market terms, while developing a longer-term strategy for: (i) building village funds into sustainable financial institutions able to meet local short-term rural financial service requirements; and (ii) improving the incentive structure for private banks and MFIs to provide medium to long term agricultural rural financial services.

27. The Programme will not directly address malnutrition in the beneficiary population. The Programme acknowledges that Lao PDR continues to experience relatively high levels of malnutrition

¹⁴ However, some countries such as Indonesia and the Philippines have narrow inclusion lists, with a large number of agricultural and other products related to food security and self-sufficiency exempted.

despite strong economic growth over the last two decades. The Lao PDR National Nutrition Strategy to 2025 and Plan of Action 2016-2020 identifies “behavioural change” as a key initial step in addressing malnutrition, particularly in rural areas and amongst the country’s ethnic people. Most if not all Programme districts will, commencing in 2017, be covered by the WB financed Lao PDR Health Governance and Nutrition Development Project, which supports nutrition behavioural change. That behavioural change, when combined with improved household income under the NSLCP-RFSP, is expected to support improved family nutrition.

II. Programme description

A. Programme area and target group

28. **Programme Area.** The NSLCP-Rural Financial Services Programme (NSLCP-RFSP) will be primarily implemented in 12 districts and approximately 200 villages in Houaphan, Luang Namtha, Luang Prabang and Xieng Khouang provinces in Northern Laos as detailed in Table 2 below. The Agricultural Refinancing Fund (ARF) will eventually service all districts in the Programme provinces and, if proven sustainable in the context of this Programme, will be expanded post-Programme to provide national coverage.

Table 2. NSLCP Provinces and districts

Houaphan	Luang Namtha	Luang Prabang	Xieng Khouang
<ul style="list-style-type: none"> • Viengxay • Xiengkhor • Aed 	<ul style="list-style-type: none"> • Singh • Viengphoukha • Nalae 	<ul style="list-style-type: none"> • Phoukhuon • Phonexay • Viengkham 	<ul style="list-style-type: none"> • Nonghet • Khoun • Phaxay

29. The poverty rates in these four Northern provinces range from 28% to 43% with the rural areas being the poorest. In each district, priority animal types will be selected for support. The rationale for selection is based on potential production capacity for support of market oriented livestock value chains.

30. **Target population and expected benefits.** In each district, the Programme will work with new and existing livestock production groups (LPGs), the latter established by the LDP project. The majority of the group members will be minority people, primarily of Akha, Hmong, Khmu, Lue, Phong, and Phouthai ethnicity (See Appendix 1, paras. 22-29 for details). The LPGs will be supported to absorb new member households and transform into smallholder livestock production and marketing groups (SLPMGs). New SLPMGs will be formed where there are no existing LPGs. The Programme aims to work with a total of 300 SLPMGs in the 12 districts, extending the livestock production and marketing support to at least 5,400 households (including 1,600 poor households) and their estimated 32,400 members. Over time, membership is likely to grow beyond this target as SLPMGs become successful in producing and marketing livestock. Successful examples will be showcased to scale out market-oriented livestock production to farmers outside the immediate Programme area. Related community-based livestock infrastructure investments will benefit an estimated additional 10,000 households.

31. Although the Programme is located in poor areas, it is anticipated that the initial SLPMG members will be from the relatively more affluent and/or entrepreneurial households. The Programme will therefore need to tailor its technical and rural financial service support to ensure inclusion of marginalized and poor villagers through the NSO/VF development. Further, the LDP demonstrated the important role that women and ethnic groups have in the development of Laos livestock husbandry, and the NSLCP-RFSP will further strengthen these groups through intensive training programmes.

32. The NSLCP-RFSP will be implemented over a period of five years. It is estimated that the Programme will include a minimum of 200 villages and 20,000 smallholder households (including 5,000 poor households) through access to livestock production technology and supporting livestock

management infrastructure and services, and through improved rural financial services. The benefit stream during the Programme life assumes: (i) 5,400 households receiving Programme-managed SLPMG livestock credit; (ii) an estimated 4,050 borrowers from ARF-refinanced Programme NSOs/VFs investing in agriculture production; and (iii) an estimated 1,640 households and 40 agri-enterprises borrowing from prudentially tested MFIs and commercial banks refinanced through the ARF. Assuming a 75% investment success rate, the NSLCP-RFSP will increase the income of about 8,300 households (including 2,700 poor households) to at least LAK 8 million per annum by Programme-end¹⁵. The benefit from non-agriculture VF lending in rural areas has not been calculated, but will be substantial. Post-Programme benefits resulting from the successful establishment VFs and the nationally implemented ARF will be much larger. Programme Districts, villages and households not directly targeted by the NSLCP-RFSP will benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district. Programme Districts, villages and households not directly targeted by the NSLCP-RFSP will benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district. It is estimated that the Programme will lift at least 5,000 poor households out of poverty. Programme beneficiary numbers are further detailed in Appendix 2, Tables 3 and 4.

33. In summary benefits streams are foreseen from each of the elements of the rural finance strategy namely the Programme managed funds, the VF and the ARF. The latter two contribute to sustainable market based rural financial services.

34. **Gender Targeting and Equality Strategy**¹⁶. There has been a concerted effort at the highest levels to promote gender equality across Lao PDR. Key priorities of the *2009 Gender Mainstreaming Strategy for Agriculture and Forestry* were included in the *National Agriculture Strategy (2011-2015)*, and the *7th National Socio-Economic Development Plan (2011-2015)* also includes gender targets. The 2025 Strategy has the following gender targets:

- Decision making over planning activities of farming activities should involve at least 30% of women;
- Capacity building should have 35% of women as participants
- For ethnic minority women farmers their participation rate in projects and programmes should be 45%.

35. In collaboration with LWU, NSLCP/NSLCP-FSP will promote gender equality as well as women's participation in village development planning, SLPMGs, and market linkage programmes, assisting them to gain equal access to agricultural support and investment opportunities. Specific measures detailed in the Gender Action Plan (Appendix 2) include: (i) gender analysis of the farming systems in the Programme area conducted at the beginning of the Programme (ii) membership to SLPMG is household based and 30% of the participants in SLPMG management are women farmers with separate consultations to be held with men and women to identify their concerns, needs and preferences, ensuring women's voice will be taken into consideration and addressed; (iii) gender awareness-raising will be conducted at village level and amongst all Programme stakeholders at all administrative levels; (iv) all committee members (women and men) will be trained on group formation and capacity strengthening training in participatory decision-making and facilitation techniques, leadership skills, public speaking, confidence building; (v) ensuring that both male and female family members have access to group technical training and other capacity development activities, with a target of 40% women in mixed gender groups; (vi) integrating household livelihoods planning tools as part of business plan training of SLPMG members; (vii) developing the capacities of extension agents to include women, and, where appropriate, organising special sessions for women; including gender audits in annual farmer groups' capacity assessments; (viii) technical training materials will include

¹⁵ This is recognised as an upper limit as there is some potential for a household to take both a SPLMG and a VF loan. SPLMG households are expected to be self-sustaining following their first loan so this considered, the overlap may not be that significant

¹⁶ See also NSLCP Poverty reduction and social strategy note in the Project Life file

training needs and topics highlighted by women and extension training schedules will ensure that location and timing of delivery are convenient for women; (ix) supporting households, with participation of women, men and younger family members to develop individual household visions and analysis, preparing business plans and targets using household methodologies; (x) appoint a Gender specialist to the NSLCP NPMO and gender focal points at PAFO and DAFO coordination units to coordinate gender awareness trainings; (xi) disaggregating M&E data and analysis by gender; and (xiii) supporting the recruitment of women to ensure gender-balanced programme implementation teams at all levels. Additionally, NSLCP-FSP will support the LWU in building its capacity to implement the Programme's livestock credit scheme.

36. In supporting women's empowerment, the NSLCP-FSP will facilitate implementation of the *Household Methodologies* (HHMs) approach¹⁷ (see Appendix 2, Annex 3). HHMs will be an integral tool in the transformation of subsistence livestock farmers to commercial farmers, as this methodology will enable the household's disparate livelihood strategy to be streamlined into one coherent strategy, which will result in shared objectives at household level, business plans, and timeline for achievement of set targets. The implementation of the methodology will enhance the services offered by the NSLCP-RFSP in the following ways:

- *SLPMGs*: ensure that organizational goals are inclusive, address issues of power and gender, and strengthen mechanisms for dialogue;
- *livestock production*: improve an equitable distribution of workload, tasks and responsibilities;
- *land*: support sustainable land use and equitable access to land by different household members;
- *communal land use planning*: improve decision-making on use and management of natural resources at the community and household levels;
- *value-chain development*: facilitate dialogue and market dynamics for inclusive value-chains;
- *rural finance*: help household members understand impacts of decision-making on financial well-being of household; facilitate discussions about risk assessment and mitigation.

37. The *Gender Specialist* at NPCO will spearhead the integration of HHMs in SMLPG activities. There are various tools under HHMs that can be adapted to the context and the Programme's activities. The most conducive tool in the case of SMLPG will be the "household approach". The HHMs shall be integrated as part of business plan training of SLPMG members and introduced as a gender mainstreaming tool to complement technical training and skills development in livestock production and entrepreneurship. A service provider, with specific experience in implementing HHMs, will be contracted by NPCO to streamline implementation of the approach, pilot trainings of the Gender Specialist, kum ban focal points and pilot HHMs in one kum ban per province. A step-by-step implementation guideline will be developed in collaboration with the service provider.

38. The implementation of HHMs will include:

- awareness creation and initial community organization within the ambit of group strengthening activities of the SLMPGs;
- identification of opportunities for SLMPGs and individual livestock producing households, including production and marketing opportunities;
- identification of challenges and risks that might hinder the leveraging of opportunities;
- identification of the training needs for women and men, and the provision of links to relevant technical, business and management training;
- at the household level, development of visions and action plans for each enterprise and consolidation of these into one comprehensive plan.

¹⁷ https://www.ifad.org/topic/household_methodologies/overview/tags/knowledge_notes

B. Development objective and impact indicators

39. **The Goal** of the Programme is: “*Establish sustainable and scalable national rural financial and technical services that support the reduction of rural poverty and increased livestock productivity.* The indicators for measuring impact are: (i) 8,300 households enjoy at least 200% increase in annual livestock income; and (ii) at Programme end, 20,000 households obtain incremental annual credit of at least LAK32 billion (USD 4 million).

40. **The Programme Development Objective (PDO)** is: “*Increased livestock production through expanded financial and technical services.* The indicator for measuring PDO success is: Livestock production in Programme area increased from 6,200 to 11,700 tons per year.

C. Outcomes

41. **Programme Outcomes.** The Programme will have two main outcomes: (i) Smallholder livestock producers adopt productive technology; and (ii) Rural households access sustainable and scalable rural financial services.

42. Outcome 1. Smallholder producers adopt productive technology. **This Outcome will include two Outputs: Output 1 - Smallholder livestock producer and marketing groups; and Output 2 – Technology development.**

Output 1. Smallholder livestock producer and marketing groups. This output involves three activities.

43. *Activity 1. Farmer group formation and support.* There are about 300 former LDP farmer groups in the 12 NSLCP districts, primarily involving either husband and wife or single female-headed households, that have shown good progress in moving along the commercialization trajectory. In Programme villages where former LDP groups do not exist, new SLPNGs will be established. The Programme will build the capacity of these groups to form SLPNGs with a view to progressing them from the basic production improvements achieved during the LDP to being able to: (i) access input supplies and services needed for commercial production; (ii) produce higher quality livestock products that can be sold at provincial markets, and (iii) market as a producer group. The Programme district teams and corresponding DAFO/DAEC staff and LFs will work with SLPNG members to build their livestock production and farm financial management capacity with a view to providing participating farmers with appropriate skills to lift livestock production and profitability. Husbands and their spouses will both be SLPNG members. SLPNGs will be required to include at least 30% poor households, with women forming at least 30% of the SLPNG management group. SLPNGs will set an attendance quorum for every working meeting requiring that at least 45% of meeting attendees be women members.

44. SLPNG development is intricately linked to the access to livestock credit detailed in Output 3. The Programme support DAFOs/DAEC to build SLPNG solidarity, provide financial literacy/management training, support the LFN in developing LF2F services, particularly using female lead farmers (LF) (see Activity 2 below). The DAFOs/DAEC will, with technical assistance support and using the HHMs approach, work with SLPNG members at both household and group level to change the underlying social norms, attitudes, behaviours and systems causing inequalities in gender roles.

45. SLPNGs will be assisted to develop investment plans to support their application for group-secured NSLCP-RFSP livestock credit (see Output 3). SLPNG members will be trained at Kum Ban level in simple production planning and cost-benefit analysis after which they will be coached intensively to develop their own business plans including (i) a livestock upgrading and management work plan; (ii) cost-benefit analysis and (iii) financing plan. Production planning support will be rolled out to a minimum of 300 SLPNGs and 5,400 households between 2017-2019.

46. SLPNGs, or agricultural cooperatives or rural agricultural business households that successfully complete investment plans and access the NSLCP-RFSP livestock credit fund will be eligible for Programme grants. Grants of up to USD 10,000 for SLPNGs and cooperatives and

USD 2,000 for business households¹⁸ (including beneficiary contribution) will be available for community livestock production, value addition and marketing related investments in infrastructure, equipment and services on a cost sharing basis, with beneficiaries covering 20% of the total cost in-kind for related materials and equipment. Livestock technical services, which could form up to 30% of the total grant funding, will be fully funded by the Programme. Grants will only be awarded against a work plan and budget developed by the farmer group / cooperative / business household, based on simple Programme-prepared models. The plan must show financial and technical viability and sustainability of the investment. Member household of SLPMGs applying for a grant will need to have their forage area planted and livestock sheds constructed as appropriate for the proposed volume of livestock production.

47. Priority investments for these grants, which will be managed by DAFO staff, will consist of appropriate and affordable technologies and facilities that will improve the quality and market accessibility and acceptability of livestock and livestock products, and that are easily replicable by other households/communities in the locality. Acceptable budgetary items to be covered by the grant financing will include: (i) non-consumable materials such as equipment and machinery to establish technology improvement; and (ii) training and services from local providers such as LFs for agricultural technical training, marketing support, and business and investment planning support. Machinery and equipment investments could include, *inter alia*:

- maize processing or simple hay baling equipment to produce animal feed for members of a SLPMG;
- fencing of household and SLPMG forage areas;
- water distribution systems at SLPMG and individual household levels;
- animal holding pen for veterinary treatment at SLPMG level;
- animal holding pen and loading ramp at village or kum ban level.

48. *Activity 2: Farmer-to-farmer extension.* Farmer-led extension, including Farmer Field Schools (FFS), based on the principle of people-centred learning, can be effective in ethnic communities by enabling farmers to observe, analyse and try out new ideas on their own fields and in their own language. Working with the LFN, the Programme will identify LFs at kum ban level in the Programme area who will be further trained in animal husbandry at district level by DAFO/DAEC staff and subsequently linked to interested SLPMGs to mentor their livestock production programmes. LFs will be employed directly by SLPMGs using Programme grant funding for livestock services (see Output 1, Activity 1). Where appropriate, the Programme, using LFs, will establish FFS to support DAEC/DAFO-led learning and technology transfer on key livestock technologies and tools including farming as a business, group dynamics and management, animal husbandry and health management, animal breeding and nutrition, forage production, climate change adaptation, land use planning, etc.

Output 2. Technology development. This output will have four activities

49. The NAFRI NSLCP Core Team, together with the DAEC and NSLCP Core Teams will support the diversification and expansion of forage and animal genetics in the Programme area. Animal health is being addressed through a NSLCP supported village veterinary worker training programme.

50. *Activity 1: Livestock Market Studies.* The Programme will conduct two livestock market studies including an initial evaluation of livestock marketing within the Programme provinces and, before Programme mid-term review, an analysis of the national livestock market, including potential for value chain development and livestock and livestock product export. The initial provincial livestock market analysis will be used to support the updating of livestock production and market policy and strategies in Programme provinces. In particular, it will focus on provincial policies, legislation and fees concerning livestock movement (internal, cross-provincial and export) and market sales. The study will also examine the application of meat inspection at provincial level and sanitary and animal welfare

¹⁸ These grants will be financed by the ADB loan.

conditions in relation to livestock slaughter. The second nationally-focused study, the specification of which will be developed during Programme implementation, will most likely be done in collaboration with other livestock investments in Lao PDR, notably the New Zealand Assistance Programme (NZAP) supported Lao PDR Beef Industry and Veterinary Training Project.

51. *Activity 2: Forage production.* Many farmers in the Programme area have already developed forage crops, primarily using grass species including guinea grass (*Megathyrsus maximus*), mulato II (B. ruziziensis x B. decumbens x B. brizantha), napier grass (*Pennisetum purpureum*) and ruzizi grass (*Brachieria ruziziensis*). While these grasses are reasonable providers of carbohydrates, they lack the protein required for efficient livestock production. Additional grass and, particularly, legume varieties including tree legumes, are suited to the agri-ecological environments in the Programme area and will lift livestock productivity. The inclusion of leguminous forages in upland farming systems carries the additional benefit of reducing the nutrient “mining” impact of traditional cropping systems. To ensure quick impact and longer term sustainability, forage programmes require an ample seed supply. The Programme will, with NAFRI/DAEC support, develop selected leguminous forages as a very profitable seed crop, while also promoting the purchase and distribution of grass splits to support the vegetative development of productive forage grasses. Using a DAFO-led approach of Programme procurement of leguminous forage seed and grass splits at competitive prices (but well below import cost) and free distribution of small quantities of seed and splits to interested farmers, the Programme will quickly establish a demand for low labour input forage technologies that integrate into local farming systems, providing benefits in terms of animal nutrition, improved soil fertility and stability and reduced labour. In 2017, the SSFSNP will initiate forage development activities in Houaphan and Xieng Khouang provinces that will be expanded to support NSLCP districts in those provinces and to Luang Namtha and Luang Prabang.

52. Short-term national and international forage specialists linked to the GAFSP-financed SSFSNP will conduct an initial assessment of forage production opportunities in the Programme districts, specify initial seed requirements, provide technical awareness training for PAFO, DAFO and DAEC staff, including a domestic study tour to inspect national forage programs. The International Centre for Tropical Agriculture representation in Laos has expressed interest in “backstopping” such a programme.

53. The DAEC, in collaboration with Programme DAFOs and the national consultant will adapt existing forage manuals to meet Programme requirements, raise awareness amongst farming communities and identify farm households and farmer groups prepared to establish home and village forage tree and grass nurseries and participate in large scale, broad-based farming-systems-integrated forage demonstrations. Based on demonstration results, the Programme will refine its seed buy-back policy and regulations and train farmers in seed production, collection and storage.

Activity 2: Animal breeding. Most livestock in the Programme area are indigenous species with low growth rates and final body weights. They do, however, carry the benefit of relatively high fecundity and local adaptation, including extensive foraging. Cross breeding of local breeds with introduced males of improved, adapted species, particularly for animals for fattening, is one avenue to increased productivity. Such species include the Red Sindhi for cattle, Bachthao for indigenous Lat goats and Mong Cai for pigs, all readily available in Viet Nam and used in Lao PDR. The crossbreeding of indigenous black pigs (Moo Lat, Moo Chid, Moo Markadon, and Moo Boua) with leaner European breeds (Duroc and Landrace) is already practiced by commercial smallholder farmers. As animal husbandry skills improve, the Programme will introduce improved sires to breed with indigenous females, leading to a progressive increase in livestock production and productivity. Such sires will be purchased by trained, specialised livestock breeding households through the NSLCP-RFSP livestock credit programme. Livestock breeding households, which will be trained and equipped to deliver fresh semen artificial insemination, will sell breeding services to villagers on a cash or in-kind basis. Given the relatively small proportion of households in the Programme area that will take up crossbreeding opportunities under the Programme, the wide dispersion of indigenous and the Programme focus on

producing crossbred stock for fattening, the NSLCP-RFSP is unlikely to significantly dilute indigenous breed genetics.

54. *Activity 3: Land use planning and allocation.* The Programme will, with PoNRE and DoNRE/DAFO support, assist SLPNG's villages to prepare or update their agri-ecological zoning and ecosystem analysis in order to plan and prioritize activities in agriculture and natural resource management (NRM) within their boundaries. These maps will be important for designating resources that need to be protected such as water sources and where the animals will be concentrated, as well as identify suitable land for supporting communal livestock production including planting forage and animal housing. Where land tenure has not yet been allocated the Programme will support participatory land use planning and allocation¹⁹ and subsequent land use titling in Programme villages. PoNRE/DoNRE in the project area will be financed to conduct systematic land registration in SLPNG villages. Land registration and titling in Programme villages is expected to generate the following positive effects: (i) legally recognised boundaries between settlement areas, agricultural land, livestock zones and forests; (ii) a reduction of land conflicts and encroachments through greater transparency of land use rights; (iii) increased opportunities for investment into land by villagers due to secure tenure and the possibility to use an individual title as a collateral for mortgage; (iv) support to a gradual transformation of agricultural use towards more permanent and/or intensive cropping systems; increase crop and livestock production in the longer term; (v) better protection of natural resources and the environment, e.g. by reducing the encroachment of cultivation into delineated forest areas; (vi) clear investment opportunities are identified in areas registered as state land; and (vii) give additional value to and make use of the supporting land use planning activities

55. The Programme will seek collaboration with the GIZ-financed Land Management and Decentralised Planning in Lao PDR project, adopting its methods and procedures for land use planning and titling. Land titles will be co-owned by the husband and wife. Subject to MoF agreement and in accordance with Article 78 of the Presidential Decree No. 003, 2012, the GoL, through the PoNREs and DoNREs in the Programme area, will make a significant contribution to the cost of implementing the land use titling programme through the recycling of household land titling fees back into the land use planning and survey programme.

Outcome 2. Rural households access sustainable and scalable rural financial services. This Outcome includes a sequential, three-pronged approach to developing rural financial services both in the NSLCP area and at national level. The three outputs under this Outcome are: (i) financial services to the SLPNG members; (ii) networked village funds in NSLCP districts; and (iii) a national Agriculture Refinancing Facility (ARF).

56. To achieve the NSLCP-RFSP development objectives, the following key strategies and operational approaches will be followed when implementing Outcome 2:

- apply sustainable, innovative models in NSLCP-RFSP rural finance activity implementation, with a view to national replication and upscaling of successful approaches;
- as a short-term strategy for financing NSLCP livestock investments, transform the ex-LDP VLF into a professionally managed, market rules-based rural financial services scheme effectively serving the NSLCP beneficiaries;
- through partnerships with the BoL and international donors, support the expansion of community-based Village Fund networks in the NSLCP villages through the operations of 2nd tier NSOs;

¹⁹ The Project will follow the methodology described in the 2009 "Manual on Participatory Agriculture and Forest Land Use Planning at Village and Village Cluster Level", which has been endorsed by the National Land Management Authority (NLMA) and the Ministry of Agriculture and Forestry (MAF). Based in this methodology, the NAFRI published a "Handbook on Participatory Land Use Planning (equality) Toolbox" in 2012.

- pilot in the NSLCP area the option of establishing an ARF for Lao PDR, to stimulate the participation of banks and MFIs in future rural and agricultural development activities and their financing nationwide.

Output 3. Financial services to SLPMG members

57. Under NSLCP, loans for capital investments and working capital are required for the planned livestock investments in around 5,400 households of the members of the 300 SLPMGs, if the development targets of the Programme are to be met. In this situation the selected strategy is to (i) re-design the credit scheme for NSLCP based on appropriate rural credit practices, market-based interest rates and full operational sustainability; (ii) capacitate the NSLCP credit management team and particularly the scheme implementers from the LWU to be able to competently manage the NSLCP credit scheme; and (iii) after the first round of financing the SLPMG members in PY1-3, transfer the recovered principal of both the VLF credit funds and the new NSLCP credit scheme funds to the ARF (see Output 5), to be used as long-term refinancing capital for registered banks and MFIs in Lao PDR. It is acknowledged that the initial approach of project-driven credit is not the most desirable approach to developing sustainable financial services. However, given the centrality of SLPMG members' early access to livestock credit and IFAD's delayed entry into the NSLCP, it is a required first step in converting the residual VLF and the NSLCP credit funds into refinancing capital of the sustainable ARF financing mechanism, to be established under Output 5.

58. The investments of NSLCP-RFSP under Outcome 2, Output 3²⁰ include:

- resources to recruit an international microfinance support NGO, partnered by national experts in microfinance training and community mobilisation, to finalise the re-design of the NSLCP-RFSP livestock credit scheme to capacitate and empower the scheme implementers, particularly the LWU staff, to successfully manage the NSLCP-RFSP livestock credit operation (IFAD highly concessional loan allocation LAK 4.4 billion, or USD 555,000); and
- additional credit capital from the IFAD highly concessional loan of LAK 15.2 billion, or USD 1.9 million, to be utilised for viable livestock investments in the NSLCP-RFSP credit scheme after the residual funds from the closed LDP credit (projected to be around LAK 19 billion, or USD 2.37 million) are fully used. As shown in Appendix 4, Annex 4, Table 1, this funding would be adequate to cover the projected first round loans of an average LAK 10 million (USD 1,250) to the targeted 5,400 trained members of the SLPMGs.
- Farmer contribution of about 20% of the investment costs through the construction of suitable animal housing and establishment of an appropriate forage area before receiving the loan.

59. Output 3 design builds on the lessons learned from the LDP VLF programme (see Appendix 3) and a set of principles agreed on to improve the basics of loan product design, the appropriateness of client selection, the standard of risk management, timely loan recovery and the overall impact of the scheme (see Appendix 4)²¹. The role of the support NGO will be critical to the success of the livestock credit provision under NSLCP-RFSP. The supporting NGO staff will train the scheme implementers on the credit scheme rules and procedures. This will include both formal courses on the new implementation modalities and active on-the-job training in the NSLCP Head Office and the provincial and district offices. New disbursements from the existing revolving funds to NSLCP beneficiaries could start only when: (i) the scheme implementers, especially the LWU staff in the districts, fully understand the new operational methods, and (ii) the SLPMG members are adequately trained by the

²⁰ See Project Costs Tables for detailed budgets for each rural finance-related NSLCP expenditure

²¹ IFAD/ADB is prepared to finance the a separate short-term consultancy assignment to re-design the credit scheme and draft its new Operational Guidelines based on agreed principles, to speed up the preparations for the re-start of livestock credit activities.

NSLCP staff and ready to present loan applications with appropriate business plans. The utilisation of the additional funds from the NSLCP-RFSP budget will start only when the existing revolving funds inherited from the LDP scheme are fully disbursed. In the first three Programme years, the supporting NGO will provide further training and direct implementation support on a continuous basis to ensure that loans are appropriately allocated and the livestock credits are fully recovered. (see Appendix 4 for implementation details).

60. Under NSLCP, the livestock credit funds can in PY1-3 be used to finance first round livestock investments of the SLPMPG members. All the interest income earned on the portfolio is likely to be required to cover the operational costs of the credit implementation. The recovered principal would be deposited on a NSLCP Revolving Account in the Regional Office of the Programme. After the establishment of the ARF within the BoL (see Output 5), the accumulated capital on this account would be quarterly transferred to the ARF. From these funds, long-term refinancing capital can be issued to qualified, registered banks and MFIs, to encourage investments in agricultural production and processing in Lao PDR.

Output 4. Networked Village Funds in NSLCP Districts

61. Village funds are community-based operations that accept deposits from their members and issue loans from these funds to their members. The VFs do not employ permanent staff and can operate with very small operational costs, which makes reaching operational sustainability much easier. The profits made from VF operations are divided amongst members based on their share of total savings. The VFs are widespread in Lao PDR. At the end of 2014, there were 4,815 VFs in the country with a total membership of 464,000. In rural areas, a major part of their lending is for agricultural purposes, including the financing of livestock projects. Establishing new VFs and improving the functioning of these community-based operators through capacity building and support services and through a clearer supervisory environment will be an important step forward for rural financial service provision and financial inclusion in rural areas.

62. GIZ and the BoL have, under the Access to Finance for the Poor (AFP) programme, developed a systematic approach to expanding and strengthening the VF networks in Lao PDR. This approach is based on the establishment of 2nd tier support organisations called Network Support Organisations (NSOs) at the provincial level. NSOs charge the VFs for their capacity building and management support and provide liquidity management services, taking excess liquidity as deposits and lending the funds on at a margin to VFs that need additional lending capital for their operations. The objective of the NSOs is to become sustainable in around 4-5 years by serving a minimum of 40-50 VFs, and continue on a permanent basis their operations as a management agent and an “apex bank” for their member VFs.

63. To increase financial inclusion in the NSLCP districts, the NSLCP-RFSP will partner with the BoL/GIZ-managed AFP programme to establish around 200 new, well-functioning VFs in the NSLCP districts. To achieve this, the Programme will support the establishment of three new NSOs in Luang Prabang, Houaphan and Xieng Khouang provinces and expand the operations of the already functioning NSO in Luang Namtha to cover Vieng Phou Kha district, in addition to the already-covered Singh and Nalae districts. The NSOs will develop into fully sustainable MFIs which will need no additional support after NSLCP-RFSP closes.

64. The next step will be a model, in which the NSO will externally borrow “wholesale” funds and channel these funds at a margin to their member VFs for on-lending. As indicated in Appendix 1, mature VFs have already expressed their interest in these kind of more developed funding operations, especially if they received appropriate capacity building on loan appraisal and risk management. The proposed NSLCP-RFSP intervention provides an opportunity for the BoL/GIZ and the NSOs to pilot with this type of an option, particularly when the planned ARF described in Output 5 of NSLCP-RFSP becomes operational in PY2. (see Appendix 4 for implementation details)

Output 5. Agriculture Refinancing Facility

65. The NSLCP-RFSP will assist the GoL to establish a national ARF, to catalyse the participation of registered private banks and MFIs in agricultural and rural development finance operations in Lao PDR. The ARF will be a national support mechanism that will receive funding from existing grant funds held by the MAF, from NSLCP-RFSP and from new credit lines from International Financial Institutions (IFI)²². The ARF will apply those funds to refinance a portion of lending by prudentially-approved commercial banks and MFIs to targeted agriculture sectors, in line with the national agricultural development strategy. Sanctioned commercial banks could have up to 80% of their approved agriculture sector lending refinanced through the ARF at rates that significantly increase their lending spread and, therefore, reduce their credit risk. MFIs and associated VFs will similarly benefit from tranche loans for member investment in agriculture and rural development sectors. As evidenced in a number of countries that have adopted this structure, refinancing creates a strong incentive for financial institutions to lend to the agricultural sector. This, in turn, expands financial sector knowledge of agricultural and rural investment opportunities and builds their confidence in lending to the sector. Typically, ARF facilities can be withdrawn after about 10-15 years, by which time rural financial services demand is being largely met by the commercial rural financial services sector without this support mechanism. In Lao PDR, the BoL projects a significant demand for the ARF services, mainly for two reasons. Firstly, financial institutions, while often liquid with short-term funds, lack capital for longer-term lending. The ARF would make this long-term capital available at affordable terms, which is expected to stimulate bank lending especially to agri-processing investments in the key value chains, including the livestock sub-sector. Secondly, various mature MFIs, including NSOs, are planning to expand their rural outreach but lack lending capital to do it. The ARF tranche-based refinancing would make this possible, in this manner creating opportunities for increased financial inclusion in rural districts. In the view of the BoL, the NSLCP allocation for refinancing capital is likely to be fully used in a short period of time, and it recommends actions to raise more refinancing capital for the ARF from other sources when the Facility becomes operational, including unused MAF funds and new loans from IFIs.

66. It is proposed that the ARF be sited in either the MoF or the BoL²³, which will establish a small, self-financed ARF Management Unit, which will cover its operational costs through a modest mark-up on the refinancing funds it disburses. The ARF will be managed by a Management Board, chaired by the Minister, MAF or his/her representative, with the MoF providing the vice chairperson. The Management Board will set the ARF refinancing policy and provide overall guidance and oversight. The actual refinancing decisions will be made by the ARF Loans Committee, consisting of the representatives of the MAF, the MoF and the BoL, based on the assessments and recommendations of the ARF Management Unit. It will be initially capitalised by a mix of IFAD highly concessional loan and MAF grant funds and be piloted to support commercial bank and MFI lending to larger-scale animal production and related agribusiness investments in the NSLCP area. If assessed by the ARF Management Board as successful over its first 18 months of operation, the ARF will be further capitalised by: (i) the IFAD/NSLCP Programme funds; (ii) IFIs planning support to the Lao PDR agricultural financial services market; and (iii) MAF's existing development funds, and will be progressively scaled up to support agricultural lending nationally.

67. The final design of the ARF, to be completed in PY2, will include the detailed Investment Guidelines for the Facility as well as the operational procedures and systems to be applied in the refinancing activities between the ARF, the financial institutions and their clients. The ARF Guidelines will clearly state that, for banks, only agriculture sector loans can be refinanced, and, for MFIs/VFs/NSOs, that all the refinanced capital must be only used for agricultural and rural development loans.). For banks, this will be monitored during approval of individual refinancing loans and then later verified in practice during field visits by the ARF and Programme supervision missions.

²² Both IFAD and the ADB have indicated long term commitments to developing rural financial services in Lao PDR

²³ IFAD will before the Final Design Mission have further discussions with the GoL on the most appropriate location for the ARF Management Unit.

For tranche loans to MFIs/VFs, the same rules concerning sub-sectors will apply. Because of the tranche-approval approach, however, the monitoring during implementation will be more important. This will require accurate reporting by the MFIs/VFs, supported by active field inspections by the ARF to confirm that the provided information is correct and the received capital has been used for the correct purposes by the final borrowers. The NSLCP-RFSP investment in the ARF would include: (i) seed refinancing capital for the Facility; (ii) international TA to assist in the final design and to provide start-up support; and (iii) limited initial operational financing support until the ARF reaches full operational sustainability. (see Appendix 4 for implementation details)

D. Lessons learned and adherence to IFAD policies

68. Analysis and consultations with stakeholders carried out for the preparation of the current Country Strategic Opportunities Programme (COSOP) identified lessons drawn from the implementation of the previous COSOP (2006-2010). Relevant lessons for NSLCP-RFSP design listed in the COSOP document are the following:

- IFAD support should focus on agricultural livelihoods and the associated natural resource, avoiding dissipation. IFAD should partner with other donors to ensure better activity convergence;
- Continued capacity building and knowledge management is crucial for all stakeholders, including technical agencies, extension agents and beneficiary households. Training should be provided in the languages of the target ethnic groups. Training should take cultural differences into consideration and should take place in the villages or *kum bans* and not in the district capital;
- While inclusive targeting should be promoted, tailored and specific approaches for each ethnic group and gender, should be followed in order to ensure that a greater proportion of the poorest villagers benefit from Programme support;
- Grass roots participation in the planning and implementation of activities should be put as a priority and women's and youth's involvement must be ensured;
- Stronger synergies between grants (regional and country) and loans (projects) should be ensured;
- Links must be established to those government and private sector extension services that can support tenure security, agricultural and livestock productivity, and market access;
- Stronger focus should be given to the operation and maintenance of infrastructure;
- Decentralized decision-making systems should be supported, and more accountability should be given to the district and *kum ban* levels;

69. Furthermore, NSLCP-RFSP takes stock of recent experience of the ADB-financed LDP as well as of other projects and players involved in supporting rural financial and livestock development and extension services in Lao PDR including the FNML, RLIP, SNRMPEP and SSSJ projects²⁴, and the Swiss Development Corporation (SDC). Lessons include:

- financial services should, once appropriate financial structures are in place, be provided through BoL-registered financial institutions, not project entities;
- loans to smallholder farmers should be issued as group loans, to small (5-7 members) cohesive groups, with each borrowing group trained on the solidarity concept and obligations resulting from group guarantee and all group loans should be preceded by a simple business plan, based on which each loan application will be carefully assessed by the scheme implementers;

²⁴Food Nutrition and Market Linkages (FNML) Programme, Rural Livelihoods Improvement Programme (RLIP), Sustainable Natural Resource Management and Productivity Enhancement Project (SNRMPEP) and Soum Son Seun Jai (SSSJ) Programme

- farmer training should be particularly focused on the subject of smallholder livestock production as a business and on directing investments and loans towards the most profitable type of investments (instead of the common practice of procuring new cattle largely for prestige and financial buffer purposes);
- the repayment capacity of each household should be assessed based on the total income of the households, not only based on the cash flow from the funded livestock activity, and the tendency for focusing on long single payment loans for large cattle should be avoided;
- the interest rates for the NSLCP-RFSP livestock credit scheme should be at the level applied by the APB (13% p.a.), which will make it possible to cover all the implementation costs from the interest income without eroding the capital base of the scheme;
- loan follow-up must be conducted in an active manner, with visits to each defaulting borrower immediately when the first 31 day arrears in a loan appear. In cases such as climate-related calamities or household health issues, new repayment schedules could be negotiated. In case of wilful default, prompt action should be taken to avoid the losses of public funds, including the sale of household assets such as cattle, motorcycles and televisions;
- misuse of loan funds for other purposes than indicated in the loan application should be sanctioned immediately when discovered;
- community engagement, especially in ethnic villages, requires additional analysis, resources, and institutional coordination; and
- equity aspects should be mainstreamed in Programme design, with adequate capacity and monitoring mechanisms.

70. With specific reference to livestock production, key LDP lessons include²⁵:

- While the project design for increased livestock production was inclusive of women and ethnic groups, the poorest households were difficult to reach;
- the transition from low-input livestock to commercially oriented production is a lengthy process that is seldom achieved in less than 10 years;
- The importance of improved animal health, nutrition, and hygiene has been demonstrated, but is not yet sustainable without further support;
- In the growing Lao PDR economy there is a strong domestic demand for livestock resulting in few market access constraints at village level, however, livestock producers need additional information on their livestock's weight to better negotiate sale prices.

71. The Programme is consistent with IFAD Strategic Framework 2016-2025, and IFAD's Environmental Natural Resource Management (ENRM) Policy, Climate Change Strategy, Policy for Gender Equality and Women's empowerment, Policy for Indigenous People, Policy to Improve Access to Land and Security of Tenure, and IFAD's Knowledge Management Strategy. Programme adherence to IFAD policies is detailed in Appendix 12

III. Programme implementation

A. Approach

72. The approach taken under the NSLCP-RFSP supports GoL policy to expand domestic livestock through improved productivity and value addition, including through sanitary measures, to enable commercial smallholder farmers to compete more effectively in regional markets and in import substitution. While there is considerable scope to improve GoL regulatory measures in the livestock sub-sector, the primary driver of change in the sub-sector will be the private sector, in both production, processing, marketing and financing, and it is toward the private sector that the Programme resources are directed. The Programme approach also supports GoL's "*sam sang*" policy for accelerating sector

²⁵ See Appendix 3, Table 1 for detailed LDP lessons learned

growth, wherein the province is the strategic unit, the district the planning and budgetary unit, and the village the implementing unit. This approach is exemplified in the Programme through the bottom-up planning approach, support to farmer-led technical service delivery, establishing private and communal land use rights, support to the development of private and cooperatively owned MFIs and by measures to catalyse private bank investment in rural and agricultural sectors. The Programme, furthermore is designed to build institutional structures that are both sustainable and scalable.

73. One of the more challenging issues with the Programme approach is how to shift smallholder farmers toward more commercial production. The relatively low level of technology adoption and market integration achieved under the former LDP exemplifies this problem. The Programme will address this issue by firstly ensuring, through bottom-up, group-based processes, that participating households are motivated to commercialise their production and have a profitable business plan to achieve their goals. It will then bridge the substantial technical knowledge gap that still exists at district and lower levels through (i) competency based training of district staff and LFs, particularly female LFs, in animal husbandry, health and nutrition (provided through ADB-financed activities, led by international TA); (ii) the enabling of a demand driven advisory service particularly through LF2F extension and FFS; and (iii) providing farmer groups with cost-shared grants to enable them, through community led action, to redress infrastructure and equipment gaps critical to efficient livestock production and marketing.

74. Rural financial services have been slow to emerge in Laos PDR outside of the government subsidised Nayoby bank and the APB. The inefficiency and risk associated with the unsustainable LDP VLFs is emblematic of the constraints facing rural financial services in Lao PDR. Nonetheless, over the last 25 years, there has been the progressive “under-the-radar” growth of VFs, which now hold a significant capital base for financing local investments. At the same time, household incomes have diversified, including through wage labour and remittances, to the point where agriculture now often forms less than 50% of total rural household income, enabling households to more easily service borrowing. Within this framework, the BoL and GIZ, through their jointly implemented AFP Programme have identified and established a successful private/cooperative sector model for strengthening VF administration and effectively redistributing excess VF liquidity. The model also provides an avenue for the financial leverage of VFs. The NSLCP-RFSP proposes to partner with the BoL/GIZ to expand this now proven model in the Programme provinces. For the more immediate need to disburse credit to NSLCP SLPMG members, the Programme approach would be to apply a set of principles designed to improve the basics of loan product design, the appropriateness of client selection, the standard of risk management, timely loan recovery and the overall impact of the scheme. In applying these processes, the Programme will build the capacity of LWU staff especially at district level, to effectively operate the livestock credit scheme. After the first round of financing of SLPMG members, the capital reflows would be directed to the ARF which, operating as an independent unit with professional staff in the BoL, would use these funds as refinancing capital for registered banks MFIs and NSOs/VFs.

75. The organizational and management structure proposed for NSLCP-RFSP is based on the lessons learnt under other IFAD projects in Lao PDR and, in particular, the FNML and SSSJ projects, which can be summarized as follows:

- TORs specifying positions, roles and functions of the NPMO and Project Steering Committees (PSCs) at all levels and their reporting system are critically important to ensure effective and timely Programme performance in its early implementation stage;
- Financial management mechanism and flow of funds for all outcomes should be clearly specified in the Programme design and implementation guideline documents;
- The Programme management structure should not create a different system operating in parallel with the existing local institutional setup;
- The Programme capacity building interventions should focus on improving the public services at the district and kum ban levels to ensure effective decentralization;

- The Programme M&E systems have been reasonably robust in terms of generation of timely and sufficient data, but less effective as a management tool for planning, strategizing and implementation at Programme level or in informing policy at national level;

76. The Programme will adopt similar implementation arrangements to those used for previous IFAD projects. Changes reflecting their operational and managerial experience and lessons learned will, however, be incorporated. Programme Management will aim at maximizing effectiveness and efficiency through application of the following principles:

- the management structure will adhere to the current structure of local institutions, building capacity to address poverty through market-based approaches;
- decentralize resources to the district and village levels and promote private sector service and input suppliers and markets;
- apply a “learning by doing” approach to introduce innovations amongst farmer groups and target LF2F learning mechanisms, particularly for female farmers, for scaling up results;
- support changes in the roles of the provincial agencies from traditional implementing bodies to the positions of knowledge sharing and policy/guidelines makers;
- mainstream the participation of the private sector throughout the planning, implementation, monitoring and evaluation of the Programme activities;
- strict implementation of IFAD policies and guidelines in result-based Programme management;
- the development and application of an effective anti-corruption policy

B. Organizational framework

77. **The Ministry of Agriculture and Forestry**, through its Department of Livestock and Fisheries (DLF), is the NSLCP-RFSP lead agency that has overall responsibility for NSLCP-RFSP implementation, which it delegates to district administrations and to the National Programme Coordination Office (NPMO) based in Vientiane. The NPMO will be led by a National Project Coordinator (NPD) and includes Programme-financed financial and procurement management and monitoring and evaluation and knowledge management staff. Technical support will be provided by the DAEC, strengthened by Programme-appointed technical advisers (int.) and national experts in Programme administration, agribusiness, animal processing, gender, curriculum development, resettlement, environment, livestock production and rural finance. The PAFO Head will be the Programme focal point at provincial level, supported by a NSLCP appointed national accounting, M&E, gender and environment specialists. The DAFO head will be the Programme focal point at district level, supported by a NSLCP-recruited accountant and M&E specialists.

78. **District Agriculture and Forestry Offices** will serve as a focal point for technical support for NSLCP-RFSP activities. Under the NSLCP, each DAFO will assign: (i) an officer to act as the District Coordinator; and (ii) a DAEC coordinator (deputy manager). They will be supported by: (i) accountant funded by the Project to (a) coordinate and consolidate planning and budgets for the preparation of AWPBs; (b) manage NSLCP-RFSP accounts for expenditure carried out at district level, and (c) prepare, semester and annual progress reports and financial statements; and (ii) an M&E officer. AWPBs, semester and annual progress reports will be validated by the District Governor. Line agencies at district level will participate in the implementation of NSLCP-RFSP activities under their respective responsibilities. DAFO-based technicians will provide technical support and assist in the implementation of Programme activities. District staff will be selected on a competitive basis and reflect gender balance, with a special effort made to select people who have command of ethnic languages.

79. **The District Governor** will send validated district NSLCP-RFSP AWPBs to the provincial level, where the PAFOs will review and consolidate them, prior to submitting them to the Provincial Project Steering Committee for approval. The Committee will review and approve them, and send them to the NSLCP-RFSP NPMO for financing.

80. **Kum ban “Pattana” Village Development Clusters** will be the focal point for coordinating bottom-up participatory village level SLPMG development planning with a view to taking a more holistic approach to the development of the scattered upland villages of Lao PDR.
81. **The NPMO**, based in the MAF-DLF in Vientiane, will assist MAF in carrying out NSLCP-RFSP implementation and will be fully accountable for the performance of Programme implementation and the use of funds. More specifically, the NPMO will: (i) provide overall guidance and technical support to NSLCP-RFSP implementers, and build verifiable/measurable district capacities for NSLCP-RFSP implementation and coordination; and (ii) ensure overall coordination and Programme management. The Programme will appoint a DLF staff person as the Deputy Project Coordinator, based in the NSLCP regional coordination office in Luang Prabang, to coordinate NSLCP-RFSP field work.
82. **Lao Women’s Union (LWU)**. The LWU will play a key role in supporting NSLCP-RFSP women’s empowerment and livestock credit distribution.
83. **GIZ**, drawing on its AFP experience, will cover all the costs related to international staff in the implementation of Output 4.
84. **National Project Steering Committee**. The NPSC will be responsible for overall project direction and, working within the framework of the NSLCP-RFSP, for the convergence of NSLCP-RFSP activities with other agencies and development partners. It will provide guidance and oversight to participating provinces and districts, be responsible for approving NSLCP-RFSP AWPBs and progress reports for submission to MoF and IFAD, and will be the final arbitrator on issues relating to Programme design and management. The NPSC will include representatives from MAF, MoF, MPI, and Chamber of Commerce and the 4 provincial Governors/vice governors. The NPSC, which will be chaired by the Vice-minister, MAF, will rotate its half yearly meetings between Vientiane and participating provinces.
85. **Provincial Project Steering Committees**. The PPSC will approve annual AWPBs and annual progress and financial reports prepared by participating kum bans and districts and approved by the respective district governors, or appointed district committee. In addition to representatives of the aforementioned Ministries at national level, it will include agri-business, LWU, LFN, international NGOs and civil society representation. The Provincial Governor will head the PPSC.
86. Successful NSLCP-RFSP implementation requires the planning processes to effectively articulate the views of various public institutions (government and line agencies), people’s and communities’ organizations and groups. This requires building consensus around common objectives, constant communication and a flexible decision-making structure. The basis for investment planning at the community level will be derived directly from the SLPMG process, which will initiate the preparation of livestock investment plans. Trained DAFO staff, supported by contracted service providers will ensure that the SLPMG development, investment planning and financing process is genuinely representative and inclusive, as well as being consistent with government rules, policies and SEDPs.

C. Planning, M&E, learning and knowledge management

Planning

87. Annual Work Plan and Budget (AWPB) will be the key management tool for planning, monitoring and reporting on implementation of activities. The AWPBs will be based on the design report and informed by operational experiences and supervision mission reports. The Programme Logical Framework should be used as the main reference for formulating the AWPB, to create clear linkages between proposed activities and budget requirements and expected outputs, outcomes and impacts (annual targets vs. achievements).
88. The Programme will follow a participatory planning approach in the targeted areas to ensure that the Programme’s interventions will best reflect the needs of the target groups and the local context. The participatory planning approach will be led by the NSLCP coordination unit at the

provincial level (PAFO) and the outcome of this participatory planning will be integrated into the AWPB to be consolidated by the NPMO. The AWPB will cover detailed activities and will be used as a tool to promote a results-oriented and performance-based approach.

89. Building on participatory planning processes undertaken in other IFAD-supported projects/programmes, the planning process will be based on consultations with beneficiaries at the village level, using a Participatory Rural Appraisal (PRA) approach. Furthermore, a Participatory Monitoring and Evaluation (PME) system will also be established at the village level to track and rate progress against village plan targets, monitor their progress and identify implementation issues. These two approaches are aimed at achieving community empowerment and ownership and ensuring transparency during Programme implementation. The participatory planning and monitoring activities will be led by the PAFOs in the Programme provinces, with support of local service providers.

Monitoring and evaluation

90. The Monitoring and Evaluation (M&E) system of NSLCP-RFSP is designed to provide reliable information to facilitate a results-based management of the Programme. The M&E system will be aligned to on-going efforts of the MAF to create and implement a Project Management and Information System (ProMIS), a harmonized ODA M&E system. The main objectives of the Programme's M&E system are to:

- *steer Programme implementation*: provide Programme stakeholders with the information and analysis required to measure Programme outputs and outcomes; assess Programme effects on the livelihoods of participating households; assess the relevance of the Programme's implementation strategy and processes; identify lags; and support overall decision-making to improve Programme performance;
- *support economic decision making*: provide information to the implementing agency, participating beneficiaries and other stakeholders, with the information and analysis needed to assess the return brought by Programme investments, especially for developing profitable activities and to adapt their strategies accordingly, by monitoring both quantitative (yields and production, margins, credit management) and qualitative results (members'/clients' satisfaction);
- *support policy-making*: the M&E system will provide government with information to measure Programme contribution to the implementation of overall MAF national strategies, and provide data and analysis to government towards evidence-based policy making.

91. The M&E system will have three levels of monitoring: output, outcomes and impact and will provide information by poverty status, gender, and ethnicity. Where appropriate, outcome and impact indicators will be disaggregated by poverty quintile. The NSLCP has an Indigenous Peoples Planning Framework (IPPF)/Ethnic Groups Development Framework (EGDF) specifying the requirements that will be followed in relation to screening and assessment of impacts, meaningful consultation, and preparation of EGDPs during NSLCP-RFSP implementation²⁶.

92. Apart from the three levels of monitoring, the Programme will also monitor processes. This will involve monitoring the processes leading to outputs and outcomes. Specific areas where progress monitoring will be applied include the provision of technical services, the execution of participatory village SLPMG establishment and execution of group activities. Information on these may be gathered via PME, as well as from village, SLPMG or service provider records.

93. Furthermore, special studies will be undertaken at mid-term review to assess: (i) improvement in production and productivity (forage development and livestock productivity); (ii) use and benefits of VFs and NSOs; and (iii) delivery systems and implementation methodology/approaches adopted by DAEC and F2F services. Other studies will be undertaken as deemed necessary by the NPMO.

²⁶ See NSLCP Indigenous Peoples Planning Framework in Project life file

94. An MIS system will be established in the first year of Programme implementation. The system will provide information on physical and financial progress, procurement plans and progress as well as on baseline conditions, outputs and outcomes and other pertinent information. These will be automated to generate regular semester reports and annual progress reports.

95. Alignment with ProMIS: The MAF in 2012 initiated an effort to harmonize data generated from the various on-going projects in MAF. This led to the on-going efforts of developing and operationalizing of ProMIS. The overall objective of ProMIS is to enhance the efficiency and effectiveness of public investment programme management under MAF, with a focus on standardizing certain indicators for monitoring projects within agriculture and forestry sector and developing tools for recording data and generating various reports on project results at the central ministerial level.

96. While NSLCP-RFSP will develop its own M&E system to respond to the reporting requirements of IFAD, it will also make an effort to be aligned with the evolving ProMIS system. The Programme will, to the extent possible, harmonize its data collection processes and templates to that of ProMIS. The Programme will make provision for installation of ProMIS at the NPCO and train NSLCP staff in the use of ProMIS. The Programme will also work closely with the central M&E Unit within the MAF Project Management Division (for ODA projects) to identify suitable MAF-level outcome indicators, that will be required to measure progress against the 8th National Socio-Economic Development Plan targets.

97. *Staffing:* The M&E Officer at NPMO, who is the project's lead M&E staff, shall be supported by M&E focal points at each PAFO level project office. The NPMO M&E Officer shall develop the overall framework for Programme M&E in accordance to the Programme document M&E plan and coordinate national surveys and studies under. The NPMO shall also include a NSLCP-RFSP recruited Knowledge Management Officer who will be responsible for gathering and analyzing Programme information and effectively communicating results to Programme beneficiaries, management, The donor community and other relevant stakeholders. These staff will be responsible for managing and coordinating monitoring of activities and outputs, and for working with field NGOs and contracted Service Providers on participatory M&E, process monitoring and KM.

Learning and knowledge management

98. The Programme's learning system comprises of provincial level quarterly meetings and national bi-annual and annual review meetings, capturing information on progress, lessons and finding solutions for implementation constraints. A consolidated Annual Programme Review will be carried out towards the end of each fiscal year, in addition to the bi-annual reviews at national level. It will assess performance in the achievement of physical and financial progress against annual targets. Furthermore, reviews of progress towards development objectives as reflected in the Outcome Surveys will be done to assess success and failures and reasons thereof and lessons learned.

99. *Mid-Term Review (MTR).* The Government and IFAD will jointly undertake a mid-term review by the third year of the Programme lifecycle to review Programme achievements and implementation constraints. In particular, it will review the following: (i) achievement and improvements in the livestock production systems and increase in income of beneficiaries; (ii) the performance of VFs; (iii) achievements and shortcomings in the establishment and functioning of NSOs (iv) progress achieved with the NSLCP livestock credit scheme and options in the channeling the revolving funds to LWU MFIs and potentially to the ARF; (v) feasibility of establishing an ARF; (vi) impact of other Programme activities; (vii) financial and procurement management; and (viii) effectiveness of the institutional arrangement of the Programme. A mutually agreed action plan will be prepared based on the MTR findings.

100. *Programme Completion Review.* As the Programme reaches completion, the NPMO will prepare a draft Programme Completion Report (PCR). IFAD and the Government will then carry out a Programme Completion Review based on the information in the PCR.

101. *Knowledge management* will be done systematically throughout the entire duration of the Programme. To enable effective knowledge management and sharing, results and lessons from the Programme will be documented systematically through special studies and knowledge products commissioned by the NCPO. The M&E system will be one of the most important sources of knowledge. In addition, innovations observed during the implementation process will also be documented. The NPMO M&E staff will also take the responsibility for disseminating knowledge documents through dedicated websites and occasional workshops and seminars.

102. Simultaneously, MAF will support the NPMO to communicate learning from the NSLCP-RFSP implementation, and from other IFAD-supported projects in the provinces, within the government and to the wider donor community and other relevant stakeholder, by hosting workshops and publishing analytical reports. NAFRI, and particularly the Policy Think Tank, will play a leading role in promoting learning and managing innovation processes, based on the lessons learned from the Programme's field experience by documenting and disseminating the findings within the Programme and with other interested parties. This aspect will be key for scaling-up successful interventions.

D. Financial management, procurement and governance

103. NSLCP-RFSP financial management will be governed by the MOF decree on the financial management rules applicable to Official Development Assistance loan funds²⁷, and in line with IFAD guidelines on financial management.

104. **Designated Account:** The GoL shall open a Designated Account (DA) denominated in US dollars in the Bank of Lao PDR for receiving and holding the loan proceeds. The DA will be operated by the MoF and will be protected against set-off, seizure or attachment on terms and conditions proposed by the Borrower and accepted by IFAD, in accordance with the Financing Agreement and Section 4.04(d) of the General Conditions. The Borrower shall inform the Fund of the officials authorized to operate the DA. Upon fulfilment of conditions precedent to withdrawal and the Borrower's request, the Fund will make a withdrawal of USD 2 million from the Loan Account in the aggregate, and deposit such amount into the relevant DA. Subsequently, MoF will: (i) transmit Withdrawal Applications (WAs) to IFAD; (ii) receive IFAD replenishments into the DA; and (iii) transfer the funds from the DA to the Programme Account (PA) based on the AWPB and replenishment requests. MoF shall ensure that funds required by NPMO are transferred without delay. The NPMO will ensure that replenishment requests from implementing agencies are in order and that timely WAs are sent to IFAD (through MoF), with appropriate supporting documentation.

105. **Programme Account:** The NPMO shall open and maintain an account denominated in LAK for Programme operations, the "Programme Account" (PA). The PA shall be funded and replenished as necessary from the resources held in the Designated Accounts, upon request of the NPMO and in accordance with expenditures incurred under approved AWPBs. The NPD (with a co-signature) shall be fully authorized to operate the relevant PA. Programme sub-accounts will be opened at the DAEC and provincial and district levels. The flow of funds is detailed in Appendix 9, Annex 1, Table 19.

106. **Statements of Expenditure (SOE).** For Withdrawal Applications for IFAD resources, the SOE facility will be applicable for all eligible expenditures up to a threshold USD 60,000 to all categories of expenditure cited in Schedule 2. Please note however, the Fund continues to reserve the right to request supporting documentation when required for inspection and verification.

107. **Financial management.** As custodians of funds in the Programme Account, the NPMO will undertake the following financial management tasks:

- ensure that Programme expenditure items and practices are consistent with those of the Government and IFAD;
- ensure that Programme suppliers and locally paid staff are paid promptly and adequately through liaison with Ministry of Finance and the IFAD Country Office staff;

²⁷ Decree 2695/MOF dated November 1st, 2010.

- ensure that Programme expenditure is being coded correctly and consistently and that Programme funds are used solely for the purposes for which they were granted and in accordance with relevant IFAD guidelines;
- establish an asset register for all assets purchased by or provided to the Programme in line with standard IFAD policies;
- check monthly Programme financial report for accuracy and appropriateness, and ensure the Finance Manager is current with events concerning financial reporting issues, errors, trends, payment delays and related matters; and,
- monitor expenditure on a monthly basis against the approved AWPB in order to prepare and send timely fund withdrawal applications to IFAD and review expenditure Programmes to ensure that expenditure stays within budget. Significant actual or anticipated expenditure variances against the budget should be included in the monthly report to line management together with any recommendations for changes to the budget.

108. The Head of Finance of the NPMO will be responsible for the actual management of these tasks, and will report to the NPD.

109. MAF, through the NPMO will be accountable to the government and IFAD for the proper use of funds in line with legal agreements. Programme accounting systems will be consistent with international accounting standards and with government requirements and internal financial controls will regularly be applied.

110. **Procurement** will be carried out in accordance with government regulations (Lao PH) and IFAD Procurement Guidelines. It will be finalised by the NPMO as an integral part of the NSLCP-RFSP annual procurement plan. Procurement methods for work and goods packages under the NSLCP-RFSP include (i) national competitive bidding applied for packages with estimated cost equivalent or exceeding USD 100,000; (ii) local competitive bidding applied for packages with estimated cost less than USD 100,000; (iii) procurement with community participation or Force Account applied for infrastructure schemes that can use intensive un-skilled labour and simple techniques such as livestock water supply, forage fencing, livestock holding and loading facilities, etc. with the estimated cost of less than USD 30,000; (iv) direct contracting could be applied for very small packages with estimated cost less than USD 5,000. The inclusion of rural youth in force account construction work will be encouraged. For efficiency, the procurement of equipment, service providers and consultants' services will be done by the NPMO, while the procurement of small value contracts for the procurement of goods and services will be done at the district level or by beneficiary communities. Service providers will be hired through renewable performance-based contracts²⁸.

111. IFAD no objection will be required for procurements of goods and works above USD 100,000. In addition, procurement undertaken through direct contracting will be subject to IFAD's no objection.

112. **Governance.** Laos has a 2014 Corruption Perception Index of 25 (over 100) and ranked 145 out of 177 countries, a decline from 140th in 2013, indicating a significant lack of transparency in government institutions. IFAD will apply a zero-tolerance policy on corruption. The NPMO will, with assistance from the Financial Management and Procurement Advisors, prepare a programme framework for transparency and publicity. This framework will include provisions to ensure that both procurement (whether carried out by the districts or by the NPMO) and the selection of agribusiness that will enter into business partnerships and benefit from NSLCP-RFSP support, are carried out in accordance with IFAD rules and with programme design specifications. The framework will be included in the Project Implementation Manual (PIM). Measures will include: (i) the publication/posting of all procurement, calls for proposals, contract awarding and business partnership details on local newspapers, at district and provincial offices, including assessment criteria and weighting; (ii) the participation of representatives of end-users in bid assessments; and (iii) the prompt communication to bidders of bid evaluation outcomes. This framework will also include an internal code of conduct to

²⁸ Procurement limits aligned with those of the ADB NSLCP Project Administrative Manual (PAM)

be signed by all NPMO and Project DAEC staff, and a code of business ethics, to be signed by all partners and beneficiaries of NSLCP-RFSP activities and business partnerships. Draft codes will be discussed and agreed at the inception workshop.

113. Other measures reflected in programme design to ensure transparency include the following: (i) annual Programme account audits, including a random sample of community and farmer-group grants, will be performed in accordance with International Standards of Auditing by an external independent auditor; (ii) IFAD's direct supervision process will specifically address fiduciary compliance and the implementation of the programme framework for transparency and publicity; (iii) programme stakeholders (and especially farmers and their organisations) will be directly involved in programming, implementation and M&E of NSLCP-RFSP activities; and (iv) evaluation and impact assessment will be outsourced to independent institutions.

E. Supervision

114. **Supervision.** The Programme will be supervised jointly by IFAD and ADB. Annual supervision missions, followed initially by short follow-up missions six months later, will be organised jointly with the GoL and will include the main implementing agencies and Programme stakeholders. Implementation support missions will be fielded based on specific needs. Supervision will not be conducted as a general inspection or evaluation, but rather as an opportunity to assess achievements and lessons jointly, to review innovations, and to reflect on improvement measures. Missions will therefore be an integral part of the knowledge management and learning cycle, with mission members playing a supportive and coaching role. To ensure continuity in this process, missions will be carried out by a core team of resource persons, joined by specialists to address specific needs of a given year. Key areas of expertise to be reflected in the mission include climate change adaptation, irrigation engineering, agronomy/natural resource management, participatory approaches/gender equity and financial management. Key features requiring specific attention include the following: (i) sustainable nutrition behavior change; (ii) sustainable, nutrition-rich upland farming systems, (iii) evolution of farmers' organizations and farmer-to-farmer activities; (iii) M&E and KM; and (iv) fiduciary compliance, and implementation of the programme framework for transparency and publicity.

115. **Mid-term review.** A joint mid-term review will be organized by government and IFAD after 30 months (mid-2019), in close collaboration with the above-mentioned agencies and stakeholders. It will be carried out by consultants not involved in supervision missions so as to bring a fresh look at 2.5 years of Programme achievements and learning. The MTR will: (i) assess programme achievements and interim impact, the efficiency and effectiveness of NSLCP-RFSP management, and the continued validity of NSLCP-RFSP design; (ii) identify key lessons learnt and good practices; and (iii) provide recommendations for the second half of programme implementation. Specific issues to be addressed include the following:

- The approach to livestock commercialization and investment planning at community and household levels;
- the performance of sustainable livestock development technologies;
- the performance of farmers' organisations and the opportunity to develop second-tier marketing organisations;
- progress achieved with the NSLCP livestock credit scheme and options in the channeling the revolving funds to the ARF;
- the performance of the multi-stakeholders' platforms;
- the progress in social inclusion and gender equity;
- the progress of government capacity in M&E (MAF ProMIS).

116. **Completion review.** IFAD and ADB, furthermore, will organize a comprehensive supervision mission in the first half of the final Programme year to conduct a thorough review of achievements and make recommendations to ensure the sustainability of programme achievements beyond programme completion

F. Risk identification and mitigation

117.

118. Table 3 identifies the main risks and mitigation measures, as well as sensitivity to risk occurrence as per the economic analysis.

Table 3 Programme Risk and Risk Mitigation Analysis

Risks	Risk description	Probability of occurrence	Mitigation measures in programme design	Comparative sensitivity analysis result (Proxy)
Institutional	Technical coordination is not responsive to the grassroots level needs.	Medium	Mechanism of coordination will be stressed in related implementation guidelines; Related village banks and farmer groups will be involved in all the steps of preparation, implementation and supervision.	Costs (base case) Benefits -20% EIRR 10.2%
	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation	Medium	Mechanism of coordination will be stressed in related implementation guidelines; Related kum bans and farmer groups will be involved in all the steps of preparation, implementation and supervision.	Costs (base case) Benefits (base case) Benefits lagged by 1 years EIRR 11.1%
	The formal banks and registered MFIs are not interested in rural expansion, even with the support of cheaper refinancing capital.	Low to Medium	Expand awareness of the value chain financing possibilities, increase market information, improved technology advice, promotion of producers' groups and market linkages	Costs (base case) Benefits -20% Benefits lagged by 3 years EIRR 7.8%
	NSLCP livestock credit will face the same type of problems in credit delivery and loan recovery as the previous, largely unsuccessful LDP credit operation.	High to medium	Increase efforts to ensure proper rural credit practices are applied and ensure the NSCLP credit management team are properly capacitated	Costs +20% Benefits -20% Benefits lagged by 1 years EIRR 8.2%
Others	Natural calamities including flood and drought lower output of farm production	Medium to High	Improvement of productive infrastructures and adoption of climate-smart technologies and varieties to advance production season will help ease the risk	Costs +20% Benefits -20% Benefits lagged by 2 years EIRR 7.7%
	Uncertainty on CC projections and localized CC impacts and – vulnerabilities with the consequence that proposed resilience measures may not be adequate or appropriate (mal-adaptation)	Medium	The Programme will support land use classification and use planning, including CC vulnerability and adaptation assessments.	Costs +20% Benefits -20% Benefits lagged by 2 years EIRR 7.7%

IV. Programme costs, financing, benefits and sustainability

A. Programme costs

119. The main assumptions underlying the derivation of Programme costs, estimated Programme costs and financing plan are:

- **Programme duration.** The NSLCP-RFSP will have a duration of 5 years, starting in 2017;

- **Prices and costs.** Costs for the NSLCP-RFSP have been inputted in US dollars in the NSLCP-RFSP COSTAB file using data collected as of August 2016. Data were collected by the consultants in the field and with partners, or provided by the MAF NSLCP team;
- **Inflation.** The forecasts of the IMF, the World Bank and the Asian Development Bank estimate a continuing medium level of domestic inflation of between 5-6 percent. US dollar inflation is estimated at 2 per cent for the foreseeable future;

Table 4: Inflation rates (local and foreign)

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Foreign inflation	2%	2%	2%	2%	2%	2%
Local inflation	5%	5%	5%	5%	5%	5%

- **Exchange rate.** The exchange rate of LAK 8,100/USD has been applied for the NSLCP-RFSP costing;
- **Contingencies, taxes and duties.** All imported items attract custom duties: at between 10 per cent and 20 per cent for equipment and electrical goods, at 10 per cent rates for machines etc. Local taxes and VAT are assumed at 15 per cent for civil works. All services are taxed between 10 per cent and 20 percent. Income taxes are applicable to all categories of Technical Assistance at 20 per cent, while international TA under loan financing is exempt from taxes. Salary incomes above LAK 12 million are taxed at 10 per cent.

120. **Total Programme cost.** The total cost for the NSLCP-RFSP is estimated at USD 19.7 million (LAK 169.7 billion) including contingencies. The total base costs are USD 18.7 million (LAK 152.8 billion). Physical and price contingencies account for USD 266,600 and USD 455,200 respectively (1% and 2% of the total base costs respectively). Investment costs are estimated at USD 18.7 million representing 100% of total base cost. The detailed breakdown of the base costs by component is shown in Table 5 and by expenditure account in

121. **Table 6.** The NSLCP-RFSP forms a part of the larger IFAD-ADB financed NSLCP, which has a total value of USD 38.3 million, including USD 21 million of ADB financing.

Table 5: NSLCP-RFSP cost summary by components (in LAK 10,000 and USD 000')

Components Project Cost Summary	(Kip Ten Thousand)					(US\$ '000)				
	Local	Foreign	Total	%	% Total	Local	Foreign	Total	%	% Total
				Foreign Exchange	Base Costs				Foreign Exchange	Base Costs
A. Smallholder Livestock producers adopt productive technology										
1. Smallholder livestock production and marketing groups	3,016,991	50,544	3,067,535	2	20	3,724.7	62.4	3,787.1	2	20
2. Technology development	1,166,036	289,130	1,455,165	20	10	1,439.6	357.0	1,796.5	20	10
Subtotal	4,183,026	339,674	4,522,700	8	30	5,164.2	419.4	5,583.6	8	30
B. Farmers access sustainable and scalable rural financial services										
1. Financial services to SLPNG members	3,763,442	124,919	3,888,361	3	25	4,646.2	154.2	4,800.4	3	25
2. Networked Village Funds in NSLCP districts	3,003,197	1,561,964	4,565,160	34	30	3,707.7	1,928.4	5,636.0	34	30
3. Agriculture Refinancing Facility	919,755	1,016,550	1,936,305	52	13	1,135.5	1,255.0	2,390.5	52	13
Subtotal	7,686,394	2,703,432	10,389,826	26	68	9,489.4	3,337.6	12,826.9	26	68
C. Effective project management	232,025	133,893	365,918	37	2	286.5	165.3	451.8	37	2
Total BASELINE COSTS	12,101,445	3,176,999	15,278,444	21	100	14,940.1	3,922.2	18,862.3	21	100
Physical Contingencies	146,116	69,812	215,928	32	1	180.4	86.2	266.6	32	1
Price Contingencies	941,265	459,284	1,400,549	33	9	305.7	149.5	455.2	33	2
Total PROJECT COSTS	13,188,826	3,706,094	16,894,920	22	111	15,426.1	4,157.9	19,584.0	21	104
Interest During Implementation	-	79,850	79,850	100	1	-	98.4	98.4	100	1
Total Costs to be Financed	13,188,826	3,785,944	16,974,770	22	111	15,426.1	4,256.3	19,682.4	22	104

Table 6: NSLCP-RFSP costs by expenditure account (in LAK 10,000 and USD 000')

Lao PDR Northern Smallholder Livestock Commercialization Expenditure Accounts Project Cost Summary	(Kip Ten Thousand)					(US\$ '000)					
	Local	Foreign	Total	%	% Total	Local	Foreign	Total	%	% Total	
				Foreign Exchange	Base Costs				Foreign Exchange	Base Costs	
I. Investment Costs											
A. Grants and subsidies	2,624,400	64,800	2,689,200	2	18	3,240.0	80.0	3,320.0	2	18	
B. Equipment and Materials	256,001	129,965	385,965	34	3	316.1	160.5	476.5	34	3	
D. Goods, services and Inputs	1,818,896	766,625	2,585,520	30	17	2,245.6	946.5	3,192.0	30	17	
E. Consultancies											
1. International Consultants	348,162	1,392,650	1,740,812	80	11	429.8	1,719.3	2,149.2	80	11	
2. National Consultants	1,690,253	-	1,690,253	-	11	2,086.7	-	2,086.7	-	11	
Subtotal	2,038,415	1,392,650	3,431,065	41	22	2,516.6	1,719.3	4,235.9	41	22	
G. Credit	4,317,705	810,000	5,127,705	16	34	5,330.5	1,000.0	6,330.5	16	34	
I. Training	755,238	-	755,238	-	5	932.4	-	932.4	-	5	
K. Operating costs	290,790	12,960	303,750	4	2	359.0	16.0	375.0	4	2	
Total BASELINE COSTS	12,101,445	3,176,999	15,278,444	21	100	14,940.1	3,922.2	18,862.3	21	100	
Physical Contingencies	146,116	69,812	215,928	32	1	180.4	86.2	266.6	32	1	
Price Contingencies	941,265	459,284	1,400,549	33	9	305.7	149.5	455.2	33	2	
Total PROJECT COSTS	13,188,826	3,706,094	16,894,920	22	111	15,426.1	4,157.9	19,584.0	21	104	
Interest During Implementation	-	79,850	79,850	100	1	-	98.4	98.4	100	1	
Total Costs to be Financed	13,188,826	3,785,944	16,974,770	22	111	15,426.1	4,256.3	19,682.4	22	104	

B. Programme financing

122. **Programme cost by financier.** IFAD will provide a highly concessional loan of USD 10.0 million (50.8%). ADB will provide USD 2.9 million (14.7%). GIZ will provide USD 1.85 million (9.4%). LDP carry over is expected to provide USD 2.4 million (12.2%). Village beneficiary contribution will be USD 0.6 million (3.0%). The Lao PDR contribution is estimated at USD 1.94 million (9.8%). The Government contribution covers taxes, duties, land title survey and ARF credit. There is also a USD 0.1 million ADB charge for interest during implementation. The NSLCP-RFSP financing plan is shown in Table 7. The NSLCP-RFSP forms a part of the larger IFAD-ADB financed NSLCP, which has a total value of USD 38.3 million, including USD 21 million of ADB financing.

Table 7: NSLCP-RFSP financing plan by components,

Lao PDR Northern Smallholder Livestock Commercialization Project Components by Financiers (US\$ '000)													Local					
	GIZ		Beneficiaries		LDP Carry-over		ADB Loan		IFAD Loan		Government		Total		For.	(Excl.	Duties &	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes	
A. Smallholder Livestock producers adopt productive technology																		
1. Smallholder livestock production and marketing groups	-	-	600	15.3	-	-	2,400	61.2	897	22.9	22	0.6	3,919	19.9	73	3,824	22	
2. Technology development	-	-	-	-	-	-	396	21.0	893	47.2	601	31.8	1,890	9.6	394	1,465	31	
Subtotal	-	-	600	10.3	-	-	2,796	48.1	1,790	30.8	623	10.7	5,809	29.5	466	5,290	53	
B. Farmers access sustainable and scalable rural financial services																		
1. Financial services to SLPNG members	-	-	-	-	2,400	49.5	-	-	2,414	49.8	36	0.7	4,850	24.6	170	4,645	36	
2. Networked Village Funds in NSLCP districts	1,850	31.1	-	-	-	-	-	-	3,957	66.5	145	2.4	5,952	30.2	2,036	3,771	145	
3. Agriculture Refinancing Facility	-	-	-	-	-	-	-	-	1,370	56.0	1,077	44.0	2,447	12.4	1,294	1,076	77	
Subtotal	1,850	14.0	-	-	2,400	18.1	-	-	7,742	58.4	1,258	9.5	13,250	67.3	3,500	9,492	258	
C. Effective project management	-	-	-	-	-	-	-	-	468	89.1	57	10.9	525	2.7	192	276	57	
Total PROJECT COSTS	1,850	9.4	600	3.1	2,400	12.3	2,796	14.3	10,000	51.1	1,938	9.9	19,584	99.5	4,158	15,058	368	
Interest During Implementation	-	-	-	-	-	-	98	100.0	-	-	-	-	98	0.5	-	-	-	
Total Disbursement	1,850	9.4	600	3.0	2,400	12.2	2,895	14.7	10,000	50.8	1,938	9.8	19,682	100.0	4,158	15,058	368	

C. Summary benefits and economic analysis

A. Summary benefits and economic analysis

123. The NSCLP-FSP aims to work with a total of 300 SLPNGs in the 12 districts, extending the livestock production and marketing support to at least 5,400 households. Over time, membership is likely to grow beyond the targets as SLPNGs become successful in marketing of livestock following market demand specifications. Successful examples would be showcased to scale out market-oriented livestock production to farmers outside the immediate Programme area. Related infrastructure investments would benefit an additional 10,000 households.

124. The projected household entry into the Programme are shown below in Table 8. It is estimated that the Programme would include a minimum of 200 villages and 20,000 poor smallholder households through access to livestock production technology, financial services and rural infrastructure. The post-Programme benefit resulting from the successful establishment of the planned nationally implemented ARF could be much larger. In Programme districts, villages and households not directly targeted by the NSLCP-FSP would benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district. The NSLCP-FSP would be implemented over a period of five years.

Table 8 - Household Participation Assumptions

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6	PY 7
Incremental households							
Cattle	-	-	589	884	1,473	-	-
Pigs	-	-	393	589	982	-	-
Goats	-	-	98	147	245	-	-
Total	-	-	1,080	1,620	2,700	-	-
Cumulative households							
Cattle	-	-	589	1,473	2,945	2,945	2,945
Pigs	-	-	393	982	1,964	1,964	1,964
Goats	-	-	98	245	491	491	491
Total	-	-	1,080	2,700	5,400	5,400	5,400

The ADB appraisal analysed the financial returns to smallholder livestock production finding that each of the livestock models were financially viable. The NSCLP-FSP design mission has reviewed and where necessary updated the NSLCP base production models and the financial and economic analytical framework. The financial analysis of the NSLCP-FSP therefore extends the ADB appraisal work by examining the impact of financing on three illustrative NSLCP production models. The core question addressed, is whether the production models are financially viable in the face of the investment and operating costs required for small commercial operations? Further, can this be achieved in the face of market based interest rates required to ensure a sustainable rural financial sector. The indicative returns for the three models after financing is shown in

125. Table 9.

Table 9 - Indicative Returns and Impact after Financing

Indicator		Cattle	Pigs	Goats
NPV @ 12.8% p.a.	LAK '000	10,400	7,900	30,300
Benefit/Cost ratio		1.16 x	1.46 x	3.05 x
Return to family labour day	LAK '000	110	70	250
	USD	13.80	8.50	31.50
household own contribution after financing	LAK '000	14,600	4,700	2,900
	USD	1,800	580	360

126. The analysis indicates that production models are able to service a market-based rate of 12.8% per annum. Sensitivity at 24% interest rate – equivalent to some commercial banks – indicates that the all enterprises remain viable. The enterprises are an attractive proposition with the financing available as the threshold in terms of the households' own contributions are lessened and cash flows evened out. Returns per family labour day with financing are best for goats LAK 203,000 (USD 31) and least for pig fattening at LAK 70,000 (USD 9). These rates nevertheless are significant compared to the current income rates.

127. **Economic viability.** The overall NSLCP economic internal rate of return (EIRR) is 11.9 per cent and compares well against 6% the current estimate of the social discount rate in Lao PDR.²⁹ The estimated economic net present value (ENPV) at a 6 per cent discount rate is LAK 172,332 million (USD 21.3 million). The BCR of 2.16 indicating a return of approximately 2.16 dollars for every dollar invested. These results indicate that the Programme investments yield a positive rate of return. **Sensitivity analysis.** An increase in programme costs by 10 per cent would reduce the EIRR to 11.2 per cent, while a decrease in overall programme benefits by 20 per cent would result in an EIRR of 10.2 per cent. A one-year delay in benefits reduces the EIRR to 11.1 per cent and a two-year delay to 10.4 per cent. These impacts in combination do not reduce the EIRR to below the 6 per cent discount rate, indicating the robust nature of the investment.

The estimated LDP PCR EIRR was 15.7% against a social discount rate of 12%, which applied at the time of the project, whereas the EIRR for the NSLCP-RFSP is 11.9% against World Bank-revised social discount rate for Lao PDR of 6%. The very low level of livestock husbandry at the commencement of the LDP allowed for quick, cheap gains in productivity (low hanging fruit argument), whereas the next step in incremental production is more capital intensive and has higher input costs, hence the expected lower rate of return on investment

D. Environment classification

128. In line with IFAD's Social, Environmental and Climate Assessment Procedures, the Programme is classified as Category B. While the Programme's design and implementation activities may have some environmental and social impacts on human populations or environmentally significant areas, these will be small in scale, dispersed and largely site-specific and reversible. The Programme's potential adverse impacts are relatively minor, and these can be prevented or ameliorated by appropriate actions and mitigation measures that will be described in an Environment and Social Management Plan (ESMP) which is a compliance document that accompanies Category B projects.

²⁹ A social discount rate of 6% is assumed consistent with recent WB estimates. Source: World Bank Lao PDR Development Report 2010 Natural Resource Management for Sustainable Development, Background Paper, Wealth and Sustainability. http://siteresources.worldbank.org/LAOPRDEXTN/Resources/293683-1301084874098/LDR2010_Wealth_and_Sustainability.pdf Accessed 06.04.16

Appendix 1: Country and rural context background

1. Over the last two decades, the Lao PDR has experienced an average annual growth rate of 7%, sustained by macroeconomic liberalisation, market-based reforms and large flows of foreign direct investment, mainly into natural resource-based industries (mining and hydroelectricity) and agriculture. High growth has resulted in a steady decline of poverty, with poverty rates declining from 46% in 1992 to 23% in 2015 (UNDP). In terms of the UNDP multi-dimensional poverty index, 50.5 per cent of the population were multi-dimensionally poor in 2014, while an additional 18.5 per cent were near multidimensional poverty³⁰. The intensity of deprivation in Lao PDR, which is the average of deprivation scores experienced by people in multidimensional poverty, was 50.5 per cent. Improved education and health have contributed to increased human development, which has grown by an annual average of 1.57% since 1980. The Lao PDR's HDI value for 2014 was 0.575 — which is in the medium human development category — positioning the country at 141 out of 188 countries and territories: by comparison, Cambodia is ranked 143rd. These achievements have happened against a challenging background comprising a multi-ethnic population scattered over a vast, often difficult to access terrain, and with a multitude of cultures and languages. Progress has, however, unevenly benefitted the population across the country. Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live. In upland areas, the national poverty rate is as high as 43%, compared with about 28% in the lowlands. The poorest groups in the lowlands are those who have been resettled from mountain regions.

2. **Agriculture and Agri-business.** While the GDP share of agriculture³¹ declined from 53% to 24.8% between 2000 and 2014, the primary sector remains the largest source of employment: over 70% of the population still live from agriculture, indicating that the economic growth has created few jobs in other sectors. The agriculture sector's annual growth rate averaged almost 5% at the end of the 90s, but declined thereafter and has been erratic since 2005, varying from less than 1% to just 2.8% in 2012 and averaging just 0.8 per cent per annum between 2000-2012. Much of the growth is due to the expansion of cultivated surfaces to accommodate a rural workforce growing by an annual 2.5 per cent. Although yields are reported to increase across the country, overall sector productivity is still low as indicated by an income per capita in the farming sector that is less than half the national average, and a productivity that is estimated to be 4 to 10 times lower in agriculture than in other sectors. Most of the 650,000 farming households are engaged in subsistence and low productivity activities, producing just enough to support their food and non-food needs. The main factors affecting productivity include a low access to inputs, lack of appropriate technologies, limited access to finance and other support services including extension, limited access to markets, climate risks, as well as farmer's risk averse attitudes. The export of agricultural products, notably paddy and livestock, is subject to re-occurring temporary bans, often imposed without notice, thereby disrupting trade relations and stifling productivity. In comparison, Cambodia's open trade policy has led to a 6% annually increase in paddy production over the last five years, with 1.6 million tonnes exported in 2013, compared to only 0.1 million tonnes in 2008. While rice is Lao PDR's main staple food and accounts for 72% of the total cultivated area, farmers grow a varied range of crops, with diversification constituting their main strategy to mitigate risks. Livestock offers a significant complement of food and cash income, along with non-timber forest resources in the upland areas. Agri-businesses are developing and growing steadily. In the NSLCP-RFSP target area, most agri-businesses comprise small and medium scale Vietnamese, Chinese and, to a lesser extent, Lao traders, some with processing facilities. These traders often work through middle-level intermediaries, operating between farmers and traders. Contract farming is expanding rapidly in provinces with easy access to Chinese markets.

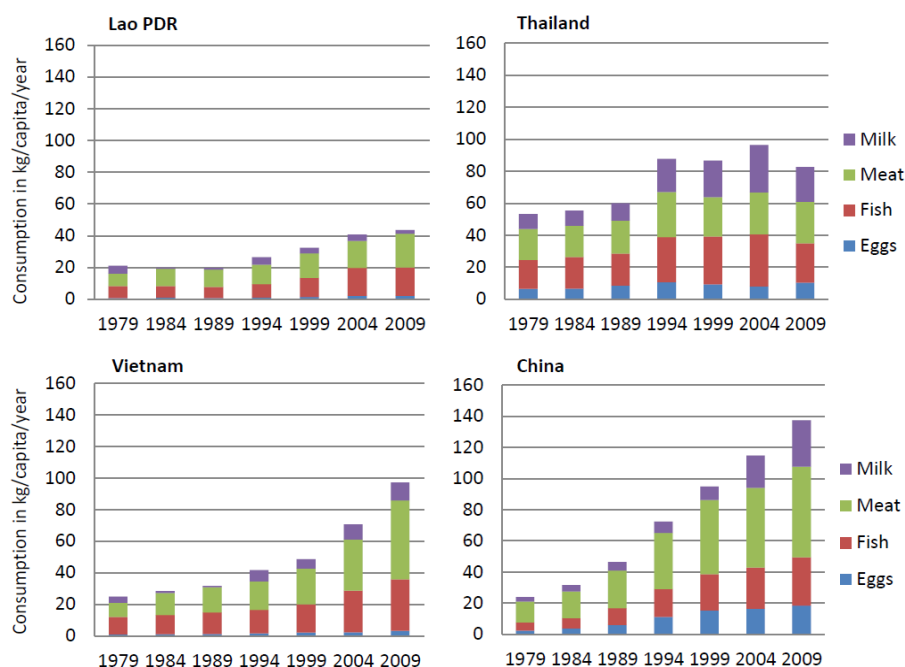
³⁰ UNDP Human Development Index 2014

³¹ Agriculture, fisheries and forestry

3. **The livestock sub-sector** accounts for about 26.6% of national GDP; and, together, livestock and fisheries contribute about 40% of the country's agricultural GDP; growing some 5% per annum since 1998/99.³² About 29% of farm households keep buffalo and 38% own cattle; with the number of farm households with cattle and goats increasing by 43 and 69 percent, respectively between 1999 and 2011; and, the number of households with buffalo and pigs contracting by 30 and 6 percent, respectively.³³ Smallholder livestock production in Lao PDR, which dominates the sector, is generally subsistence based, where ruminants are grazed extensively and pigs and poultry scavenge with supplementary feeding from kitchen waste. Farm size is small with livestock ownership averaging 4.6 cattle, 3.2 buffalo, 3.4 pigs and 18.9 chickens for households who raise livestock.³⁴ Productivity is low with small daily live-weight gains, poor reproductive rates and relatively high mortality. Based on low-input, low-output production systems, livestock are primarily kept as a store of wealth, only to be sold when cash is required. Between 2000 to 2011, all livestock populations have increased, however large ruminant numbers have increased less (buffalo 14%, cattle 35%) with pigs and poultry populations roughly doubling over the eleven-year period (pigs 98%, poultry 101%). This disparity in growth is mostly due to the introduction of bought-in feeds for pigs and poultry, whereas the availability of grazing land for cattle and buffalo is finite.

4. Although population and purchasing power is low, per capita consumption of livestock products has doubled over the last twenty years to about 20 kg/capita/year as incomes have increased, with beef and pork accounting for just over 80% of total meat consumption in Lao PDR. Nevertheless, it is still only half of the consumption in Thailand and one third of the consumption in China (see Figure 1). It is likely that, in Lao PDR, the demand for meat and fish products will double in the next 10-20 years. Fish forms a very significant part of animal protein intake Laos: 50% in rural areas.

Figure 1. Annual per capita consumption of meat, fish, eggs and milk in selected countries in Southeast Asia, 1979-2009³⁵



³² *Lao Census of Agriculture 2010/11, Analysis of Selected Themes*. (2014). Vientiane: Ministry of Agriculture and Forestry, p. 4.

³³ *Lao Census of Agriculture 2010/11*. (2012). Vientiane: Steering Committee for the Agricultural Census, Agricultural Census Office, Department of Planning, Ministry of Agriculture and Forestry, p. x, xv.

³⁴ Agricultural Census, MAF 2011

³⁵ Source: FAO Stat. accessed 3 Dec 2013

5. There are considerable differences in the type of animal products consumed in the four countries. Egg and milk consumption is considerably higher in China and Thailand than in Vietnam and Lao PDR (Figure 1). Pork is the preferred meat in China and Vietnam, poultry in Thailand, and pork and beef in Lao PDR (Figure 2).

Figure 2. Demand for meat types in selected countries in Southeast Asia, 1979– 2009²⁵



6. Based on the current livestock production estimate of 180,000 tons/year, Laos does not produce enough livestock products to satisfy domestic demand. Most meat imports into Laos originate from Thailand, currently amounting to about 85,000 tons per year. Domestic meat supply is also challenged by an increasing demand for live beef cattle export to Viet Nam and China. Given Lao PRD's high domestic meat price, the lack of export certified abattoirs or ancillary services, the increasing regional attention to controlling livestock movement to contain disease spread and the need to compete with established exporters from Australia, New Zealand and USA to gain a market share in those markets, smallholder livestock production in Lao PDR is best targeted at satisfying domestic market demand

7. **Livestock in the Programme districts.** The 2015 livestock population in the Programme districts is detailed in Table 1 below. The change in livestock numbers between 2010 and 2015, is detailed in Table 2 below. These numbers show: (i) a fairly consistent decline in the buffalo population except in Nonghet district; (ii) a large overall rise in the cattle population (up 50%) except in Luang Namtha, where it declined marginally, driven by a significant decline in Sing district; (iii) a significant rise in overall pig numbers (up 20%), but with a significant decline in Houaphan province and large increase in Xieng Khouang; (iv) although the database is incomplete, there has, overall, been a large rise in the sheep and goat numbers, particularly in Sing district, with other districts showing mixed change; (v) little change in overall poultry numbers, but with significant rises in Luang Prabang and Xieng Khouang and a significant fall in Houaphan.

Table 1. Livestock population in Programme Districts in 2015

Name	Buffalo	Cattle	Pig	Sheep/ Goat	Poultry
Luang Namtha	8,148	11,311	55,929	4,562	206,633
Sing	3,820	3,359	25,608	2,537	66,129
Viengphoukha	1,077	3,976	16,935	1,008	79,756
Nalae	3,251	3,976	13,386	1,017	60,748
Luang Prabang	17,668	34,431	50,741	13,829	393,692
Phonexay	5,242	15,056	15,923	4,851	232,359
Viengkham	5,760	9,433	24,076	7,744	110,690
Khoun	6,666	9,942	10,742	1,234	50,643
Houaphan	16,348	17,837	33,348	11,007	291,380
Xiengkhor	2,806	5,982	11,068	7,170	76,133
Aed	6,612	3,665	12,123	2,267	90,123
Viengxay	6,930	8,190	10,157	1,570	125,124
Xieng Khoung	18,691	53,052	54,075	8,760	313,032
Khoun	8,720	18,045	21,323	2,152	129,004
Phaxay	4,198	9,806	2,980	428	69,315
Nonghat	5,773	25,201	29,772	6,180	114,713
Total	60,855	116,631	194,093	38,158	1,204,737

Table 2. Percent change in livestock population in Programme districts, 2010 - 2015

Name	Buffalo	Cattle	Pig	Sheep/ Goats	Poultry
Luang Namtha	-31.3%	-1.4%	20.5%	14.1%	5.4%
Sing	31.0%	-48.5%	94.5%	612.6%	-40.0%
Viengphoukha	-74.0%	35.1%	-6.6%	35.8%	136.0%
Nalae	-32.5%	98.8%	-11.4%	-64.9%	16.9%
Luang Prabang	-16.6%	69.8%	-7.2%	19.0%	35.5%
Phonexay	-1%	69%	49%	1%	261%
Viengkham	-27%	70%	-26%	34%	-41%
Khoun	NA	NA	NA	NA	NA
Houaphan	-13.5%	36.7%	-34.5%	NA	-31.5%
Xiengkhor	-42.8%	154.0%	-31.8%	NA	-57.8%
Aed	6.2%	358.7%	29.6%	NA	14.9%
Viengxay	-10.8%	-17.2%	-59.9%	NA	-24.9%
Xiengk Khoung	9.3%	36.0%	145.8%	-10.2%	32.8%
Khoun	-0.6%	33.8%	1538%	-18.6%	62.1%
Phaxay	-22.3%	7.4%	-0.3%	23.0%	20.0%
Nonghat	97.2%	53.8%	68.1%	-8.6%	16.6%
Total	-0.3%	49.6%	19.5%	56.8%	8.5%

8. Table 3 details the number of animals per person as an indicator of self-sufficiency and capacity to trade livestock commercially, with higher numbers indicating a greater potential to trade. For cattle, the indicator is highest in Xieng Khouang, followed by Luang Prabang, with both Houaphan and Luang Namtha having significantly fewer cattle/capita. For buffalo, where, on average, the number per capita is a half of that for cattle, the indicator is lowest for Luang Namtha, and similar for Luang Prabang, Luang Namtha and Xieng Khouang. Pig numbers per capita are similar for Luang Namtha, Luang Prabang and Xieng Khouang, but significantly lower for Houaphan, which, along with

Luang Prabang has relatively higher levels of sheep & goats per capita. Poultry per capita are highest in Luang Prabang, similar in Houaphan and Xieng Khouang and lowest in Luang Namtha.

Table 3. Animal number per capita (number of animals/human population), 2015

Name	Buffalo	Cattle	Pig	Sheep/ Goat	Poultry
Luangnamtha	0.09	0.13	0.64	0.05	2.38
Sing	0.10	0.09	0.65	0.06	1.69
Viengphoukha	0.05	0.17	0.71	0.04	3.35
Nalae	0.14	0.17	0.56	0.04	2.54
Luangprabang	0.21	0.41	0.61	0.16	4.70
Phonexay	0.17	0.48	0.51	0.16	7.44
Viengkham	0.19	0.32	0.81	0.26	3.74
Khoun	0.29	0.43	0.47	0.05	2.20
Houaphan	0.19	0.20	0.38	0.13	3.33
Xiengkhor	0.10	0.22	0.40	0.26	2.78
Aed	0.20	0.11	0.37	0.07	2.73
Viengxay	0.26	0.30	0.38	0.06	4.64
Xiengkhouang	0.22	0.63	0.64	0.10	3.69
Khoun	0.23	0.48	0.56	0.06	3.40
Phaxay	0.12	0.29	0.09	0.01	2.03
Nonghat	0.46	2.00	2.36	0.49	9.09
Average in Project Districts	0.18	0.34	0.57	0.11	3.53

9. Livestock husbandry and production systems.

While the LDP led to some improvement in animal husbandry, including keeping animals in pens, providing cut forages and water, growing forages (and replacing some less productive rice fields with forage crops), deworming and vaccinations, the adoption of these technologies is not yet widespread, or sufficiently comprehensive, even in households practicing improved production. Animal housing is often basic, difficult to keep clean and lacking water supply and manure management systems. Forage supply focuses on grass production, including some grass varieties of relatively low nutritional value, with sub-tropical legumes only used sporadically, predominantly *stylosanthes guianensis*, when legumes such as *Leucaena leucocephala* grows abundantly in the region but is largely unutilised. Access to high quality forage genetic material is poor. Vaccines are difficult to access, being generally only available from the local DAFO if/when they are supplied. Veterinary drugs are relatively more readily available, but not always easy to access and can be of dubious provenance. The lack of permanent water supply to intensively reared animals is a major constraint to improved productivity. Farmers understanding of herd health management and animal condition and weight assessment is weak.

Transboundary Disease Risk

The NSLCP is not in a position to manage transboundary disease risk. Weak implementation of sanitary controls in the Lao PDR slaughterhouse system prevent the export of chilled carcasses except from a few vertically integrated livestock production systems, with most export trade in local livestock being on foot across numerous undesignated border crossing points. This risk is being partially offset by the importing countries (primarily China and Viet Nam) installing or planning slaughterhouses close to key crossing points to minimise contact between trekked imported animals and local livestock populations. Beyond the life of the NSLCP, its contribution to upgrading some domestic slaughterhouses and sanitary certification systems will contribute to the wider adoption of internationally accepted sanitary controls in Lao PDR.

10. Livestock production systems include:

- (i) *traditional smallholder farmers*, often in remote locations and focused on diversified livestock production where pigs and chickens may be sold for cash or used for village ceremonies and social commitments, but rarely eaten, and cattle and buffalo are used for capital accumulation and sold when a large amount of cash is needed. Most animals in these systems scavenge for food across a declining natural resource base and are managed by household labour;
- (ii) *Diversified crop-livestock smallholder farmers with increasing market-orientation*, located in areas with ready or improving market access and specialised in several crops and livestock products, but who remain diversified and flexible. These farmers are adopting some improved animal husbandry practices, including forage production, but are often constrained by low labour availability and access to capital. Animals are sold locally and mostly consumed within districts or other nearby markets;
- (iii) *Small-scale commercial livestock producers*. These farmers mostly focus on producing particular livestock products such as pork, poultry meat or eggs, are often located in peri-urban areas or occasionally in rural areas with good market access, mostly buy all of the necessary inputs such as feeds and use a mix of family and employed labour. They typically have reasonable access to markets, understand market demand and are highly responsive to changes in demand and opportunities;
- (iv) *Commercial livestock enterprises* are run a commercial business, often with several products and with some vertical integration. They are capital intensive, tend to be managed and operated by employed staff and often sell feed and other inputs such as piglets to farmers and contract growers. They are often located in peri-urban areas or in rural areas that are well connected to markets for input supplies and sales and frequently develop and supply high-end markets including supermarkets.

11. **Livestock markets, marketing and value chains**³⁶. These livestock production systems supply three types of markets

- (i) *Rural markets*. These markets supply the vast majority of Lao people in northern Lao PDR where farm households make up the majority of the total population¹⁰. While incomes are lower than in urban areas, the shift from traditional smallholder to market-oriented smallholder systems is bringing new customers to these markets. Increasingly, rural households are purchasing meat in rural markets and from mobile meat traders visiting villages in the district as farmers produce more products for sale and use earnings to buy food rather than produce their own;
- (ii) *Provincial urban markets*. Meat sales in the provincial markets in the Programme area is relatively small, with these markets selling 10-20 mostly Moolath pigs and 5-10 cattle or buffalo daily. Typically, animals are slaughtered at slaughter points near the city by traders. Many pigs and cattle produced in the Programme districts move to Xieng Khouang and Houaphan for export. In Luang Prabang, this meat supply is supplemented with lean, cross bred pigs imported from Thailand and slaughtered locally, and from some vertically integrated commercial farms around the town, primarily owned by Chinese investors, Chicken supply to provincial markets includes roughly equal proportions of locally produced birds and chilled/frozen chicken from Vientiane. The demand for sheep and goats in provincial markets is low. Overall, there has been a shift in consumption from beef to pork (and chicken), which may have been caused by the

³⁶ For a detailed discussion on livestock markets and value chains in Lao PDR, see the ADB PPTA Paper Livestock value chain optimization and public private partnerships for livestock processing facilities: Adam Sendall, 2015 (In Programme Life File)

higher price and lack of supply of beef. The proportion of local pig meat in the market has also declined significantly;

- (iii) *Export markets.* The Lao PDR live animal export trade shifted in the mid-2000's from Thailand, to Viet Nam and China. Most animals are exported informally, being walked across borders without documentation. This is related to the lack of formal bilateral trade agreements and transaction costs. The number of animals exported is not documented, however, one 2009 study³⁷ estimated the flow of cattle from Xieng Khouang to Viet Nam at approximately 15,000 head of cattle and buffalo per month, of which approximately 2/3rd are buffalo and 1/3rd cattle. This number is likely to have increased substantially in recent years, in line with the 50 per cent increase in the cattle population in northern Lao PDR between 2010 and 2015. Lao PDR export of livestock products is constrained by (i) relatively low levels of livestock production, limiting capacity to guarantee trade volumes; (ii) the lack of internationally recognized Sanitary and Phytosanitary (SPS) standards and diagnostics and testing for animal health and food safety; (iii) the absence of an operational export standard abattoir; (iv) weak endemic disease monitoring and control; (v) by regional standards, high domestic meat prices, particularly for pork and beef; and (vi) somewhat arbitrary provincial and national policy decisions impacting on market prices and livestock movement, both in and between provinces and to export markets.

12. **Government intervention in the livestock sector.** Meat prices, along with other strategically important commodity prices such as rice, are fixed by the State Enterprise and Food Crop Promotion (SEFCP) at the provincial level. The function of SEFCP, as defined under guideline No. 06/PM, dated 23/3/1999 from the Prime Minister's Office is to:

- Implement government policies for regulating the supply of rice and meat, controlling prices in markets under the direction of the Provincial Department of Commerce.
- Organize cooperative groups for purchasing live animals, organize the slaughtering of animals and the wholesale and retail sales of meat.
- Adjust the prices of meat and rice for each period by government directive.
- Mobilize the population to follow government regulations and decrees.
- Coordinate with other relevant government agencies to promote production, management and inspection of any activities under the SEFCP responsibility.
- Promote payment in local currency for animal and other commodities.
- Eliminate illegal trade, enforce slaughtering of animals in slaughterhouses and abattoirs.
- Control the trade of live animals inside and outside provincial borders.
- Control quality, scale weights and meat grading in order to protect consumers.

13. The Programme design team has observed MoIC-led market price setting in retail markets in all Programme provinces, however, the extent to which those proscribed prices are applied by meat retailers is variable, with compliance possibly highest in Houaphan province.

14. **Livestock marketing licenses.** Since 2009, a new trade license for livestock has been required to be obtained at the provincial level by: (1) making a written request to PAFO; and (2) contacting the Provincial Industry and Commerce Office (PICO) to issue the license upon approval from the PAFO. The license can be used for trade, slaughter and/or retail, and it can be used throughout the country. Most village traders do not possess trade license, which means that they only operate at village level.

15. Apart from requiring a trade license as mentioned above, traders of large ruminants must also comply with trade procedures from three main district authorities, namely (1) the District of Agriculture and Forestry Office (DAFO); (2) the District of Industry and Commerce Office (DICO); and (3) the District Finance Office (DFO). Interprovincial and trans-boundary trade requires movement permits

³⁷ FAO ADB and OIE SEAFMD Study on CrossBorder movement and market chains of large ruminants and pigs in the Greater Mekong SubRegion, October 2009

consisting of documents obtained from different offices against the payment of fees and taxes. Taxes are variable (per head), while fees are fixed (per set of document). Bulking animals thus helps reduce permit cost. The latter may vary across districts.

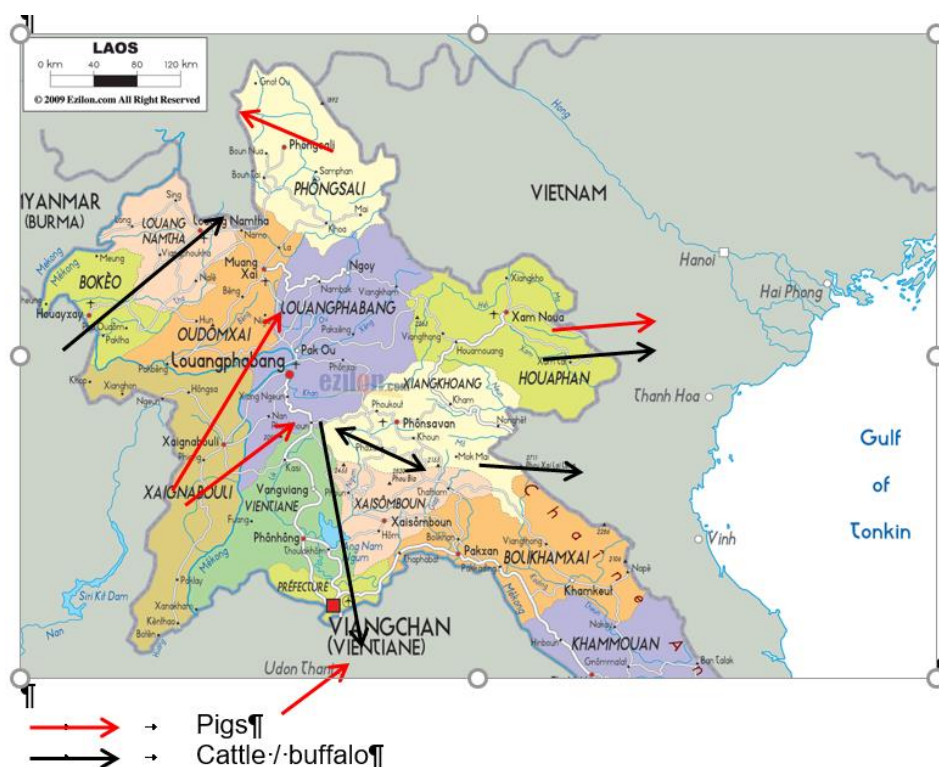
16. **Livestock value chain development**³⁵. Value chain analyses in Lao PDR have shown smallholders engaging in market-oriented livestock production are disadvantaged by poor access to input supplies, services and rural financial services, insufficient market linkages and information, long marketing chains, low sale volumes and at some locations depressed prices caused by local government policies (see para. 15 below). One of the most critical next steps for smallholder livestock development is to better link farmers to markets and market information. Farmers, traders and extension workers need to understand market demand and farmers need assistance with improving their production systems to achieve the required quality. Improved market linkages will provide farmers with the incentive to further develop their production systems

17. There is a need to investigate options for forming smallholder livestock marketing groups as a way of enabling farmers and local traders to market larger volumes, as well as improving the bargaining power of smallholder producers. Assisting farmers and local traders with developing a consistent supply of quality animals will enable them to access larger urban and international markets.

18. Therefore, optimizing the efficiency of smallholder livestock value chains requires a transformation based upon four key interventions: (i) channeling support into production clusters to achieve a critical mass of production that attracts the interest of investors and traders; (ii) increasing the production capacity of smallholders through the use of smallholder inclusive business models, (iii) developing producer organizations to improve market linkages on a commercial basis, and (iv) quality improvement along the supply chain to add value.

19. **Spatial Commodity Flows.** Figure 3 shows the main trade routes for pigs and buffalo/cattle in the northern provinces. Locally produced livestock are generally consumed within the province, with the exception of cattle and buffalo in Xiang Khouang and Luang Prabang which are also sold to Vientiane and Vietnam. In general, the supply of beef within each province is sufficient to satisfy local demand, however, the local supply of pork isn't and live pigs are imported from Thailand to fill the gap.

Figure 8: Livestock Trade Routes

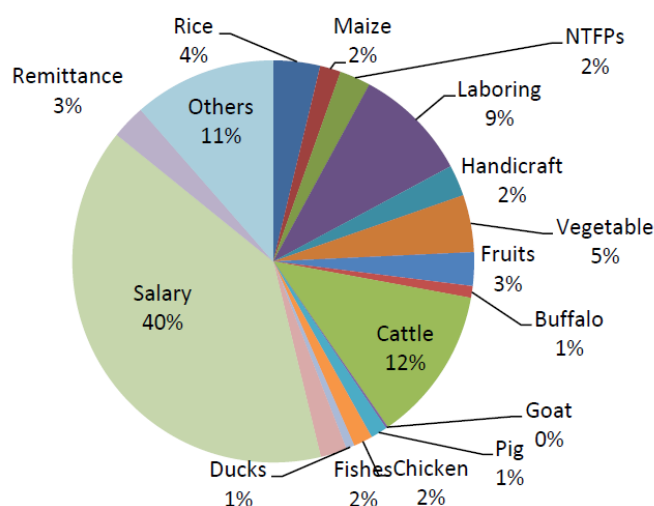


20. **Future ASEAN developments:** In response to the ASEAN agricultural sector challenges, a new Strategic Plan for the agriculture, fisheries and forests sector for 2016 to 2025 has been

prepared. The Strategic Plan has been designed to guide ASEAN towards the completion of the millennium development goals and the post-2015 sustainable development goals. It is significant that the Strategic Plan also highlights that much remains to be done to establish the AEC Pillar 1 goal of a single market and production base in food, agriculture and forestry. The ASEAN vision of ASEAN Cooperation in Food, Agriculture and Forestry towards 2025 contends that farmers can survive only if they can meet the higher market standards, adopt new technologies, and undertake changes to be more competitive. Moreover, the 2016 to 2025 Strategic Plan recognizes that these ASEAN farmers must be assisted to successfully transform themselves into viable modern enterprises. The Strategic Plan also emphasizes that the ASEAN farmers are “small producers” and are much more vulnerable to external shocks and risks.

21. **Household Income.** A recent FAO study³⁸ highlights the significant role of seasonal off-farm employment in smallholder households' livelihoods. Figure 4, describes the income composition of interviewed upland cattle smallholders. It shows that the major incomes were from salary (40%), followed by selling cattle (12%), and remittance and other activities (15%) and labouring (9%). Income gained from selling cattle was higher than any other agricultural activities of the interviewed households. This trend for non-farm income forming more than 50% of household income is also demonstrated in recent GIZ household surveys, and indicates a propensity to service larger levels of borrowing for agricultural activity, including livestock production.

Figure 4. Income composition of smallholder upland farmers



Source: Field survey, 2014

22. **Challenges and trends.** The Lao PDR moved from a rice deficit situation in 1996 to surplus production in 2006. Accessibility to rice as well as to protein sources, however, is highly contingent on geography and on income levels. In 2007, it was estimated that only about one third of the rural population of Lao PDR was food secure. More worrying, it was found that malnutrition is as high today as it was ten years ago, with 44% of children under the age of five in the rural areas that suffer from stunting. Factors of vulnerability include: (i) *the loss of access to natural resources*, including land and forest resources, due to the development of concessions, resettlement operations as part of the government's policy of village consolidation, and the expansion of cultivated surfaces; (ii) *climatic changes, including extreme climatic events* such as floods and droughts, which are perceived to become more frequent and severe, and increased temperature, rainfall variability and late onset of rainy season, leading to crop losses and reduced productivity from livestock due to declining fodder availability; (iii) *declining soil fertility* due to government restrictions on shifting cultivation, which is not

³⁸ Pro-Poor Policy Analysis on Cattle Productivity and Industry in Lao PDR, FAO Draft report, 2014

compensated by improved agronomic practices; (iv) *sudden increase in food prices*, mostly due to seasonality but also to droughts and floods as well as evolution of world prices; and (v) unexploded ordinance (*UXOs*), with an estimated 30% of bombing of the 1963-73 war that did not explode and are still to be found in the forest, fallow land, or even cultivated areas.

23. **Climate Context.** Lao PDR has a tropical climate, which is influenced by the southeast monsoon that causes significant rainfall and high humidity. The climate is divided into two distinct seasons: rainy season, or monsoon, from May to mid-October, followed by a dry season from mid-October to April. The average annual rainfall is about 1,300 – 3,000 mm. Average temperatures in the northern and eastern mountainous areas and the plateaus are 20°C, and in the plains 25-27°C. For the year 2006, the average temperature for the country was 26.5°C.³⁹ On the basis of its altitude, Lao PDR is divided into three different climatic zones, as follows:

- The northern mountainous areas above 1,000m have a montane temperate and hilly sub-tropical climate. There are relatively dry, with an average rainfall between 1,500 to 2,000mm. Temperature ranges are lower than the rest of the country.
- The central mountainous areas in the Annamite Chain range in altitude from 500-1,000 m (with some mountain peaks >2,000 m). They have a tropical monsoonal climate with a higher temperature and higher average rainfall than elsewhere which ranges from 2,500 to 3,500 mm.
- The tropical lowland plain and floodplains along the Mekong River and its main tributaries include the plains of Vientiane, Borikhamxay, Khammouan, Savannakhet, Champasack, Saravane, and Attapeu Provinces.

24. Given the typical tropical climate, the country has pronounced wet and dry seasons that deliver about 1,500 to 2,000 mm of rainfall annually, benefiting the majority of its lowland rice producing areas.⁴⁰ The highlands, mostly in the Northern part, receive more than 2,000 to 3,000 mm of rainfall yearly giving significant amount of water for agriculture in these areas during the wet season.

25. **Climate Change**⁴¹. In terms of greenhouse gas emissions, Laos used to be a net carbon sink, however, due to rapid deforestation driven by both legal and illegal logging, commercial concessions and large mining and energy projects, combined with forest degradation linked to slash-and-burn cultivation, the country has now become a net emitter of greenhouse gases. A study on CC mapping for Southeast Asia, sponsored by the Economy and Environment Program for Southeast Asia (EEPSEA) ranked the Lao PDR as one of the most vulnerable countries in the region⁴². This is mainly due to its high dependence on climate-sensitive natural resources and low adaptive capacity. The key CC vulnerabilities in the Lao PDR are caused by flooding and droughts, with agriculture (and those who depend on it) the sector most vulnerable to CC. Besides agriculture, transportation, communications, housing and utilities account for more than 80 percent of total flooding damages, with even wider impacts linked to loss of livelihoods and food insecurity. On average, floods and storms affect about 200,000 people and kill about 40 people in Lao PDR annually. Large disasters can cause damage of as much as 1% of GDP (World Bank and United Nations, 2010); for example, in 2009 losses from Typhoon Ketsana reached USD 57.5 million, the equivalent of 1.1% of GDP (Lao PDR, 2009). Vulnerability assessments show that households in most part of the country are already highly vulnerable to climate variability, with the situation likely to be more severe in the future. Three provinces have particularly high risk of floods, while six have high risk of droughts. Provinces with the largest proportion of villages at high risk of flooding include Xieng Khouang, Sekong and Attapeu,

³⁹ National Statistics Center (2006) Ministry of Planning and Investment, Government of Lao PDR

⁴⁰ Ministry of Agriculture and Forestry and Science Technology and Environment Agency (2004): The Biodiversity Country Report, The Lao PDR. (2004)

⁴¹ See the Programme Social and Environment and Climate Assessment Procedures Review Note for a detailed discussion on climate change impacts

⁴² Yusuf A. A. and Francisco, H. A., 2009, Climate Change Vulnerability Mapping for Southeast Asia, IDRCSIDA-EEPSEA-CIDA.

while those with a larger proportion of villages at high risk of droughts are Savannakhet and Houaphan. Moreover, as time passes the risks tend to expand from north to south.

26. Regression analysis shows that the annual mean temperature in Southeast Asia has consistently increased over the past 40 years.⁴³ Likewise, such analysis shows that the annual mean temperature in Lao PDR has risen by an average of 0.017 C/year for a total 0.85 C over the period between 1951 and 2001. The temperature changes are not uniform within the country, but show regional variations, with the greatest increases occurring in the southern parts of the country.

27. Rainfall patterns⁴⁴ as differentiated by the total amount of rainfall during wet and dry seasons, indicate that some parts of the country tend to have relatively high rainfalls, including provinces in the north and north-west (e.g. Phongsaly, Oudomxay, Bokeo, Xayabury, Vientiane and Borikhamxay), while there are areas which are relatively drier in parts of Xayabury and Vientiane. In general, it can be said that many parts of the country are relatively rich in rainfall, while others are drier; such variance could happen even within the same regions. Historical rainfall data indicates the increasing trends of seasonal and annual rainfall in the country, with rates of 2,046 and 2,741mm/year respectively. These upward trends are associated with the increased frequency of extreme events related to heavy rainfall in the region. Using probability analysis, it was found that the monthly rainfall with an intensity of more than 600 mm has increased, while intensities between 300-500mm declined.⁴⁵

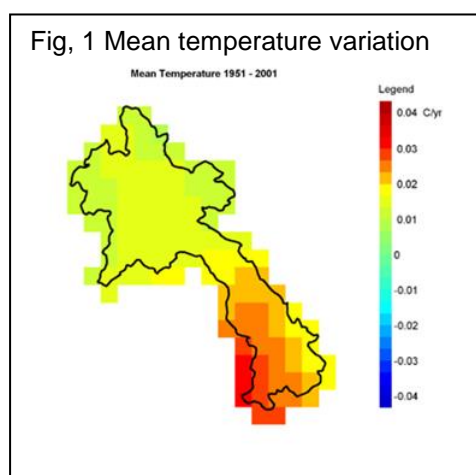
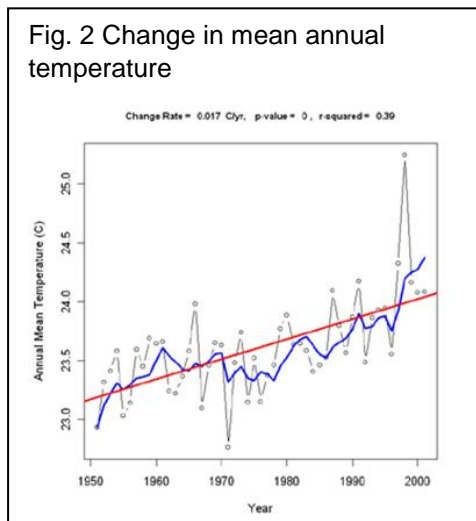
28. Due to a general lack of capacity and resources, the Government of Lao PDR and its institutions have not yet been able to conduct their own research or studies using climate change models to forecast future climate scenarios. At present in Lao PDR, only short term climatic conditions can be forecasted using available resources such as statistical data, actual occurrences, monthly weather monitoring and measurements (temperature, amount of rainfall, regularity and disaster severity) as well as environmental change conditions. However, data and predictions presented extracted from a number of sources, recognize the following changes:

- Temperature Increases – an increase in annual temperature of approximately 1.4 to 4.3°C, by the end of the 21st century, although regional differences are projected with the south experiencing more rapid warming;
- Increasing precipitation – a trend of increasing precipitation between 10-30% in the eastern and southern areas, and around 4.2% in the northern areas;
- Changes in number of hot and cold days – Changes in the number of annual hot and cool days will be prominent. Hot days that are defined as the number of days with a maximum temperature over 33°C, will increase by 2-3 weeks and the cool days, which

⁴³ Source: Climate Wizard - <http://climatewizard.org/>

⁴⁴ Rainfall patterns in Lao PDR are divided into eight groupings, with higher numbers representing more average monthly rainfall.

⁴⁵ Second National Communication on Climate Change of Lao PDR (2013), UNFCCC



are defined as days with a minimum temperature under 15⁰C, will be reduced by 2-3 weeks throughout the region;

- Extreme weather events – the magnitude and frequency of extreme weather-related events are also expected to increase resulting in increased risk of flooding, but a reduction in the likelihood of droughts/low-flow periods, but critically assuming that water extraction is kept at a sustainable level;
- Runoff – a 21% increase in the runoff for the Mekong delta by 2030 that would maintain or improve annual water availability in call catchments.

Climate change adaptation strategies, policies and programs in Lao PDR. The Government of Lao PDR ratified the UNFCCC in 1995 and the Kyoto Protocol in 2003. The country completed the Initial National Communication (INC) in 2000 and the Second National Communication (SNC) to the UNFCCC was completed in 2013. The Department of National Disaster Management and Climate Change is designated as the national focal point for the UNFCCC. The National Capacity Self-Assessment (NCSA) identifies the needs and assesses the capacity of the country in the implementation of the Rio conventions, which the Government has ratified (e.g., UN Convention on Biological Diversity, UN Framework Convention on Climate change, UN Convention on Combating Desertification).

29. The National Climate Change Strategy 2010 is aligned with vision of sustainable development, poverty reduction, enhanced quality of the natural environment, and strengthened public health for all Lao people. The strategy centers on four goals: (i) Reinforce the Sustainable Development Goals of Lao PDR, including measures to achieve low-carbon economic growth; (ii) Increase the resilience of key economic sectors and natural resources to climate change and its impacts; (iii) Enhance cooperation and partnerships with national stakeholders and international partners to implement national development goals; and (iv) Improve stakeholders' public awareness and understanding about climate change vulnerabilities and impacts. The strategy prioritizes adaptation and mitigation in key such sectors as (i) agriculture and food security; (ii) forestry and land use change; (iii) water resources; (iv) energy and transport Industry; (v) urban development; and (vi) public health. The National Climate Change Strategy supports the long-term development goals and priorities of the draft 8th National Socio-Economic Development Plan (2016-2020), and the main thrust of addressing risks and vulnerabilities, which is part of the Agricultural Development Strategy (2011-2020); and it will promote synergies with the eight programmes of the Agricultural Master Plan (2011-2015), the National Disaster Management Plan (2011-2015) to create a more disaster resilient nation.

30. The National Committee on Climate Change remains a concept only. The institutional set-up in the country tends to assign many responsibilities to the Water Resources and Environment Administration (WREA) and there is a risk of thematic and logistical overload. As it is in many countries, the most essential linkages between irrigation, water management and agricultural extension are not sufficiently well spelled out in policy documents and neither is the issue of coordination between these critical areas resourced. While there is greater opportunity for horizontal engagement at province, district and kum ban level, there is much more limited capacity at these levels and a tendency to look for guidance from higher levels rather than to attempt pragmatic action on the ground. An overview of the main CC projects in Lao PDR is detailed I Appendix 1, Annex 1.

31. **Land and forest policy allocation.** Community forestry supports local level climate change adaptation by enhancing resilience in multiple ways: supporting livelihoods and income, increasing food security, leveraging social capital and knowledge, reducing disaster risks and regulating microclimates. The National Growth and Poverty Eradication Strategy (2004) mentions CBFM as a high priority in its operational framework. The National Forest Strategy to the Year 2020 goes further, highlighting the need to enhance 'village-based natural resource management for poverty eradication as its second key policy direction, however, community-based forest management in Lao PDR lacks a strong legal standing. The majority of communities in Lao PDR who rely most on forest resources do not have secure use or management rights over them. The Constitution of Lao PDR stipulates that

"Land is the property of the community and the state guarantees the usufruct, the right of transfer and inheritance" (Article 15)". In addition, the constitution says "all organizations and individuals in Laos must conserve the resources of land, forests, animals and water including underground, and also atmospheric environment and natural resources" (Article 17)". A series of legislation during the early 1990s⁴⁶ led to the development of the Land and Forest Allocation (LFA) Programme, which recognized the rights of communities and individuals to use and manage resources. While potentially positive for forest custodians, the changing legislation frequently led to the loss of access by villages for *swidden* agriculture and non-timber forest product (NTFP) usufruct rights. In some cases, the resulting lack of alternative livelihoods after LFA and the loss of food security have forced some upland villages to relocate. Another issue is that LFA governing bodies at the local level may not represent the interests of those who are dependent on forest and forest products. Among the eight land types classified by the land law, the right to utilize forest land is prescribed by the forestry law in detail. Among these forest types, the forests for which the right to utilize can be granted to organizations or individuals are only degraded forest lands. While local people may have strong customary rights over forest lands and the rights to manage and utilize forest resources, they do not collectively own the land and cannot lease, transfer, sell, or use the land as collateral. In production forests, community members may work with local government authorities on conservation and management projects within the village boundary, including permission to collect and sell NTFPs and harvest timber for domestic use, but only in accordance with the regulations as adopted by the District Agriculture and Forestry Office (Article 28, Forestry Law). Despite these multiple constraints, there are a number of cases where communities and Provincial governments have collaborated effectively to establish sustainable CBFM programmes, often including agroforestry production. The government is undergoing a formal process of large-scale land reform, with an emphasis on enhancing the effectiveness of land policy implementation, and to enhance capacity for local land management. The Ministry of Natural Resources and Environment (MoNRE) is working closely with the Lao PDR National Assembly to develop the new Land Use Policy, which is expected to be approved by Parliament in October 2016.

32. In accordance with the Land Law (No.04/NA, 2003), the Decree on the Implementation of the Land Law (No.88/PM, 2008) and the more recent Ministerial Directive on Land Registration and Titling (No.6036/MoNRE, 2014) land for persons using the land can be registered and titled under the following circumstances:⁴⁷

- in case the land user can produce a "complete set of legal documents", which is rarely the case and virtually inexistent in rural areas;
- in case the person using the land "has incomplete documents, but it is recognized that the land parcel has been developed, protected, used continuously, openly, and peacefully; furthermore, the land must not be located in the State reserve area";
- in case "the beneficiary receives the right to use land as part of a land exchange deal or as land re-allocation for compensation";
- in case the person has "the traditional (customary) right to use the land, in which the person who occupies and uses the land has protected, developed, and used the land in a peaceful, open and continuous manner for a long time, however he/she does not yet have documents to prove how he/she has taken the land into possession, and this land parcel is not located in a State reserve area. In such instance, the village chief and those who occupy and use the adjacent land parcels need to validate the claim";
- in case the person has "the right to use the land in which the person who has occupied and used the land has also protected, developed, and used the land belonging to other persons with all sincerity, peacefully, openly, and continuously for more than 20 years";

⁴⁶ Prime Minister Decree #186 of 1994 and Instructions for land-forest allocation, management and use (No.822/AF) and Prime Minister's Decree on Land Titling, No. 88 of 3 June 2006

⁴⁷ Extracted from Systematic Land Registration in Rural Areas of Lao PDR: Concept Document for countrywide application. GIZ, September, 2015

- in case the land user can produce a “temporary land use certificate” issued under the national land use planning/land allocation programme and has developed and used the land continuously.
33. In order to be considered for registration and titling any “private” land parcel must fulfil the following conditions:
- land must be continuously and permanently used for at least three years; this is for example applicable for paddy fields, gardens, orchards, small tree plantations, fishponds etc.; this excludes upland (swidden) rice or maize fields from registration as “private” land. Undeveloped agricultural land of any kind cannot be registered and titled;
 - all residential lands must have access to a road either by permanent access or passage way (easement); residential land can be considered for individual titles in case of existing buildings on the land, in case of houses/buildings under construction or vacant land if the rights of the land use can be confirmed under the conditions mentioned above;
34. The holders of land use rights have the following five rights:
- right to protect the land (this is the right to exclude others and to possess the land);
 - right to use the land (this is the right to use land for certain purposes in order to provide for the needs of the land title holder);
 - right of usufruct (this is the right to collect the usufruct or income from such land, such as from the lease of land, or from the use of land as a share contribution or guarantee);
 - right to transfer the land use right (this is the right to transfer to other natural persons or juridical entities by sale, donation or exchange);
 - right relating to inheritance of the land use right (this is the right to pass land use rights over developed land to one’s husband or wife, children, grandchildren, parents or close relatives upon the death of the holder of land use rights).
35. Land use rights as documented by a land title are permanent rights and can in accordance with the Law (Art.63) only be terminated in the following cases:
- the land use rights are voluntarily relinquished;
 - the land is requisitioned by the State for public purposes;
 - transfer to another person;
 - death without any heir.
36. It is important to note that private or individual land titles can be issued:
- in the name of a woman alone (e.g. in case of inheritance from her parents or other relatives, or in case of single women);
 - in the name of a man alone (e.g. in case of inheritance from his parents or other relatives, or in case of single men);
 - in the name of a couple (husband’s and wife’s name on the title, e.g. when the land was jointly developed and cultivated, from land purchase or inheritance);
 - in the name of several individuals as a joint possession in case of undivided land inherited from the parents or other relatives.
37. **Ethnic People.** Laos has the most ethnically diverse population on mainland Southeast Asia. The population includes about forty-nine ethnic groups and more than 240 subgroups. The majority of Laos’s population is Lao which accounts for 55 per cent of the whole population, The Lao Government categorizes its many ethnic minorities into three broad groupings; Lao Loum (Lowland Lao), Lao Theung (Upland Lao), and Lao Soung (Highland Lao). The Lao Loum constitute the majority of the Lao population, at around 68 per cent, and live along the banks of the many rivers of Laos, in particular along the Mekong River. The Lao Loum consist of 12 ethnic groups; Lao, Lue, Lu, Phouan, Saek, Tai dam, Tai deng, Tai khao, Tai meuy, Tai neua, Tai Nyee, and Yang. Generally, they live in large groups located in lowland valley areas where it is convenient for communication, transportation, trading and planting rice and other agricultural production. In terms of economic development, Lao

Loum are better-off than other groups in Laos. Buddhism is the main religion, practised by almost 90 per cent of the Lao Loum.

38. The Lao PDR 1991 Constitution refers to the “multi-ethnic Lao people” and the official terminology for describing the diverse population is “ethnic” groups. Article 8 of the Constitution proclaims that: “The State pursues the policy of promoting unity and equality among all ethnic groups. All ethnic groups have the rights to protect, preserve, and promote the fine customs and cultures of their own tribes and of the nation. All acts of creating division and discrimination among ethnic groups are forbidden.

39. The Lao Theung group embraces the Austro-Asiatic linguistic family. This group accounts for about 22 per cent of the national population. Generally, this group is located in the southern area of the country in the mountainous and remote areas where they can hunt animals and look for wild food products. This group consists of many small tribes (up to 36 groups): Aluck, Bid, Cheng, Dakkung, Doy, Kado, Kaseng, Katang, Kato, Khmou, Lawae, Lawain, Lawee, Lawuck, Makong, Nyahern, Oy, Pakoh, Phai, Samed, Phong, Phounoy, Puak, Samtao, Sapuan, Sok, Soo, Suay, Taliang, TaOy, Thin, Tongleuang, Trew, Trui, Yae, and Yru. The Lao Soung group consists of Hmong-Mien peoples of the Austro-Thai language family and all Sino-Tibetan language family peoples. Usually Lao Soung inhabit the tops or upper slopes of the mountains in the north of Laos at an average altitude of 1700 meters. Shifting agriculture is their main source of living.

40. The Lao Soung is comprised of 20 groups: Hayi, Hmong Dam (Black Hmong), Hmong Khao (White Hmong) Hmong Lai (Striped Hmong), Kongsard, Korcheechad, Kormoochee, Kormoutern, Korpana, Korpheh, Korphousang, Korphouyord, Korpoulee, Korsida, Kui, Laentaen, Lahou, Mouser Dam (Black Mouser), Mouser Khao (White Mouser) and Yao.

41. The various ethnic groups have substantially different residential patterns, agricultural practices, forms of village governance, and religious beliefs. Government policy emphasizes the multi-ethnic nature of the nation. NSLCP-RFSP target villages are increasingly coming under pressure from recent land reform programmes aimed at discouraging deforestation and slash-and-burn agriculture, and at developing private ownership of land.

42. The NSLCP-RFSP target group speaks various languages of the Austro-Asiatic family and, enlarge, has not developed a written script. Most of the target villages are located on mountain slopes, but not at the peaks or ridges, however, in recent times, a growing number of villages have been established at lower elevations near rivers or roads. Their villages commonly range between thirty to seventy households, but can include up to 100 households. The main target group in the Programme area consists of ethnically diverse poor rural households of, primarily, Akha, Hmong, Khmu, Lue, Phong, and Phouthai ethnicity, with two primary sub-groups: (i) highly vulnerable food-insecure households (> 4 months' rice deficit p.a.) with limited capacity to enter into the market; and (ii) poor households that are moderately food-secure and have a greater potential to enter into the market. Both categories share a common livelihoods system based on rain-fed cropping, raising livestock, collecting forest products, and wage labour. Many households move between these categories on a regular basis, and many Programme activities will be suitable for both sub-groups. For most of the target population, *swidden* rice cultivation is an important food source. A small field house is almost always built in the fields, and all or part of the family may sleep there for days during the farming season rather than walk back to the village every day. The relatively low yields of upland, *swidden* rice and the labour needed to keep weeds under control is the major constraint to expanding the area farmed. Corn, cassava, wild tubers, livestock and Non-Timber Forest Products (NTFPs) are important components of the diet to supplement a frequently inadequate rice supply. In addition to farming, they engage in hunting and gathering in the forests surrounding the village. Both women and men regularly collect bamboo and rattan sprouts, wild vegetables, mushrooms, tubers, and medicinal plants, the latter marketed by women. Fishing is common for some groups but seldom practiced by others, perhaps as a consequence of living in an upland environment distant from large streams.

43. Most of target groups are patrilineal. Households average between six and seven persons but may be as large as twelve or fourteen persons. Totemic clans provide a basis for social organization and the regulation of marriage. One must marry someone from another clan. In the village, members of the same clan are likely to develop cooperative relationships in farming. Gender role differentiation in both farming and household activities is considerably greater among these groups compared to the Lao. Men are primarily responsible for clearing and burning swidden fields, although women may assist in clearing the smaller brush. Men punch holes for seed and the women follow, dropping and covering the seed with topsoil. Both sexes weed the fields, but the women are primarily responsible for this time-consuming task. Harvest is a joint activity. In the house, women cook, care for children, husk rice, cut firewood, and haul water. Women also gather roots, shoots, and other wild vegetative products. Men weave baskets, repair farm tools, and hunt small game. Men are also more likely than women to manage household finances and engage in trade, typically selling livestock and collected forest products or scrap metal from the war in exchange for rice. Women may sell vegetables, chickens, or occasionally handicrafts locally but do not have the important market role of lowland Lao women. Where villages have access to primary schools, both boys and girls attend for a few years, but girls are much more likely to drop out before boys.

44. Village governance is managed by an elected administrative committee consisting of a Village Head and several other members in charge of economic affairs, self-defence, agriculture, and so on. Village leadership committees are responsible for the strategic decisions that determine the direction that a village will take concerning, *inter alia*, land use allocation at household level, village projects (primary schools, health facilities, drug revolving funds), Village water committees (VWCs) are responsible for maintaining the village water maintenance funds. In reality, the village heads has limited authority and govern through consensus and the use of social pressure to ensure conformity. Each family contributes equal amounts of labour, material, and money to village projects. Once a decision is made to undertake a project, a committee is appointed to manage the details and keep track of the contributions to ensure that everyone does his or her share. Respected elders, including women, form an advisory group that deliberates intra-village disputes. Most of target groups are animists and many villages have a ritual leader. Ancestral spirits are an important aspect of household religious and safety rituals that protect the household and village against harm as long as they are respected and are offered sacrifices. Rituals are also performed at the start of any important undertaking, for example, at the beginning of rice planting or building a house.

45. **Traditional knowledge** refers to the methods and practices developed by a group of people from an advanced understanding of the local environment, which has formed over numerous generations. This knowledge contains several other important characteristics which distinguish it from other types of knowledge. These include originating within the community, maintaining a non-formal means of dissemination, collectively owned, developed over several generations and subject to adaptation, and imbedded in a community's way of life as a means of survival⁴⁸. Ethnic communities, with their strong connections to and a sense of identity entrenched in their surrounding local environment, have long oral histories of how to adapt to local environmental conditions, events and change. That knowledge frequently rests with the women in ethnic communities, who often play a greater role than men in ensuring household food security. Traditional knowledge can complement or add value to scientific climate data to provide culturally and locally appropriate solutions to community-based climate change adaptation. This local knowledge, which is deeply embedded in practice and belief systems, is a crucial resource, not only to assist our understandings of meteorology and climate, but also to map out appropriate and sustainable community-based strategies to adapt to the impacts of climate change.

46. **Rural institutions.** While there are traditional forms of groups for self-help or sharing work, there are very few farmers' organisations providing sustainable services to members, except where they have been created and supported by development projects. Yet there are a few successful

⁴⁸ Practitioners and Policy-makers Exchange on Climate Change Adaptation, in Agriculture. Regional Climate Change Adaptation Knowledge Platform for Asia, 2011

examples across the country of producers' groups that are offering a much more consistent set of services, have developed more elaborate structuring and are bringing significant benefits to their members, such as for example coffee producers' groups in Champasak and in Pakse. The Lao Farmers Network (LFN), established in early 2014 with the support of the Sub-Sector Working Group on Farmers and Agribusiness (SWGAB), has about 2,600 members spread across 16 member organizations covering bamboo, coffee, organic and non-organic vegetables, NTFP, rice, pig, sugar cane and tobacco production. Presently covering 10 provinces, it intends to become a nation-wide organization in the near future. It aims to strengthen group knowledge and raise group productivity and marketing skills and has recently run members training courses sponsored by IFAD and SDC. The LFN does not yet have a sustainable membership fee structure and a number of its member associations are at an embryonic stage of development.

47. District Agriculture and Forestry Offices (DAFOs) are responsible for implementing agriculture policies and strategies and for delivering extension services to farmers. Yet access to such services is limited by: (i) high staff turnover; (ii) limited outreach, particularly to the remote areas, due to scarce financial resources and lack of transport equipment; (iii) a lack of skills to develop participatory approaches, to promote farmers' groups, and to facilitate market access; (iv) limited female staff and limited knowledge on gender equality; and, (v) in the uplands, limited command of ethnic language and culture. Other relevant departments such as District Industry and Commerce Departments (DIC), responsible for promoting market linkages, and District Offices for Natural Resource and Environment (DoNRE) in charge of land management, similarly lack staff and resources and have limited skills to deal with farmers' organisations or to implement participatory approaches. Modern inputs are rarely used because of their cost and of limited access to input dealers. Rather DAFOs are a main source for accessing inputs and, increasingly, private agri-business supplying inputs to smallholders in the context of contract farming. Post-harvest management is minimal. Limited knowledge on quality requirements and product preparation, of adequate storage or processing infrastructure and of appropriate transport affect farmers' capacities to add value to their produce.

48. Most of the banks present in the target regions are supplying financial services to the rural sector, however only Nayoby Bank (NB), a State-owned development bank, has branches in all of the target districts and provides short-term and medium-term loans to farmers and their groups at an interest rate between 5 per cent and 9 per cent. Portfolio growth is restrained by cumbersome procedures that are not well adapted to agricultural activities and are the cause of excessive delays in releasing funds. Due to high interest rates and limited outreach in rural areas, microfinance institutions do not constitute adequate partners for farmers. Furthermore, due to their limited resources, problematic governance and high interest rates, village banks are ill-prepared to finance agricultural activities and rather tend to specialise in emergency and social loans and in the financing of petty trade. The UNCDF Fund for Inclusive Finance (FIF), financed by various donors, aims at improving the environment of microfinance and rural finance in Lao PDR and at strengthening the capacity of financial institutions to supply their clients with adequate products and services meeting beneficiaries' needs and requirements. (see Financial Services below for more detail)

49. Lao PDR has four mass organizations – the Lao Front for National Construction (Lao Front), the Lao Federation of Trades Unions, the Lao Youth Organization, and the Lao Women's Union. Constitutionally mandated to “unite and mobilize all strata of all ethnic groups in order to take part in the tasks of national defense and development”, these mass organizations are found at national, provincial, district and village levels. The Lao Front is specifically responsible for ensuring that the interests of ethnic minority groups are taken into account and upheld.

50. **Policies for rural growth.** The GoL's overall long-term development goal is to graduate from the status of Least Developed Country by 2020. The National Socio-Economic Development Plan (NSED) and the National Growth and Poverty Eradication Strategy (NGPES) are the main policy documents that outline the country's strategy to eradicate poverty. Poverty reduction efforts are focused on the 72 poor districts, which are to benefit from community-driven access-oriented rural development. Key targets for the draft 8th NSED (2016-2020) include: (i) ensuring an annual GDP

growth rate of at least 7.5%; (ii) GNI per capita higher than US\$1,574 by 2018 and at or higher than US\$ 1,810 by 2021; (iii) total poverty reduced to 15% and household poverty rate to less than 7% by 2020; (iv) enhancing international trade and economic cooperation and achieving full international integration; (v) 70% forest cover by 2020; and (vi) livestock production increasing by 6% per annum and fisheries between 8% and 10% per annum, with livestock forming 30% of AGDP by 2020. MAF's Strategy for Agricultural Development (2011-20), which was prepared with IFAD, ADB and other donors' support, aims at ensuring a successful transition from subsistence to sustainable, market-oriented smallholder agriculture. This should be achieved by: (i) transferring modern technologies for increased productivity, high quality production and value-added agri-processing for domestic and export markets; (ii) improving access to inputs and finance; (iii) promoting farmers' organisations and improving their linkages with private sector players; and (iv) value chain development and improved value chain governance so that smallholders and local SMEs can retain a higher share of the value added. Improved food security is a key objective, which is to be achieved through agriculture diversification and improved, climate-resilient agronomic practices. The sustainable management of natural resources is also among priorities. The strategy promotes an area-based development approach, to be grounded on region-specific strategies and integrated packages, in line with local comparative advantages and agri-ecological potential. With regard to land, the current framework focuses on the development of PLUP as the main instrument to secure access to land, in a context of increasing pressure on land due to the development of concessions and leases granted to foreign companies. A new policy and legal framework on land tenure security is currently under preparation.

51. **Socio-economic Development Planning.** The draft 8th National Socio-Economic Development Plan emphasized the importance of people's participation in planning at the grassroots (village and kum ban) level. Prime Minister's Instruction 01/PM of 2000 sets out a framework within which the Province is responsible for strategy, the District for planning and budgeting and the village for implementation. A supporting Recommendation 128/SPD was issued as a first step in reversing the "re-centralization" trend of the 1990s. This policy guidance defined a new planning and budgeting framework, seeking to increase the responsibilities of the provinces, districts and villages. Provinces were to become "Strategic Planning Units", Districts "planning and budgeting units", and villages "implementation units". The intention of this guideline was to devolve planning and budgeting responsibilities to lower levels of public administration.

52. Subsequently, the Law on Local Administration was approved by the National Assembly in October 2003 to give stronger backing to the policy shift towards decentralization. It outlines the basic principles concerning the organization, working methods and functions of the local administration at provincial, city, district, municipal and village level. A significant innovation (relative to Party Resolution no. 21 that was piloted from May 1993 and sanctioned by the Law) is that it allows for the creation of embryonic consultative bodies at Village and District level (regular Village and District "meetings"), as a first step to opening up the local service delivery, planning and public expenditure management process to people other than local officials. Additional legislation includes Recommendation 475/MF, which is almost entirely devoted to allocating revenue collection and expenditure management responsibilities for the provinces, districts and villages.

53. The Ministry of Public Investment plays a lead role in formulating the Socio-Economic Development Plan (SEDP). The formulation process starts with MPI developing the top-end NSEDP, through collection of basic statistics and data from sector offices and departments in districts and provinces that are vertically connected to the sector ministry. The sector ministries and provinces/capital then formulate their own SEDPs in line with the direction indicated in the NSEDP, under the responsibility of ministers and governors. The districts further formulate their own SEDP under guidance of their province/capital. Therefore, it can be said that data collection is conducted bottom-up, while the formulation of development plans is conducted top-down.

54. Horizontal adjustments among provincial/Capital and district-level sector departments/offices are made with the instructions from the Governor. Public investment projects that are needed to achieve the provincial and district level SEDPs are listed, and projects are prioritized within the list.

The Government issues the Prime Minister's Decree and MPI Minister Instructions every year to announce the implementation of the annual NSEDP in the following year. However, since the capital budget ceiling is not determined at the time of SEDP formulation, prioritization is not strictly conducted within the list.

55. Vertical adjustments within the central government organizations are conducted, from the central level to the provincial/Capital and district sub-organizations. The Ministry of Public Works and Transportation (MPWT) establishes a comprehensive strategy of road maintenance that covers roads in each level nationwide. It is realized by collecting updated information from districts and provinces/Capital. At the same time MPI arranges resource information from their own Road Maintenance Fund and ODA. The Ministry of Agriculture and Forestry (MAF) establishes a comprehensive strategy for irrigation, which is distributed to provinces/Capital and districts to implement their respective roles.

56. The provincial/Capital has an important role of adjusting both horizontal and vertical strategies. However, the adjustment is sometimes difficult to realize since the priorities set in horizontal and vertical instructions are different, which affects the priority setting and support to be received during implementation.

57. The **Sam Sang** decree of 2012 supports building capacity at the grassroots to facilitate integrated rural development. The Sam Sang policy is implemented in various areas of administration, with various ministries and committees involved in the implementation. Although provincial offices operate as strategic units and are expected to implement technical tasks and projects (except for national mega-projects), central ministries have responsibility for monitoring ("inspecting") the performance of provincial technical staff in their sectors. In the context of agricultural development, the Ministry of Agriculture and Forestry (MAF) is expected to interpret agricultural and rural development policies into strategies, programs, and projects, and seek development funds, as well as monitor, inspect, and supervise implementation to ensure achievement of policy objectives.

58. Overall, although important progress has been made in piloting participatory planning systems, and in developing standardised procedures under the guidance of the Ministry of Planning and Investment, Instruction 01/PM is only partially implemented. In particular, there is a need for improved clarity regarding the roles of civil servants working at Province and District levels, particularly in the delivery of services. Moreover, though there have been important and iterative moves towards decentralisation, village plans are prioritised at district level, screened at the province and eventually budgets are aligned with strategies developed at the National and Provincial levels, in accordance with the principles of governance of the Lao PDR. Thus, in general the system remains primarily driven from the top-down; with priorities set at lower levels screened, filtered, and eventually funded according to higher level strategies and decisions.

59. **The Governance and Public Administration Reform Programme.** (GPAR) Public administration reform had been a priority activity of the Government of Lao PDR from the early 90's. The focal point for this activity has been the Prime Minister's Office (PMO), and the focal agency has been the Public Administration and Civil Service Authority (PACSA) which has been turned into the Ministry of Home Affairs (MoHA). Given the wide scope of governance reforms, related activities have been taken up in several ministries and offices of the Government, which include the Ministry of Finance and Ministry of Planning & Investment. The longstanding activity of the Government in this area is the Governance and Public Administration Reform Programme (GPAR). The GPAR projects, implemented at central and provincial levels, provided a strong foundation for developing and implementing public administration reform in Lao PDR. At central level, laws and regulations have been developed and improved in a systematic manner. The capacity of the civil service has gradually improved, both in quality and numbers, and the unified civil service management system, established since 1993, has been incrementally implemented and improved across the country. GPAR also supported efforts to experiment further with refining the national framework on the local governance and central-local relationships. This framework has constantly evolved – and continues to do so – in

search of the right harmony between centralized management, de-concentration and decentralization. That balance is important to ensure that local development and local decision-making goes hand in hand with social peace, political stability, economic expansion, solidarity among provinces and a sound macro-economic management.

60. Four phases of GPAR projects have been implemented to date under the leadership of the Prime Minister's Office and PACSA, in addition to selected provincial administrations (notably, Luang Prabang, Saravane, Xieng Khouang, Khammouane and Sekong provinces). The scope of these governance reforms have been outlined in the Strategic Plan on Governance 2006-10 and the Strategic Plan on Governance 2011-15. The strategic plans emphasize the government's commitment to building "an effective, efficient, well-trained, honest and ethical public service that is able to meet the needs of the multi-ethnic Lao people", through four major governance themes: "Public Service Improvement, People's Participation, Rule of Law and Sound Financial Management".

61. The GPAR activities relate primarily to two pillars: Public Service Improvement and People's Participation, and fall into four broad areas:

- (i) Formulation of policy initiatives to strengthen public administration including civil service;
- (ii) Preparation of strategies, methodologies and implementation plans for the above;
- (iii) Training and capacity building to support implementation; and
- (iv) Implementation support, including equipment and infrastructure.

62. The GPAR platform has been able to create a space for innovation and debate, in an area that remains politically sensitive and has been the main driver behind governance reforms in general. Many innovations that have been tested out in the provinces benefited from the political support of PACSA, without which these reforms will have met with far more resistance. The provincial pilots have also significantly strengthened organisational and human capacities at both the provincial and district levels not only through a number of important training initiatives but essentially through a learning-by-doing approach, supported by the introduction of model offices, the introduction of job descriptions in human resource management, the One Door Service Centres and the piloting of the District Development Funds (DDFs). Provincial level experiments in operational financing and information systems have contributed to the effectiveness, transparency and accountability of the public service.

63. **Ministry of Agriculture and Forestry.** The main role of the MAF is to manage the development of agriculture and forestry for food security and for the production of commodities for processing industries, in line with the Strategy for Agriculture Development (2011-2020). It is responsible for providing strategic orientations to the sector, developing the policy, legal and regulatory framework, promoting investment and ensuring overall coordination. Implementation responsibilities are carried out at provincial and district levels, in line with the government's decentralisation policies. Provincial Agriculture and Forestry Offices (PAFOs) are responsible for providing overall guidance and support to DAFOs, disseminating technical information, promoting innovation and organising input delivery. An organogram of the MAF is detailed in Appendix 1, Annex 2.

Financial services in Lao PDR.

64. **Financial Sector Regulation and Policy.** The financial sector in Lao PDR is, in many ways, typical for a country in transition. The financial sector has traditionally been dominated by large, state-owned banks, which, in the past, have not been very dynamic or competitive. The sector has, however, grown rapidly in recent years, with new institutions established, new products and services introduced, and much more competition. The low income base, the small population and the low rural population density, however, limit the number of financial institutions that can sustainably offer formal financial services. This calls for the continued development of the sector, with innovative community-based solutions required, particularly in the more remote rural areas.

65. Practically all financial regulation falls under the central bank, the Bank of Lao (BoL) and is divided between the Banking Supervision Department (BSD) and the Financial Institutions Supervision Department (FISD). FISD is responsible for microfinance institutions (MFIs), Savings and

Credit Unions (SCUs), mobile money, and leasing companies. Apart from its role as overall regulator of the financial sector, the BoL has, specifically been assigned the mandate and responsibility to supervise and promote the microfinance system nationwide. The BoL is also responsible for the regulation of the capital markets, while the regulatory responsibility for insurance falls under the Ministry of Finance (MoF). Importantly, regulatory directives may also be issued by the other arms of the government, such as the Prime Minister's Office.

66. The regulatory environment in Lao PDR is generally considered supportive of financial sector development. There are, however, gaps and inconsistencies, and in some respects the regulatory and policy environment is lagging behind financial sector development and innovation. This is partly because the process of regulatory reform is very slow, and laws and regulations often remain in draft form for long periods. Some regulations, removed from most other countries in the region, such as strict limits for margins between saving and loan interest rates, complicate the expansion of financial institutions towards microfinance-type financial sector operations.

67. The MoF is responsible for general financial sector policy development. As a part of the overall financial sector policy, the rural finance policy is embedded in several separate policy and strategy documents, mainly the National Socio-Economic Development Plan (NSED) and a Prime Minister's Decree containing the "Policy Statement on the Development of a Sustainable Rural and Microfinance Sector" (November 2003). These documents include some conflicting notions which are reflected in practice in the current rural microfinance operations in Lao People's Democratic Republic (Lao PDR). On the one hand, there is the dominant practice of delivering subsidised credit targeted at rural communities for the purposes of stimulating agricultural production and poverty reduction. Delivery mechanisms are the government-owned Nayoby Bank (a social policy bank) and Agricultural Promotion Bank (APB). On the other hand, there are, in the aforementioned Prime Minister's Decree, the principles of developing a sustainable rural and microfinance sector for Lao PDR based on a system of diverse, independent, market oriented and sustainable financial service providers in rural areas, with interest rates determined by the market mechanism and set to cover all costs.

68. In addition to the above partly conflicting policies, the government has clearly indicated its support to the further development of the community-based network of village funds (VFs) in rural areas. The stated objective of this policy is to establish a VF in every village of the country and to develop methods of linking VFs and their networks to other financial institutions, including banks and MFIs. This particular policy and the general objective to develop rural finance towards a more market-oriented and sustainable direction, provide major guidelines for this NSLCP design process.

69. **Financial Institutions and Rural Finance in Lao PDR.** The formal financial sector is still dominated by the state-owned banks, Banque pour le Commerce Extérieur Lao, APB and Lao Development Bank (LDB). In addition, there is one social policy finance institution, Nayoby Bank, which is generally included in the banking sector. The number and importance of private banks is, however, rapidly increasing. At the end of 2014, there were 37 banks, including three state-owned banks, a specialized bank (Nayoby Bank), three joint-venture banks, seven private banks, six subsidiary banks and 17 branches of foreign banks. The market share of state-owned banks has been shrinking as new competitors have entered. This process seems to be continuing. At the same time, the total operational volumes of formal banks have developed very favourably. In 2014, the total deposits in the system went up by 30% and accounted for 49% of GDP. At the same time the credit expansion was 14%, which accounted for 43% of GDP. According to the BoL, the liquidity of the banking system is generally good in Lao PDR, with short-term client deposits forming a core part of this liquidity.

70. With the exception of the APB and Nayoby Bank, the lending for agriculture by commercial banks is limited. In 2014, the share of agricultural loans of the total portfolio was 9.5%, which was almost totally lent to larger agricultural ventures, not to small-scale producers. Most banks clearly lack experience and capacity to venture into rural and agricultural lending. In general, banks in Lao PDR tend to focus on collateral-based lending, and have not developed cash-flow or payroll-based loan products. Some banks have concerns about the effectiveness of legal processes for loan recovery,

even when there is collateral, which adds to perceived risk. Commercial credit provision is also inhibited by restrictions on loan-deposit spreads, which makes it difficult to adequately price for risk. All this reduces the interest of the banks in rural lending, not only for production purposes, but also for companies involved in agri-processing. Most of the loans issued by banks for agriculture are relatively short-term, reflecting partly the short-term nature of the deposit base.

71. At the same time commercial banks play a very important role in the financial market by offering safe savings services to the public. According to the latest Lao PDR FinScope Survey, while only 9% of the adult population borrow from banks, a much higher 26% of adults have a savings account in a bank. Banks also actively offer important money transfer services both internally in Lao PDR and for remittances from outside the country.

72. There are interesting recent developments in the formal banking sector that can be of importance for this design process and for the NSLCP implementation. ACLEDA Bank Lao Ltd has successfully applied the micro-banking model it developed for Cambodia in Lao PDR. It currently has 67,000 depositors with total deposits of USD 88 million and a portfolio of USD 102 million with 34,000 borrowers. It focuses on small trade loans, with some 50% of loans in credits under LAK 20 million. It lends at 11% to 13%, following the BoL interest rate gap of 4%. The bank is profitable and growing quickly. While the agri-loans still represent only 9% of the banking sector portfolio, the example of ACLEDA Bank is likely to encourage other banks to explore similar types of expansion to micro-lending, potentially also in rural areas. As the competition for urban clients gets tougher, the global trend of commercial banks moving into rural and microfinance markets can be foreseen to materialise in Lao PDR. As will be proposed under the planned NSLCP, this process can be accelerated by providing appropriate stimulation for the banks while fully respecting their independence and the rules of the market.

73. State-Owned Agricultural Banks. To support government's agricultural promotion policies, two banks, APB and Nayoby Bank, offer targeted and in most cases subsidised credit to agricultural producers. APB operates countrywide to support various sectors according to the government policies. Despite its name, agricultural production loans tend to represent only a relative small share (in some provincial branches around 20%) of its total investments. It offers funding at 10.8% to 12.8% to individuals and groups and at 14.5% for larger businesses. Group loans are issued up to maximum LAK 10 million per group member. In livestock, individual loans are used mostly for cattle production, while some group lending takes place particularly for pig production. APB also actively collects deposits from its clientele. In the period 2009-2013, APB operated largely as a standard commercial bank, expanding its lending to various sectors outside agriculture. Following large losses particularly from loans to the construction industry, the BoL has ordered APB to focus again solely on agri-investments. Recently, there have been reports of a potential merger of APB to the Lao Development Bank.

74. Nayoby Bank is the government's policy bank and provides subsidised credit targeted to the poorest districts of Lao PDR. The bank does not have a deposit taking licence. Its prime focus is on agricultural production. Both individual and group loans are used and, in group lending, the maximum loan per group member is LAK 30 million. The interest rates are heavily subsidised, from 5% p.a. in short-term lending to 7% p.a. in loans for 5-7 years. The numbers of borrowers per district can be relatively high (for example, in the relatively small Phouk Houn district, there are 2,773 borrowers), and the low interest rates of Nayoby Bank are often referred to as "acceptable rates" by both the agricultural producers and government employees.

75. Both APB and Nayoby Bank are problematic partners for most international donors. Their lending policies largely based on subsidised rates, are difficult to accept by donors who emphasise market-oriented policies and sustainable institutional development. Another major problem is linked to the financial condition of these institutions, on which convincing data is not available. Recently, the German KfW considered APB as a potential borrower for its credit line. To confirm eligibility, a due diligence process was required. For this process, APB was not able to provide its audited accounts for 2014. At that point, with the approval of the BoL, KfW stopped the due diligence process and rejected

APB as a potential partner. These kind of transparency issues, together with the lending policies of these two banks, discourage their inclusion as potential implementation partners of the planned NSLCP.

76. Registered MFIs. The regulations for the registered MFIs in Lao PDR are originally from 2008, partly revised by Decree of the Prime Minister's Office No 460/G of 2012, covering the three types of MFIs that can be registered by the BoL. These include:

- Non-Deposit Taking MFIs (NDTMFIs), which require a minimum registered capital of LAK 200 million;
- Savings and Credit Unions (SCUs), which require a minimum capital of LAK 100 million and can provide savings and credit services only to their members;
- Deposit Taking MFIs (DTMFIs), which can provide savings and credit services to the general public, need to have a minimum registered capital of LAK 3 billion and have to follow strict prudential standards issued by the BoL.

77. The registered microfinance market in Lao PDR is still relatively weakly developed, but clearly growing quickly. The latest comprehensive data on MFIs is from the end of 2013. At that time, there were 11 DTMFIs in Lao PDR, with 78,000 members. Importantly, 95% of the members were from the Central region. The number of NDTMFIs was 24, with 25,000 members. The SCUs totalled 18, with 28,000 members. The total members in all registered MFIs was 132,000. Since then, the numbers have increased in all three categories, with the total number of institutions today exceeding 100.

78. The MFIs in Lao PDR are still largely located in the capital and larger towns. Their operations, especially in the case of the DTMFIs, are predominantly urban or peri-urban. The key clientele consists of salaried persons and traders. At the same time, following global trends, many MFIs are, for developmental reasons and often with donor support, expanding their operations to genuinely rural areas. As many of them have developed appropriate operational systems, but lack lending capital, they are often willing to borrow externally to expand their operations. This opens potential opportunities for the planned NSLCP-RFSP rural finance programme to partner with MFIs, particularly through the services of the proposed refinancing facility.

79. Community-Based Finance: Village Funds. While the banks and MFIs do not effectively reach to the rural areas, informal financial service provision is very important in Lao PDR. The primary informal organisations offering financial services are VFs, also known as village banks. The VFs are community-based operators that accept deposits from their members and issue loans from these funds to their members. The VFs do not employ permanent staff and can function with very low operational costs (see more below). The profits made from the VF operations are divided between members, based on their share of total savings.

80. The VFs are widespread in Lao PDR. At the end of 2014, there were 4,815 village funds in the country with a total membership of 464,000. The average membership per VF was 102. Around 4,100 of the VFs were solely savings-based, while some 700 had received donor or government grants to finance their lending. The total portfolio of the VFs was LAK 627 billion (USD 78.5 million), with around 171,000 borrowers. The total savings were LAK 524 billion (USD 65.5 million), with the average savings per VF at LAK 127 million (USD 160,000).

81. In Lao PDR, Village Funds are the main financial institutions of relevance to the low-income rural households and provide many such households with access to semi-formal savings and credit products. In many respects it can be argued that they have a good cultural and social fit in rural Lao PDR. VFs are relatively easy and low-cost to operate and can offer depositors good returns for their savings. At the same time the majority of the VFs are thought to be relatively badly run and face operational and sustainability problems. Improving the functioning of VFs through capacity building and support services and through clearer supervisory environment will be an important step forward for rural financial service provision and financial inclusion in rural areas. These actions could improve the level of trust and confidence in the VFs, enabling them to play a more effective role in providing financial services to low-income households. This could also lead to the building of linkages between the VFs and other financial institutions such as banks and MFIs, further developing opportunities for

wider financial intermediation. These perspectives and opportunities are behind the key role given to the VF development in the Rural Finance component of the planned NSLCP.

82. **Mobile Money.** While IT-based solutions already play a significant role in the financial sector in many countries in economic transition, in Lao PDR this development is just starting. Mobile money and other digital financial services have the potential to fill some of the gaps in the financial sector and make available a broader range of financial products and services to those who have limited choices at present, whether because of proximity or cost barrier. Mobile money can directly offer a range of payments, remittance and savings services to customers, and can also act as a distribution mechanism for products offered by other service providers such as banks and MFIs. Mobile money also potentially offers low transaction and usage costs even in remote rural areas, as well as convenience through a widely distributed agent-based distribution network.

83. Appropriate mobile money services are likely to be developed jointly by banks and telephone operators in the coming years, without any support from external donors or projects. When available, these services can be very useful for the NSLCP target group and improve access to various types of financial services in the Programme villages.

84. **Donor Support to Rural Finance.** Development partners have been active in promoting access to finance in Lao PDR and financial sector development more generally. The development of Village Funds, in line with government policy, has, to some extent, been donor-led, involving many multilateral and bilateral donors, including IFAD. GIZ, working jointly with the BoL, has recently been particularly active through the Access to Finance for the Poor (AFP) project, which includes institutional development support and the establishment of meso-level network support organisations (NSOs) (see description below). AFP has been supporting financial literacy and consumer protection. Various donors have also supported the development of SCUs and other registered MFIs. The Asian Development Bank (ADB) has particularly supported institutional development in the banking and MFI sectors. KfW has provided a fund to on-lend to micro, small and medium enterprises (MSMEs), while the International Finance Corporation (IFC) has been supporting the development of the national payment system and the credit bureau. Finally, the World Bank has supported the BoL Banking Supervision Department with the development of prudential regulation and performance indicators.

85. As a part of these development actions, attempts have been made to make affordable on-lending capital available to well-functioning financial institutions, to encourage them to on-lend the funds on their own terms to MSMEs and microfinance clients. KfW has established a Lao Access to Finance Fund (LAFF) in the BoL, to channel EUR 3 million of refinancing capital to selected banks and MFIs for MSME lending. The LAFF office is basically a Project Implementation Unit with one staff member. As engaging other banks in the LAFF has been difficult, the whole LAFF capital will be lent to ACLEDA Bank, of which KfW is one of the owners. Similarly, UNCDF has, under the Making Access to Finance More Inclusive for Poor People (MAFIPP) programme, established a relatively small fund from which loans can be extended to mature financial institutions that cannot meet the loan demand due liquidity constraints. Also this fund has issued just one loan for on-lending, to XMI, a non-deposit taking MFI.

86. Experience from other countries has shown that this type of refinancing facilities can work better if they are adequately funded by various donors and established as independent units, staffed with small but professional personnel. In the coming years, as the economy and financial sector in Lao PDR further develops, demand for such a refinancing facility is likely to emerge. The proposed NSLCP will provide an opportunity to pilot such an approach and, if successful, to scale it up to become a nationwide multi-financier refinancing operation.

Rural Finance in NSLCP-RFSP Area

87. **Overall Status of Rural Financial Service Provision.** The NSLCP area covers 12 districts in four provinces in northern Lao PDR. Table 1 shows the number of relevant financial institutions with rural orientation in the Programme districts.

Table 1: Relevant Financial Service Providers in NSLCP Districts

Province	District	Nayoby Bank	APB	LDB	Number of Villages	Number of VFs
Luang Namtha	Sing		x	x	90	51
	Viemg Phou Kha	x	x		47	-
	Na Lea	x	x		71	49
Luang Prabang	Phon Xay	x			62	na
	Vieng Kham	x			69	na
	Phou Khoun	x			41	na
Huaphan	Xieng Khor	x	x		59	9
	Vieng Xay	x	x	x	104	8
	Ed	x	x	x	78	7
Xieng Khouang	Nong Hed	x	x		109	36
	Khoun	x	x	x	69	26
	Pha Xay	x			33	32

Source: Timo H. Hogenhout and Bounhom Phothimat: LDP Credit Assessment, December 2015.

88. Of the state-owned development banks, Nayoby Bank has a branch office in all NSLCP districts except Sing in Luang Namtha province. APB has a branch office in eight of the 12 districts and the LDB in four districts. The available information shows that the numbers of VFs vary significantly from district to district, partly reflecting donor support activities in the area. Concerning the presence of registered non-bank financial institutions in the planned NSLCP area, the above mentioned ADB study (Timo H. Hogenhout and Bounhom Phothimat, 2015) concluded that “there is no or hardly any outreach of NBFIs in the Programme area”.

89. The same study also collected data on the outstanding portfolios for livestock financing in the NSLCP districts by Nayoby Bank, APB and the VFs. The dominant source of credit for livestock purposes was clearly Nayoby Bank, with around LAK 216 billion (USD 27 million) outstanding in the 12 districts. The APB portfolio of livestock loans totalled LAK 14.4 billion (USD 1.8 million). The aggregate village fund portfolio of livestock loans was LAK 560 million (USD 0.7 million), but this did not include figures from Luang Prabang province.

90. Below, more information is provided on the financial arrangements that are operational in the Programme area or which have affected the proposed Rural Financial Services component design, which is presented in the Main Report and Appendix IV. This information covers (i) registered MFIs in the Programme area, (ii) village funds in the Programme area, (iii) operations of NSOs (see description below) and (iv) the assessment of the VLF credit scheme of the now-closed ADB/IFAD-supported livestock project.

91. *Registered MFIs in the Programme Area.* There are no DTMFIs operating in the NSLCP districts. Three registered SCUs have been identified in the 12 Programme districts of which two are mature organizations, operating in Phou Khoun and Pha Xay districts. One is a new SCU, operating in Nalea district and established based on the Khonchan Village Fund, which has over 1,000 members and LAK 4.8 billion (USD 600,000) in savings balance.

92. The design mission visited the SCU in Phou Khoun district in Luang Prabang province. This SCU has a total of 301 members. It operates from a Front Office located in the district administrative unit. The Management Board consists of members in senior positions in the district administration, with the Dep. Governor as the Chairperson. The total savings and shares of the SCU are LAK 139 million (USD 17,250). In addition, it has received a grant for on-lending of LAK 92 million (USD 115,000) from an ADB project. With this support, the total outstanding loans are at

LAK 218 million (USD 27,000). Agricultural loans (max LAK 5 million) (USD 625) are issued at 2% per month, other business loans (max LAK 10 million) (USD 1,250) at 3% per month. The in-time recovery is reported to be 100 per cent. Savings earn an interest rate of 5% p.a., with higher rates paid on fixed deposits. In the view of the SCU staff, the Union has increased access to financial services in the district. As the loan demand exceeds the available funds, it is interested in borrowing external funds, if the interest rate is favourable and leaves an adequate margin for on-lending.

93. Only a couple of NDTMFIs operate in the NSLCP districts. The design missions visited one of them, the Sovykan Phutthang NDTMFI operates in Houaphan province. This is an operation of the provincial Lao Women's Union (LWU). It started its operations in 2009, with a grants from Viet Nam and from an ADB project. It is a credit-only MFI with operations covering three districts. Its portfolio is LAK 1.1 billion (USD 135,000), funded from grants and accumulated profits. The number of borrowers is small, at 133. Loans are for handicraft, agriculture and trading. Salaried borrowers represent around 60% of total borrowers. Most loans are between LAK 10 million and LAK 20 million (USD 1,250 to USD 2,500). Portfolio at Risk (PAR) (30 days) is below 5%. Because of the high interest rate, 4% per month, this small operation is very profitable, with the Operational Self-Sufficiency (OSS) at 150%. As the MFI operates smoothly with trained and salaried staff, the provincial LWU indicated that they will apply for external loans for on-lending immediately when such an option will be available.

94. The Xainiyom NDT-MFI (known as "XMI") is a much larger operation. With its Head Office in Oudomxai, its operations cover three provinces, including a large activity in Luang Namtha province. Its origins are in the village fund schemes of the closed, IFAD-supported Oudomxai Community Initiative Support Programme. Between 2002 and 2009, this Programme established 63 village savings and credit schemes and seven VF Associations at district level. As an exit strategy, a NDTMFI was created in 2009 with government/IFAD support. In 2010-2015, all Board members of the MFI were from VF Associations. In 2015, Government, which owned the original capital, took over the key Board positions and the MFI became in practice a public institution.

95. In the past five years, XMI has grown rapidly. Its Village Association Unit provides technical assistance to its client VFs, against relatively high fees (20% of annual surplus). The growth, however, is almost solely a result of the development of the standard microfinance operation of XMI. From seven service units, XMI today serves around 10,000 rural and urban clients with an outstanding portfolio of LAK 28 billion (USD 3.5 million). PAR (30 days) is a low 1.2% and the OSS a very high 211%. Because of the very fast growth rate of accumulated profits, the Government ownership has declined to 22% of equity. As XMI is now applying for a deposit taking licence, its control is moving fast from the Government and VF Associations to the top persons in its operational management. The management informed the mission that with its current maximum external borrowing limit at around USD 1 million, XMI plans actively to use the services of the proposed Agricultural Refinancing Facility to further expand its rural portfolio and outreach.

96. While the development of registered MFIs is still at a relatively infant stage in the Programme area, the situation can develop significantly during the planned five-year Programme period. This will mean that options for further developing the operations of the currently small MFI sub-sector can emerge, including the widening of their credit outreach with well-planned external capital injections.

97. Village Funds in Programme Area. Table 1 above shows the number of villages in the 12 NSLCP districts and the number of VFs in these districts. This data will be updated before the Final Design mission. The numbers of the VFs vary substantially from district to district. In Luang Namtha province, the recent activities of the GIZ-funded AFP project (see more below) explains the large differences in the VF numbers between the two AFP districts and Vieng Phou Kha district not covered by the AFP. The design missions reviewed the operations of various VFs in the project area. Brief descriptions of two typical VFs are presented below.

98. The Syphon Village Fund in Khoun district was established in 2005. Today, it is a well-functioning fund with 264 members. It has total savings of LAK 665 million (USD 85,000) and an outstanding portfolio of LAK 690 million (USD 89,000). The VF has two loan products. Business loans are issued at 1.5% per month for 6 months. Emergency loans are for three months at 0.5% per

month. Maximum borrowing limit is 500 per cent the member's savings balance. The biggest loan issued so far is LAK 30 million (USD 2,500). The main loan purpose is trade, followed by agriculture. Loan recovery is very good; if borrowers face problems, repayment period can be re-negotiated, and there have never been any loan write-offs. As the VF Management Committee members manage the operation without permanent staff, the operational costs are very small. Of the profit, by the bylaw of the VF, 70% goes back to savers based on average savings balances, 15% is shared by VF Management Committee, 5% by the Advisory Board and the rest is placed in various reserves and funds.

99. The Syphon Village Fund operates in good cooperation with local government offices, but experiences no external interference by the government in its operations. It reports on its operations to the Lao Front for National Construction (LFNC) at the district level. The Management Committee feels that they will benefit from high level capacity building services to take the VF to "the next level". If this training support could be organised, the VF could be interested in borrowing external funds to expand the outreach and impact of their VF.

100. The Thamxai Village Fund in Nong Het district operates largely according to the same principles as the Syphon VF. Established in 2005, it is today a large and well managed community-based financial institution. It has 467 members, of whom 311 are women, including a very competent female chairperson. The membership consists of two main groups: a large section of civil servants, as the village has major army and police presences, and local farmers and traders. The total savings today are high at LAK 5.5 billion (USD 675,000). The interest income in 2015 was LAK 297 million (USD 37,000), of which the operational costs forms just a small fraction. The profits are shared as described for the Syphon VF.

101. In the Thamxai Village Fund, 50% of loans are for trade and 30% for crops and livestock. The biggest loan so far has been LAK 120 million (USD 15,000). The interest rate on all business loans is 12% per annum (p.a). The loan recovery is good, with no write-offs. All loans are assessed carefully, and low-income agri-borrowers always start with small loans for only three months. The potential to expand both membership and portfolio is very real, but the Management Committee progresses carefully. They feel they will benefit from professional guidance and training in microfinance management. If this could be organised in an appropriate manner, they will be very interested in borrowing some LAK 1-2 billion (USD 12,500 to USD25,000) to expand their portfolio and, hopefully, the institutional profits, to be distributed to their savers. As the Chairperson indicated, however, "we will be even more careful when issuing loans from externally borrowed funds, to keep our institutional independence also into the future".

102. These examples of well performing VFs in the planned Programme area show both their importance in the village economies and their development potential when appropriately supported. These issues form one of the pillars when developing the rural finance approach for the planned NSLCP.

103. *Network Support Organisations (NSOs)*. As indicated, the village funds today form the only community-based financial service network of any importance in rural Lao PDR. Their further development and ultimate connection to the more formal financial sector provides a major opportunity to contribute to financial inclusion and rural growth in Lao PDR. GIZ and the BoL have developed a systematic approach to widen and strengthen the VF networks in Lao PDR. This approach is based on the establishment of 2nd tier support organisations called NSOs in the provinces. One of them works in the NSLCP area in Luang Namtha province, covering two Programme districts, Sing and Nalea. A recent ADB-funded study (Timo H. Hogenhout and Bounhom Phothimat, 2015) noted that the VFs in these districts are bigger and stronger than the village funds elsewhere in the Programme area and concluded that "The VFs set up by GIZ in Sing (41) and Nalea (45) function well, are financially and operationally self-sufficient, provide both savings and loans services and have an adequate system of self-regulation and monitoring". For the purposes of this design process, it is useful to briefly describe the approach that GIZ/BoL are using in support of VFs and their networks.

104. To summarise the approach, the GIZ AFP programme sets up and supports VFs (also called Village Banks). VFs that are established are totally savings-based without any initial cash/grant

injection. GIZ only provides basic equipment (safe-box, bookkeeping material) and focusses on technical support. This technical support is provided through GIZ project offices in the provinces that, during the first year, are transformed into NDTMFIs. These MFIs are established at the provincial level (sometimes several in a province) and act as NSOs, (2nd tier). NSOs charge the VFs for their management support services (4% of managed deposits) and provide liquidity management services, taking excess liquidity as deposits and lending the funds on at a margin to VFs that need additional lending capital for their operations. The NSOs have an exemption from the BoL to take deposits from their member VFs. The objective of the NSOs is to become sustainable in around 4-5 years by serving a minimum of 40-50 VFs, and continue on a permanent basis their operations as a management agent and an "apex bank" for their member VFs.

105. The process starts as a GIZ project operation by establishing the VFs in the target villages. These VFs then become the owners of the 2nd tier NSO, owning 90% of the MFI, while the staff can own a maximum of 10% of the NSO shares. The NSO management structure consists of the Annual General Meeting, Board of Directors, the relevant fiscal committees and full-time professional staff to manage the operations with the member/owner VFs. With the increase in its income, the NSOs become increasing less dependent on GIZ support. The figures indicate that of the currently operational seven NSOs, the oldest three have already reached over 100% operational sustainability (at the end of 2015, between 106% and 117%), with the newest ones systematically moving towards full sustainability. At the end of 2015, these seven NSOs supported 446 member/owner VFs, the performance standards of which were clearly above the average in Lao PDR.

106. As indicated, the NSO already take excess deposits from their member VFs and successfully on-lend the funds to other member VFs. As NDTMFIs, they can also borrow externally to a maximum level of 30% of their own outstanding portfolio and use the funds for on-lending to VFs. The mission discussed this limit with the BoL. The BoL indicated that the issue of raising this limit for these apex MFIs (not to all NDTMFIs) could be considered later, because of the special nature of the NSOs as 2nd tier microfinance institutions.

107. The approach based on the village fund concept and the utilisation of NSOs as support institutions offers a very promising and systematic option for increasing financial inclusion, investment and rural growth in a sustainable manner in the NSLCP area and in the future, also on a wider scale in Lao PDR.

108. Northern Region Sustainable Livelihoods through Livestock Development Project (LDP) Village Livelihood Fund (VLF). One rural finance activity, which affects the design of NSLCP, is the VLF of the already closed ADB and IFAD-funded LDP. This problematic, project-managed credit scheme is still operational and holds a substantial amount of funds that can be useful for the reaching of the development targets of the planned NSLCP credit programme.

109. The operations and performance of the VLF have, at various times, been thoroughly assessed by external rural finance experts⁴⁹. From the beginning, the assessments have been very critical about the decision to distribute donor-funded credit through the Programme structures, instead of involving an independent financial institution to implement the scheme. As early as 2011, only two years after the VLF started to operate, an expert report noted that the system is effective in credit disbursements. In total, the VLF disbursed loans to 9,519 households, which exceeded the original LDP target by 59%. At the same time the credit model used was unsustainable and lacked professional management. The report strongly advised that this credit programme be immediately transferred to professional management to avoid the predictable rise in non-performing loans. The same messages were repeated in later reports, including the most recent one from late 2015. Below, only a short summary on the performance record and the problems encountered in the VLF implementation is presented, with emphasis on issues that affect the NSLCP project design.

⁴⁹ The key external assessments include: Hickson and Khanthaphat: "Evaluation Report of Village Livelihood Fund Microfinance Program" (October 2011); Hickson for NIRAS: "NSLCP: Rural Finance Design" (August 2014), and Hogenhout and Phothimat: "LDP Credit Assessment" (December 2015).

110. From the LDP budget, a total of USD 3 million (LAK 24 billion) was set aside for VLF credit (ADB USD 1.8 million, IFAD USD 1 million, beneficiaries USD 0.2 million). The credit was to be issued through Farmer Livestock Groups (FLG) to be established in 300 project villages. The credit was to be managed by project structures, with the main implementation responsibility given to the LWU, particularly its district staff, which were to manage loans to some 6,000 households in a wide implementation area of 18 districts. To achieve this, "70-90 inexperienced, untrained and part-time district LWU staff were contracted to manage the combined tasks of mobilising farmer livestock groups (FLGs), training the FLGs in financial management (organising meetings, keeping records, planning, reporting), setting up revolving funds and training the revolving fund groups in the management of funds, risk assessment, loan assessment, loan administration, account keeping and loan monitoring". These unrealistic assumptions, particularly as very little systematic training for the LWU staff was provided except in MIS, contributed heavily to the problems of the VLF.

111. Using the Project approach in VLF credit delivery, many of the dangers generally linked to this type of operational models materialised. To summarise, the outcomes of the LDP credit component are highly typical for such interventions and similar results have been observed time and time again in many countries, including Lao PDR. While the detailed observations are presented in the documents mentioned in Footnote 36, the key problems with the VLF approach and its consequences include the following:

- due to significant outside pressures, the emphasis was strongly on disbursements. In many cases, people were encouraged by the project/government to enter the groups to get cheap credit;
- business plans were dismissed as a loan application requirement, and loan appraisal was very seldom conducted; loan requests were never refused;
- mass disbursements of loans in festive village ceremonies further undermined the image of the VLF as a serious credit scheme, in which wilful default will be seriously sanctioned;
- loans focused on the long-term loans for procuring cattle (64%), which is difficult to justify as the most appropriate livestock investment in many district;
- too much emphasis has been placed by both the borrowers and the VLF implementers on the low interest rates of the scheme; continued access to rural finance services is a much more important factor in the economic development of rural households than one-off cheap loans;
- systematic follow-up of overdue loans was not applied and, in various districts, defaulting farmers were seldom visited;
- the groups were not voluntary groups suitable for mutual guarantee. Consequently, group guarantee has only in very few cases been successfully used to recover overdue loans;
- the scheme required 20% compulsory savings of the loan amount for each borrower; in reality, this amount was often deducted from the loan at disbursement, which is a practice strongly discouraged in microfinance;
- the attempts by the Project to establish village-based, operational revolving funds failed; the funds are still owned and revolved by the Project;
- districts reports highlight many cases in which the funds released in cash were used for other purposes than intended, often for consumption and house improvements;
- as cattle raising was not seen as a business, large animals were seldom sold to pay back the loans. Even when the sales took place, the loans still remained unpaid as default was not sanctioned;
- as larger repeat loans were not promised after the first loans were fully paid (as MFIs routinely do to encourage timely repayment), the clients lacked motivation to repay;
- despite the use of the MicroBanker system in loan scheme management, the external audit reports on the lack of required checks and balances in the financial management of the scheme; and

- the positive reports on the potential impact of the rapidly disbursed VLF loans on household incomes and asset creation may be exaggerated as, at the village level, it is difficult to track such impacts.

112. From the start-up of the VLF to June 2016, a total of LAK 59.96 billion (USD 7.5 million) was disbursed to smallholders. In January 2016, the disbursements from the revolving fund of the VLF were stopped by a decision by the MAF. In May 2016, disbursements were resumed to selected district with PAR (30 days) below 30%. At the end of June 2016, the VLF had an outstanding balance of LAK 20.66 billion (USD 2.58 million). PAR (30 days) of this portfolio was 48.6%. This represented an improvement from 57.2% six months before, due to active recovery work by specially established task forces. The hard core overdue loans, with PAR (over 180 days), represented 35% of the remaining portfolio.

113. On the positive side, the VLF had at the end of June 2016 LAK 11.97 billion (USD 1.49 million) of cash/near cash on different bank accounts. It also has its staffing basically intact and operational, with the Manager and three full-time staff in the project Regional Office and part time staff from the LWU and DAFOs in the districts. At the same time, it still pays relatively high compensations to the districts in which the scheme is operated. In I-VI 2016, the operational income of the VLF was LAK 823 million (USD 103,000) and the operational costs LAK 1.06 billion (USD 133,000). The result was a total loss of LAK 238 million, or USD 29,750. As the scheme has no other income sources, this operational deficit reduced the capital of the revolving fund, in this way eroding the lending capital of the scheme.

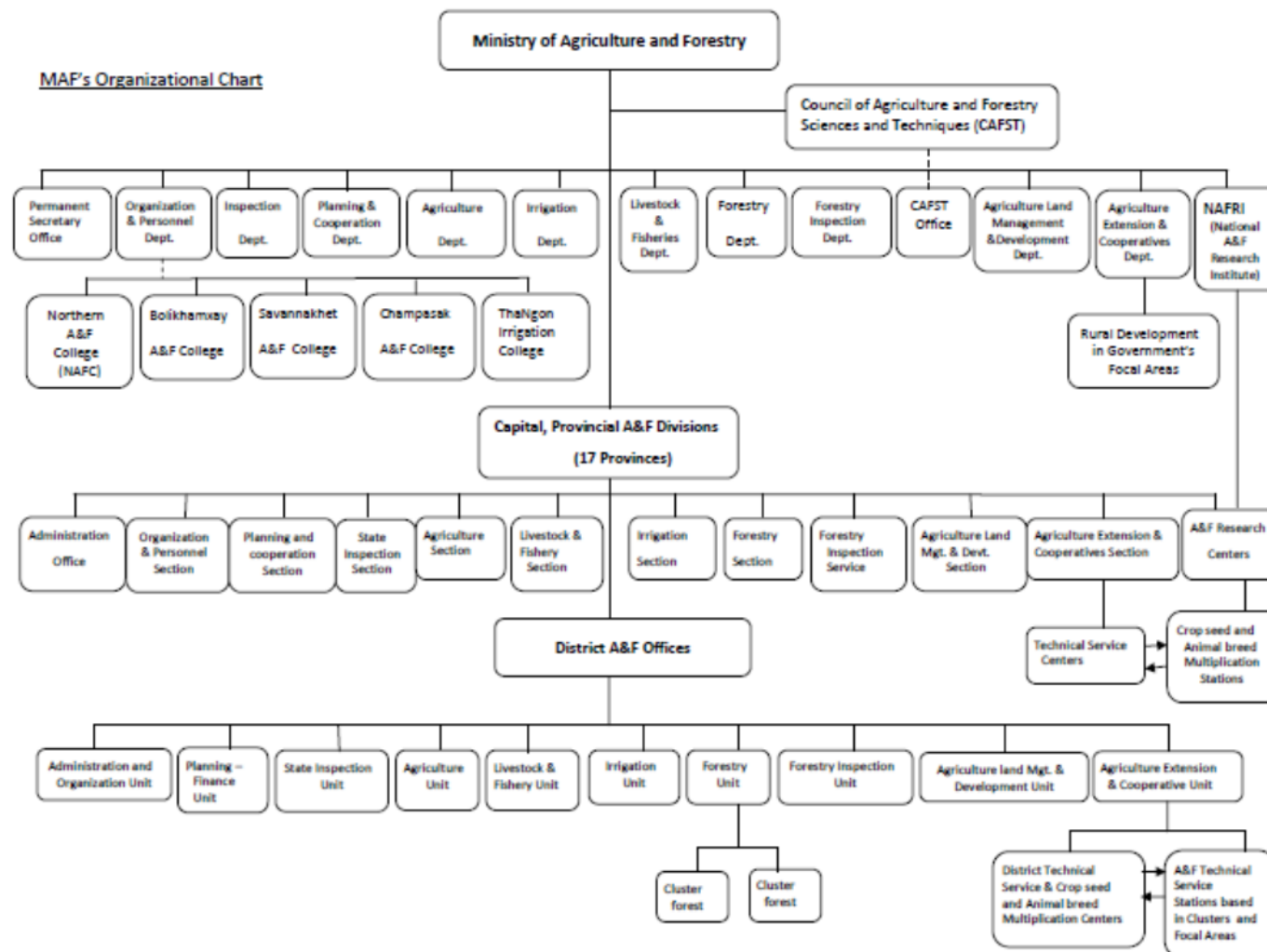
114. For the current design process, the important issue is that there is still a relatively large amount of money in the VLF that can be put to use under the proposed NSLCP. The scheme management continues to implement a collection campaign of the overdue loans. With a successful recovery drive and by using member savings as repayments, it is estimated that around USD 2.5 million of residual VLF/LDP funds could be available for lending under the proposed NSLCP.

115. Concerning the future, in the design mission's view it is unrealistic to assume that a professional MFI could be recruited to take over this subsidised single sub-sector credit scheme. Instead, it is proposed in Appendix IV that a different approach is used, based on a solution that would, with support from external microfinance experts, provide financing during the first project years on more commercial terms for the required NSLCP livestock development investments and then gradually convert the reflows of this credit operation into the operating capital of the proposed Agricultural Refinancing Facility, to be used to support on a sustainable basis the expansion of the investment lending operations of registered banks and MFIs.

Annex 1. Overview of the main Climate Change projects in Lao PDR

1. During the Sixth Seventh National Social and Economic Development Plan (NSED), nearly USD 90 million worth of projects/activities related to water resources, environment, meteorology and hydrology were carried out in the country. Of this, nearly 90 percent related to water resources, and the rest to the environment as a whole. Most projects were supported by the Asian Development Bank (ADB), World Bank and Government of China. Important actors on climate change, food security and agricultural development in Lao PDR include AusAid, EU, World Bank, IFAD, World Wildlife Fund (WWF), Mekong River Commission (MRC), GIZ, International Union for the Conservation of Nature (IUCN), and AFD.
2. Key projects implemented by IFAD in the past include Sustainable Natural Resource Management and Productivity Enhancement Project with ADB, Northern Region Sustainable Livelihoods through Livestock Development Project (NRDLLDP), initiated by ADB (approved in 2006), Rural Livelihoods Improvement Programme (RLIP) in Attapeu and Sayaboury and Oudomxai Community Initiatives Support Project (OCISP) (closed in September 2010). Other ADB supported projects include an initiative to develop community managed irrigation systems (loan 2086), support to manage and mitigate against floods and droughts and a proposed project on GMS-LAO Flood and Drought Risk Management and Mitigation and ADB's ongoing support to the National Climate Change Strategy and the Climate Change Office.
3. UNDP support to climate change action centers on NAPA. It has provided technical assistance on Second National Communication to the UNFCCC, UNDP jointly with UNEP supports the Poverty Environment Initiative (PEI) which aims to build the long term capacity of the government to integrate environmental concerns in national development plans, investment management processes and poverty reduction strategies. FAO will shortly initiate a Global Environment Facility (GEF) project designed to facilitate an enabling institutional and policy framework to mainstream climate change. GEF funds will be used to apply a climate smart land use planning process that identifies integrated land uses that mainstream climate resilience, adaptation to climate change, and improve soil conditions as the foundation of sustainable crop yields. Innovative forest restoration technologies with simple absorbable steps for local communities will be piloted to restore ecosystem services, adaptation and mitigation at the landscape level by developing a Climate Smart Agriculture Action Plan (CSA AP). Degraded agricultural and forest lands will be restored by developing integrated land uses that rely on crop diversification, crop rotation, the use of trees, sustainable use of natural resources, forest restoration, and integrated crop-tree-livestock farming systems.
4. One of the flagship programmes to promote agriculture resilience in Lao PDR is the Northern Uplands Programme which has been supported by the Swiss Agency for Development and Cooperation (SDC) in collaboration with the EU, France (AFD), and Germany (GIZ) since 2009. The overall development objective of the program is to eradicate poverty and achieve sustainable development in the Northern Uplands of Lao PDR. The program seeks to reach this goal through improving livelihoods of the rural poor in the Northern Uplands through sustainable land and natural resource management improved land management, improved local development planned, strengthened monitoring of agriculture services, building farmer market linkages and strengthening overall rural development strategy for the Northern Uplands. Other related project includes WWF and IUCN joint support on climate change impact research, Mekong River Commission's Flood Management and Mitigation programmes and individual projects implemented by the National Agriculture Forestry Research Institute (NAFRI), Conservation Agriculture and Water Management Institute.

Annex 2 Ministry of Agriculture and Forestry Organogram



Appendix 2: Poverty, targeting and gender

POVERTY CONTEXT IN THE TARGET AREA

1. Lao PDR has made significant progress in poverty alleviation over the past two decades with poverty rates declining from 46% in 1992 to 23% in 2015 (UNDP). The country's Human Development Index value for 2014 was 0.575 which put the country in the medium human development category. The HDI puts Laos at 141 out of 188 countries and territories. The intensity of deprivation in Lao PDR, which is the average of deprivation scores experienced by people in multidimensional poverty, was 50.5%. Improved education and health have contributed to increased human development, which grew by an annual average of 1.57% since 1980. These achievements have happened against a challenging background comprising a multi-ethnic population scattered over a vast, often difficult to access terrain, and with a multitude of cultures and languages.

2. Progress has, however, unevenly benefitted the population across the country. Although the country experienced an average economic growth of around 7% in the last two decades, its impact will have been much greater if it was not accompanied by a sharp increase in inequality. The adverse impact of increasing inequality has been much severe on the depth and severity of poverty. Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live. In upland areas, the national poverty rate is as high as 43%, compared with about 28% in the lowlands. The poorest groups in the lowlands are those who have been resettled from mountain regions. In terms of the UNDP multi-dimensional poverty index, 36.8% of the population were multi-dimensionally poor in 2011/12, while an additional 18.5 per cent were near multidimensional poverty⁵⁰.

3. Households living in the uplands are poorer on average than those in the lowlands. In 2007/08, 20% of households in the lowlands were considered poor, whereas 43% of the households living in the uplands were poor. The latter tend to have poorer access to infrastructure, markets, health care and education; and now have relatively limited and poor quality land. Higher elevation villages are also overwhelmingly inhabited by non Lao-Tai ethnic groups, and the linguistic and cultural differences, constrain their ability to use new techniques to develop sustainable livelihoods. Furthermore, the on-going changes in terms of land concessions for plantations, village relocation and the consolidation of smaller hamlets into larger villages have created a number of risks for uplands dwellers, even as they bring with them opportunities for a better life.

4. The Programme targets the northern provinces of Luang Namtha, Luang Prabang, Houaphan and Xieng Khouang. They are strategically located for trade with neighbouring countries that have current unmet demand for livestock produce. The North remains the poorest region. Upland areas and priority districts remain poorer than lowland areas and non-priority districts despite concentration of poverty reduction efforts on these areas. The average provincial poverty rate is estimated to be (in terms of poverty head count): Luang Namtha at 16.1%, Luang Prabang at 25.5%, Houaphan at 39.2% and Xieng Khouang at 31.9% (LEC 5, 2013).

5. The key determinants of poverty in the target provinces are low education, female-headed households lacking male labour, small landholdings, low crop yields, and lack of investment capital. Poorly operating agricultural infrastructure and inadequate markets exacerbate poverty. Low educational attainment, particularly among women, continues to constrain off-farm wage earning and community participation. Female-headed households are the most disadvantaged because of lack of labour, difficulty in productively farming land, and exclusion from decision making. Poor landless and small land-holding households are also disadvantaged.

6. The Programme's target districts include 12 of the 18 districts included in the preceding LDP Programme. The original selection of these districts for the LDP was based on poverty incidence. The NSLCP- RFSP will be primarily implemented in approximately 200 villages in these 12 districts in Houaphan, Luang Namtha, Luang Prabang and Xieng Khouang provinces as detailed in Table 1 below. The ARF will eventually service all districts in the Programme provinces and, if proven sustainable in the context of this Programme, will be expanded post-Programme to provide national coverage.

⁵⁰ UNDP Human Development Index 2014

7. The activities pertaining to transfer of productive livestock technologies will be initially targeted at 300 existing livestock production groups (LPGs), established by the LDP project and that have been assessed to have the most commercial potential. Using a conservative estimate of an average of 18 households per group the total number of households directly involved in commercialization of livestock production activities during the life of the Programme will be 5,400 households. The LPGs will be supported to absorb new member households and transform into smallholder livestock production and marketing groups (SLPMGs). New groups will be formed where there are no existing LPGs. Over time, membership is likely to grow beyond the targets as SLPMGs become successful in marketing of livestock following market demand specifications. In each district a priority animal type, based on production and market potential, has been selected for commercialization. The rationale for selecting particular animal types for commercialization was to focus the NSLCP on a small number of livestock value chains in each province and provide sufficient production quantities for efficient marketing of livestock products. These value chains and geographic areas have been selected in close consultation with the Lao Government.

Table 1. NSLCP Provinces and districts

Houaphan	Luang Namtha	Luang Prabang	Xieng Khouang
<ul style="list-style-type: none"> • Viengxay • Xiengkhor • Aed 	<ul style="list-style-type: none"> • Singh • Viengphoukha • Nalae 	<ul style="list-style-type: none"> • Phoukhuon • Phonexay • Viengkham 	<ul style="list-style-type: none"> • Nonghet • Khoun • Phaxay

Table 2 – Key statistics in Programme districts

Province	District Name	Cluster (Kum ban)	Village	HHs	Population	Female	Male	Ethnic Groups	Poor village
Luang Namtha	Sing	9	90	7268	39,132	18,794	20,338	8	8
	Viengphukha	7	46	4 344	23,819	11,983	11,836	8	15
	Nalae	13	72	4 154	23,883	12,104	11,779	2	37
Total		29	208	15 766	86,834	42,881	43,953		60
Luang Prabang	Phonexay	9	55	4 843	31,252	15,263	15,989	3	30
	Viengkham	10	71	5 707	29,592	14,485	15,107	3	26
	Phoukhoune	7	38	3 863	23,004	11,244	11,760	3	11
Total		26	164	14 413	83,848	40,992	42,856		67
Huaphan	Xiengkhor	7	59	4 668	27,377	13,394	13,983	6	16
	Viengxay	14	104	5 807	33,056	16,006	17,050	5	31
	Aed	11	78	4 645	26,971	13,218	13,753	6	55
Total		32	241	15 120	87,404	42,618	44,786		102
Xieng Khouang	Nonghat	12	106	5 759	37,956	18,555	19,401	4	45
	Khoun	9	77	5 840	34,197	16,573	17,624	4	0
	Paxay	4	32	2 206	12,623	6,236	6,387	4	2
Total		25	215	13 805	84,776	41,364	43,412		47
Total		112	828	59 104	342,862	167,855	175,007		276

Source: data provided by district administrations, February 2015

8. **Ethnic groups.** Ethnic Groups in the Programme provinces consist of three main groups: Lao Tai (Lao Loum), Hmong and Khmou, of which Hmong and Khmou (Lao Sung) are considered as ethnic minority groups in the Programme area. These three groups take account of 71.2% of the total population in the area. The estimated national and ethnic group populations in the four Programme provinces are detailed in Table 3, below.

Table 3: Ethnicities in the Programme Provinces

Provinces	Ethnicities				Population
	Lao Tai	Hmong	Khmou	Other ethnicities	
Luang Namtha	4,007	35,659	7,292	98,352	145,310
Luang Prabang	118,016	190,595	65,335	33,093	407,039
Houaphan	75,012	28,879	68,289	108,758	280,938
Xieng Khoang	102,176	18,502	88,104	20,814	229,596

Source: Census 2005.

Rural livelihoods⁵¹.

9. Despite being a low-income, agriculture-based country with a subsistence orientation, Lao PDR is in the early stages of a major economic transformation whereby rural households have been experiencing rapid change in their farming and livelihood systems. Some households have begun to engage in semi-commercial farming while others have adopted labour-oriented or migration-oriented livelihood strategies. Long-term migration of younger household members to urban areas is starting to play a large role in household livelihood strategies, in some cases to meet the household's consumption requirements; but in many, it is part of a diversified strategy in which rice farming still plays a significant role, though largely for subsistence. Strategies to promote intensive, market-oriented agriculture in the context of an emerging on-farm labour shortage, combined with an increasing flow of remittances from migrant family members, requires careful analysis.

10. In the uplands, poor families practice rain-fed agriculture through shifting cultivation, rear livestock, collect non-timber forest products (NTFPs) and do some traditional handicrafts (textile and basket weaving, blacksmith). Rice is cultivated on hillsides, and over smaller surfaces in paddy fields. It is destined to home consumption, covering 4-9 months of household needs on average⁵². Upland grown maize and cassava are used both as a food crop and as a cash crop, which is dried and sold in small quantities. Livestock rearing (cattle and small animals) is used as a cash buffer in some the villages to complement the family's diet.⁵³ NTFPs include a wide range of products that contribute to the daily diet and are either collected (bamboo shoots, mushroom, medicinal plants, insects), hunted (game and fish), or sometimes cultivated (bong, cardamom, broom grass) for sale. Furthermore, increasingly both men and women are selling their labour, including on distant commercial plantations where they spend several months living in camps. In the lowlands, farmers have a similar diversified range of activities but with a larger access to paddy fields, mostly rain-fed and with low fertility soils, where they cultivate rice (with average 3-6 months' shortage), sugar cane, rubber and vegetables. They have less access to NTFPs as forest resources have been considerably reduced and their livestock are more prone to disease than in the uplands. Coping strategies are mostly based on diversification, and on selling labour. While there is a Nayoby Bank agency in every district capital, poorer families are reluctant to take loans as they fear they will not be able to pay back.

11. In Lao PDR today, shifting cultivation is based largely on the cyclical use of secondary vegetation, however, some encroachment of older forest still occurs in isolated areas. Over the last few decades, shifting cultivation has considerably decreased the forest area to the detriment of timber resources and natural habitats. In areas where shifting cultivation is concentrated, accelerated soil erosion and modifications in the water discharge can constrain water resources for irrigation, hydropower and domestic use.

12. Cash cropping has grown rapidly in areas having improved access to roads, markets and processing facilities, a process accelerated by the already degraded state of the shifting cultivation

⁵¹ This section draws on the following reports: (i) Shifting Cultivation Development in Northern Laos, Peter Kurt Hansen; (ii) Farmer Livelihood Change in the Chinese Border Region of Northern Laos, Satoshi Yokoyama, Professor, Graduate School of Environmental Studies, Nagoya University, Japan; (iii) Livestock development and poverty alleviation: revolution or evolution for upland livelihoods in Lao PDR?; Joanne Millar and Viengxay Photakoun, 2007 (iv) Improving Upland Farming Systems for Poverty Alleviation, Policy Brief #1, Sub-Working Group on Uplands Development; (v) Traditional Ways of Production and Social Capital of Ethnic Groups in the NUDP target area, Mr. Dominik Wellmann; and (vi) Country Technical Note on indigenous People's Issues, Lao PDR, IFAD, 2012.

⁵² From field visits, poverty analysis carried out prior to design mission and interviews with DAFOs.

system, with its associated low yields and high labour requirements. Other catalysts for cash cropping include a “policy push” aimed at reducing poverty and stabilising farming systems and a market “pull” coming from increasing regional demand for agriculture products. Permanent cultivation of cash crops, such as maize, soybean, cotton, and cassava, is increasing due to improved market access and infrastructure, the ongoing economic liberalisation and the increased use of tractor ploughing, and of (insufficiently regulated) herbicides, pesticides and fertilizers. Cash cropping, involving the full or partial replacement of upland rice with cash crops, affords farmers the opportunity of higher incomes and better use of their labour as well as the opportunity for crop diversification and crop rotation. In areas with limited road, capital and market access (including contract farming), however, farmers are often compelled to continue practicing *swidden* agriculture to secure a subsistence existence.

13. Improved animal raising, which is less dependent on road access for effective marketing and carries the advantage of farmers being able to sell animals when cash is needed and/or the price is satisfactory, is another option to *swidden* agriculture. It can also encourage the incorporation of fodder production (particularly leguminous forages) into farming systems with consequent benefits of reduced erosion and improved soil fertility. Livestock production in Laos, however, is prone to disease epidemics and must thus be accompanied by the development of sustainable village-level veterinary services, including effective vaccination. It also carries other risks: without associated fodder production, livestock production in upland areas can lead to farmers burning the grazing areas to encourage grass production with consequent damage to forest regeneration and humus accumulation. Severe over-grazing may also occur close to water sources and villages.

14. Livestock is, increasingly, playing a key role in the lives of poor in Northern Laos. Rapid growth in demand for meat and dairy products in SE Asia presents both opportunities and challenges for livestock development and poverty alleviation. A review of the livestock sector in SE Asia shows increasing demand for live animals and meat in neighbouring Vietnam, Thailand and China. Northern Laos is well positioned to capitalize on the growing SE Asian livestock market. Findings from research in two upland northern provinces demonstrate how the introduction of forages for livestock has revolutionized the lives of some farmers and villages, but concludes that strategies are still needed to engage poorer households. These areas of opportunity will be addressed under NSLCP-RFSP.

15. **Main ethnic people in the targeted Programme districts** include the Lao Tai, Hmong and Khmou people:

- i. *Lao Tai*: The Lao Tai, along with the Lao Loum, started migrating into today's Laos in small groups from about the eighth century, from southern China or northern Vietnam, tending to establish themselves along river valleys, displacing the Lao Theung already present. Another major migration wave occurred in the thirteenth century as the Mongols consolidated their grip in China, and Tai dominance was by then spreading throughout much of the region, despite resistance from still strong Lao Theung groups. Tribal Lao Tai live in the higher valleys and on the middle slopes of the mountains in northern Laos (and in adjacent areas of south-west China, north Thailand and north-west Vietnam). Largely self-sufficient, they cultivate rice on irrigated terraces as well as corn, wheat and beans and also engage in *swidden* agriculture. They are mainly animist and speak a number of interrelated Thai-Kadai languages, which means they can communicate with lowland Lao and Thai peoples. The Lao Thai are a Lao subgroup sometimes included in the Lao Lum group, the main Lao group that makes more than half the population. They are regarded as more tribal than mainstream Lao and have traditionally lived in upland valleys rather than the lowlands, cultivated dry-land mountain rice as well as wetland rice and maintained strong links to their animist origins. Some Lao-Tai minority groups are still semi-nomadic, moving to new areas when their lands are depleted, but others have become sedentary.
- ii. *Hmong*: The Hmong people lived in China for 2000 years before beginning to migrate south in the 1700s and can now be found in China, Viet Nam, Laos and Thailand. Many Hmong people also live in America. The Hmong groups in Laos, from the 18th century to the present day include the Black Hmong (Hmoob Dub), Striped Hmong (Hmoob Txaij), White Hmong (Hmoob Dawb), and Green Mong (Moob Leeg/Moob Ntsuab). The Hmong culture usually consists of a dominant hierarchy within the family. Males hold dominance over females and thus, a father is considered the head in each household. At marriage the bride joins her husband's household. Hmong practice shamanism and ancestor

worship and, like other animists, believe that all things are endowed with spiritual beings and thus should be respected. Hmong society is organized through a number of patrilineal clans with Chinese surnames such as Li, Wang, and Yang and surname exogamy, or out-marriage, is still strictly observed. Traditionally they practice subsistence agriculture, supplemented by hunting and some foraging. Although they have chickens, pigs and cows, the traditional staple of the Hmong consists mostly of vegetable dishes and rice, with animal slaughter largely reserved for religious occasions. In recent times, following the prohibition of *swidden* farming, many have turned to permanent-field cultivation of crops such as corn or the gardening of flowers, fruits, and vegetables, which they sell in lowland markets.

- iii. *Khmu*: The Khmu people, whose population in Laos totals about 500,000, are from the Môn-Khmer ethnic group and are indigenous inhabitants of northern Laos, who, over the last 200 years, have been forced into higher areas by successive Mon and Khmer empires and the later arrival of various Tai peoples. The Khmu form the largest ethnic group, outnumbering even the Lao, in the five Northern provinces of Luang Prabang, Phongsaly, Oudomxay, Bokeo and Luang Namtha. The Khmu are divided into 5 subgroups called "tmow" which are differentiated primarily by location and dialect. The Khmu language belongs to the Austro-Asiatic language family, however, the Khmu also tend to be fluent in the language of the culturally dominant group of their area. They are an agricultural society, although gathering, hunting, trapping and fishing are parts of the Khmu lifestyle. Khmu crops include rice (especially white and black sticky rice), maize, bananas, sugar cane, sesame and a variety of vegetables. They tend to own small, not large livestock. Most of the agricultural work in Khmu villages is done communally, so as to combine the strength and finish the work quickly. Harvesting of wild rice is generally performed by the village women. Khmu elders, including the shaman, the medicine man, the priest (based on family lineage of priesthood), and the village headman (now chosen by the Laotian government) are traditionally the most important people of the village, and are responsible for resolving all village disputes. Animism and beliefs in spirits of the living and dead are the main features of the Khmu religion. According to the animistic practices of the Khmu, reverence is offered to the house spirit *Hroi gang*. Villagers believe that a Khmu house, village, and its surroundings are integrated with the spirits of the land, and so houses and villages are considered holy or ritualized spaces, protected by a totem that safeguards the family.

16. The NSLCP has an Indigenous Peoples Planning Framework (IPPF)/Ethnic Groups Development Framework (EGDF) specifying the requirements that will be followed in relation to screening and assessment of impacts, meaningful consultation, and preparation of Ethnic Groups Development Plan (EGDPs) during Programme implementation⁵⁴.

17. **Remote ethnic women and livelihood practices.** Women do most of the farm work (planting, weeding and harvesting crops), tend small livestock and collect NTFPs (men occasionally hunt wild animals in some villages). Hard work is associated with women's virtue, reinforced by the cultural norms that good women are strong, dutiful and do not complain⁵⁵. In various surveys, over 70% of female farmers' report spending as much as twelve hours per day performing off-farm and household chores like collecting firewood, preparing meals and caring for children. In the dry season when NTFPs are scarce, women walk an average of one extra hour. Based on the findings of the FNML project, remote ethnic women in the uplands and highlands walk on average 3 hours a day, three times a week to forests for foraging, or three to six times a week to farmland/ paddy work, and tending their small fish ponds located near their rice paddy fields. Home gardens are typically tended by females, providing household with an average of five different vegetables,⁵⁶ although in inadequate amounts. The resulting "time poverty" imposed by women's numerous and onerous tasks contributes to women's unequal education opportunities and clearly limits their opportunity to be involved in more rewarding economic activities or to participate in paid, productive employment.

⁵⁴ See NSLCP Indigenous Peoples Planning Framework/Ethnic Groups Development Framework (EGDF) in Project Life file

⁵⁵ Albone S. (June 2011) Gender and Power Analysis for Remote Ethnic Groups, CARE International in Lao PDR Publication

⁵⁶ The range included: pumpkin, cucumber, garlic, chili, salad, beans, eggplants, cassava, onion, sweet potatoes, maize, and other green leafy vegetables.

18. According to a socio economic study conducted at the completion of LDP, it was found that among the Hmong ethnic group, the women had initiated a move away from remote forest areas towards roadside and market areas. The women had explained that although they were aware that livestock diseases are more common along the roadside and near markets, to them it seemed, in view of the division of labour, that ethnic minority women have more reasons to move than men, particularly because the women were fed up with the hard swidden labour. The women preferred a small garden and some paddy land and an easier life. The study also found Khmu women suffering from muscular and nerve pains because of the hard swidden labour. The women are keen not to have this kind of hardship any longer. They are also fed up with walking long distances through difficult and dangerous terrain in the forest with the heavy baskets to reach the market. Hmong and Khmu women are traders and they want good roads for transport to nearby markets.

19. According to official statistics, less than 10% of households are headed by women. But female-headed households are the poorest, most marginalized, and most vulnerable group. Findings from the FNML and SSSJ projects suggest female headed household (FHH) nutrition and incomes levels can be particularly low because they have lower status in the village, tend to be labour and land deficient and have notably less time to be involved in group meetings.

20. **Ethnic women in the public sphere.** Extension services and project-supported meetings are often held in Lao (which ethnic women may not be familiar with) and at times of the day where women are in the fields. In general, women seldom speak in village meetings, in part because voicing opinions may go against the cultural image of a woman (gentle, patient, self-effacing). These gendered values are not seen to be conducive to a leadership role, which requires the leader to inevitably displease someone. In village meetings, some women are sent as deputies when their husbands do not attend and, in this role, are seen as representing the family not just herself. This accounts for the commonly heard sentiment, 'I don't want to make a mistake' which fuels the lack of confidence many women feel. Low education and lack of familiarity with the village level discussions further compounds the inequity experienced by women. Cultural patterns and resultant lack of free time act as additional limits to the quality of women's participation⁵⁷. In spite of these constraints, numerous project-linked experiences reveal the potential for greater involvement of women in development if community facilitators are well versed in participatory and gender-inclusive techniques and able to reach remote villages on a regular basis. There is good evidence of women's interest to be involved in group activity, and coping strategies to address women's group participation include: setting and knowing in advance an agreed "appointment" during the day, agreeing with male household members that farm-work will be temporarily halted in preference for attending farm groups, and greater labour-sharing duties for males.

21. **Ethnic women and resource management.** In many ethnic communities, women are seen as the "purse" keeping the money safe, but not necessarily having decision-making powers over how it is spent. While household consumption decisions are mostly made by the women, men have a greater say in expenditure for livelihood inputs. There is, however, evidence of men listening to the advice of their wives in financial matters, of female farmer role models able to take advantage of farmer to farmer exchanges, and of women who are eager to take up labour saving devices such as the use of biogas, fuel-efficient wood stoves, wheelbarrows, transport to trading environments, use of electricity to mechanize rice husking, etc. Ethnicity appears to play less of a determining factor on equitable gender relations than the proximity of the road and the awareness of the value of joint household labour in production of high value agriculture or NTFP products.

22. **MAF and gender equality:** Very few women occupy senior or technical positions in the MAF or at PAFO and DAFO levels. This perpetuates the mind-set of planning and extension services being oriented only to males. While the National Commission for the Advancement of Women (NCAW) has made some progress with gender equality concepts, practical application of these concepts at community level with farmers and village leaders is limited. There is a lack of system for reporting of collected sex and ethnic disaggregated data in MAF projects.

TARGETING AND GENDER EQUALITY MECHANISMS

Targeting and Gender Equality Strategy⁵⁸

⁵⁷ Comprehensive Food Security & Vulnerability Analysis (CFSVA) World Food Programme, Lao PDR, Oct-Nov 2006

⁵⁸ See also NSLCP Poverty reduction and social strategy note in the Project Life file

23. **Geographic Targeting.** The Programme targets the northern provinces of Luang Namtha, Luang Prabang, Houaphan and Xieng Khouang. They are strategically located for trade with neighbouring countries that have current unmet demand for livestock produce. The North remains the poorest region. Upland areas and priority districts remain poorer than lowland areas and non-priority districts despite concentration of poverty reduction efforts on these areas. The average provincial poverty rate is estimated to be (in terms of poverty head count): Luang Namtha at 16.1%, Luang Prabang at 25.5%, Houaphan at 39.2% and Xieng Khouang at 31.9% (LEC 5, 2013). The region is characterised by poor infrastructure, difficult access to markets and very low agricultural productivity. The need to protect forest areas, as well as the allocation by the state of concessions for plantations, reservoirs and mining, have led to insecurity of land tenure. Associated secondary problems include internal migration and displacement, illegal land use practices with a detrimental impact on the environment, land disputes and low levels of investment in agriculture and forestry.

24. **Target groups.** The Programme's primary target group is rural ethnic women and men livestock producers who are keen to scale up and modernize their livestock husbandry system for commercial production. The secondary beneficiaries of the Programme are ethnic rural women and men in the targeted Programme districts who want to access affordable credit for running rural medium and small enterprises (MSEs).

25. In each district, the Programme will work with existing livestock production groups (LPGs), established by the LDP project. The LPGs will be supported to absorb new member households and transform into smallholder livestock production and marketing groups (SLPMGs). New SLPMGs will be formed where there are no existing LPGs. The Programme aims to work with a total of 300 SLPMGs in the 12 districts, extending the livestock production and marketing support to at least 5,400 households. Over time, membership is likely to grow beyond the targets as SLPMGs become successful in marketing of livestock following market demand specifications. Successful examples will be showcased to scale out market-oriented livestock production to farmers outside the immediate Programme area. Related livestock infrastructure investments will benefit an additional 10,000 households.

26. The Programme beneficiaries will be primarily self-targeted. Villagers will be requested to identify livestock rearing families who are already part of LPGs or who are entrepreneurially inclined and will be interested in joining SLPMGs to access technical assistance and livestock credit. Goods and services provided by the Programme will respond to priorities, financial and labour capacities and livelihood strategies of the targeted livestock producers. The target groups expressed interest and willingness to uptake the activities that are being offered by the Programme as confirmed during field visits. The Programme will develop safeguard mechanisms to avoid elite capture and ensure that benefits are distributed across income quintiles.

27. Although the Programme is located in poor areas, it is anticipated that the first SLPMG members will be from the relatively more entrepreneurial households, including poor entrepreneurial households. The Programme will therefore need to tailor its technical and rural financial service support to ensure inclusion of marginalized and poor villagers in the Programme activities. Furthermore, the LDP demonstrated the important role that women and ethnic groups have in the development of Lao PDR livestock husbandry, and the NSLCP-RFSP will further strengthen these groups through intensive training programmes.

28. It is estimated that the Programme will include a minimum of 200 villages and 20,000 poor smallholder households through access to financial services, livestock production technology and livestock-related infrastructure. An assessment of Programme beneficiaries is detailed in Table 4 below. The post-Programme benefit resulting from the successful establishment of a nationally implemented ARF could be much larger. In Programme Districts, villages and households not directly targeted by the NSLCP-RFSP will benefit indirectly through improved access to credit, together with capacities, methodologies, systems and technologies adopted within their community, kum ban and district.

Table 4. Breakdown of Programme rural financial services beneficiaries by output.

Category	Number	Logframe	Economic analysis
Financial services to group members			
1. SPLMG loans ^{la}	5,400	Output 1 and 3	Quantified
Direct VF loans and ARF leveraged loans			
2. Village fund agricultural loans ^{lb}	4,050	Outputs 4 and 5	Quantified
3. Village fund non-agricultural loans ^{lc}	2,310	Outputs 4 and 5	Unquantified
ARF – Non-NSLCP NSO loans			
4. Agribusiness loans ^{ld}	40	Output 5	Unquantified
5. Other MFI loans for agricultural development ^{le}	1,640	Output 5	Quantified
Key Indicators:			
Total quantified loans (1 + 2 + 5)	11,100		
Total loans at 75% success rate	8,300		
Number of beneficiaries ^{lf}	49,800		

^{la} 300 groups with 18 members per group.

^{lb} Based on 25% of value of the new NSO new savings and NSO leveraged loans (via the ARF). Leveraged amount equivalent to 25% of the combined: pre-programme savings; new VF savings; and, Luang Namtha NSO savings. Returns based on SPLMG livestock models. Loans assumed to be re-circulated every two years.

^{lc} Based on 75% of the value of new NSO's savings.

^{ld} Half of the balance of available funds following NSO leverage loans. Each loan assumed at USD 50,000.

^{le} Half of the balance of available funds following NSO leverage loans. Each loan assumed at LAK 10 million targeted at agriculture and agribusiness. Returns based on SPLMG livestock models.

^{lf} Estimated number of successful loan households x 6 persons per household.

29. **Targeting strategy.** The activities proposed under NSLCP-RFS Programme will provide a range of technical services to livestock farmers directly and to rural households indirectly through the establishment of sustainable model of rural financial services. The target groups for the specific activities and targeting methods have been elaborated in Table 5 below.

Table 5. Target groups for key Programme activities

Outcome/ outputs	Activities	Target Groups	Targeting Methods
Outcome 1: Smallholder livestock producers adopt productive technology			
1.1 Establish smallholder livestock producer and marketing groups	Farmer group formation	5,400 livestock farming HHHs in identified Programme areas	Direct targeting of livestock farmers willing to form a group to access training and inputs in selected Programme villages. The villages were selected on the basis of an analysis by NAFRI to assess commercialization potential of groups.
	Farmer-to-farmer extension	Lead farmers at kum ban level in the Programme areas	Self-targeting. In collaboration with Lao Farmers Network, the Programme will identify lead farmers at kum ban level who will be trained and then linked to SPLMG to mentor livestock production programmes.
1.2 Technology development	Forage production	8,300 SPLMG members and Interested farmers in the Programme areas who are willing to grow forage and forage seed crops	Self-targeting with village level participatory processes. Household forage development is a pre-requisite to receiving a NSLCP-RFSP livestock loan.

Outcome/ outputs	Activities	Target Groups	Targeting Methods
	Animal breeding	SLPMG members interested to become specialised livestock breeders and smallholder farmers using such breeding services	Self-targeting in consultation with SLPMG members. Direct targeting of SLPMG members who have availed of SLPMG co-financed technology transfer.
	Land use planning and allocation	12,000 SLPMG village households benefit from land use planning and titling.	Self-targeting with village level participatory land use planning methods. Enabling measure to implement the new Land Act, which will legalise community land ownership, which is currently registered informally. It is of particular significance to the target group as land users' certificate is closely linked to rural financial services as a form of loan security.
Outcome 2: Rural households access sustainable and scalable rural financial services			
2.1 Financial services to SLPMG members	Credit scheme for viable livestock investments through amortized loans	5,400 SLPMG member households	Direct targeting of 5,400 SLPMG members who have attended technology transfer trainings and have a viable business plan. Household forage development will also be a pre-requisite to receiving a NSLCP-RFSP livestock loan.
2.2 Networked village funds in NSCLP districts	200 new village funds (VFs) established or strengthened in NSLCP-RFSP provinces	It is estimated that about 20,000 households in Programme districts. will directly benefit from this activity.	Self-targeting. The village funds will be accessible to all villagers who are willing to become members through the deposit of savings in their village fund.
	Establishment of Provincial-level Network Support Organizations established to support VFs	Members and management committees of VFs and NSOs	Self-targeting of Programme supported VFs. VFs will own 90% of NSO shares, with the balance held by the NSO staff team.
2.3 National Agriculture Refinancing Facility	Establishment of a facility in BoL to refinance prudentially tested MFIs, VFs, and commercial banks	Approximately 5,700 private farmer households and 40 agri-businesses through the refinancing of lending programmes of VFs, MFIs and commercial banks	Self-targeting of financial institutions and commercial banks requiring refinancing to respond to demand for credit. Enabling measure for improving the incentive structure for private banks and MFIs to provide medium to long-term agricultural credit.

Gender equality

30. NSLCP-RFSP will promote gender equality as well as women's participation in village development planning, SLPMGs, and market linkage programmes, assisting them to gain equal access to agricultural support and investment opportunities. A gender action plan will be developed as per the following outline and will seek to maintain women's access and participation across all components of the Programme, from extension to Programme evaluation and across all thematic areas of Programme activities. A gender aware approach will be a crucial focus of the Programme whereby women's position and roles will be recognized and acknowledged and women's economic empowerment will be realized through the development of pro-poor gendered economic opportunities.

31. The purpose of the gender action plan will be to promote gender equality so that targeted women and men have equitable access to, and control over, resources (e.g., livelihood supports) provided by and benefits (e.g., food security) gained from the Programme. The gender action plan will ensure:

- *Gender equality concepts* are adequately introduced to Programme staff as well as women and men from Programme communities as much as possible during the Programme work.
- *Facilitation of women's/men's equal and meaningful participation* in the Programme activities and their voices heard in decision-making to be ensured by the Programme implementing partners.
- *Gender sensitive language is used in all documents* – resource and information, education, and communication materials, reports, etc.
- *Mechanisms and tools* are in place to ensure equitable access to and control over resources
- *Gender impact assessment* of the Programme are to be conducted along with periodic review and learning of the Programme.
- *Sex disaggregated data* is to be collected, analysed and used for ongoing Programme development and reporting - with both quantitative and qualitative information.
- *Gender sensitive organizational policies, practices and staff recruitment* for all levels (from management positions to field level positions). This includes ensuring that the Programme does not lose female extension workers when the position is upgraded under the Programme.

Gender Action Plan

32. The gender action plan will be integrated into the components as outlined below:

Outcome 1: Smallholder livestock producers adopt productive technologies

Output 1: Smallholder livestock producer and marketing groups

33. The main activities envisaged under this output comprise farmer group formation and farmer-to-farmer extension. There are about 300 former LDP farmer groups in the 12 NSLCP districts, that have shown good progress in moving along the commercialization trajectory. The Programme will build the capacity of these groups to form SLPMGs with a view to progressing them from the basic production improvements achieved during the LDP to being able to: (i) access input supplies and services needed for commercial production; (ii) produce higher quality livestock products that can be sold at provincial markets, and (iii) market as a producer group. Furthermore, the Programme will identify LFs at kum ban level in the Programme area who will be further trained in animal husbandry at district level by DAFO/TSC staff and subsequently linked to interested SLPMGs to mentor their livestock production programmes. The following mechanisms will be adopted by the Programme to ensure the active participation of women:

- (i) gender analysis of the farming systems in the Programme area conducted at the beginning of the Programme. This analysis will feed into the gender action plan to identify further specific activities and safeguards to be adopted to ensure active participation of women;
- (ii) membership to SLPMG is household based and at least 30% of the participants in SLPMG management committees are women;
- (iii) all committee members (women and men) will be trained on group formation and capacity strengthening training in participatory decision-making and facilitation techniques, leadership skills, public speaking, confidence building;
- (iv) 50% of the participants in consultation are women farmers. Where appropriate, organising special sessions for women; including gender audits in annual farmer groups' capacity assessments;
- (v) separate consultations to be held with men and women to identify their concerns, needs and preferences, ensuring women's voice will be taken into consideration and addressed;

- (vi) SLPMGs will set an attendance quorum for every working meeting requiring that at least 50% of meeting attendees be women members;
- (vii) at least 45% women participants at trainings for technology transfer and business planning in mixed gender groups;
- (viii) technical training materials will include training needs and topics highlighted by women and extension training schedules will ensure that location and timing of delivery are convenient for women;
- (ix) household livelihoods planning tools, such as Household Methodologies (HHM) (See Appendix 2, Annex 3) shall be integrated as part of business plan training of SLPMG members. The HHMs, adapted from the Gender Action Learning System, enables family members to work together to improve gender relations and decision-making within the household and achieve more equitable workloads; and
- (x) At least 80% of female-headed HHs in SLMPGs who have received business planning training receive Small Farmer Grants (quota reservation).

Output 2: Technology development

34. The main activities pertained to under this output will support the diversification and expansion of forage and animal genetics in the Programme area. In implementing these activities, the Programme will ensure:

- (i) 50% of the participants, in consultation for trainings with regard to animal breeding and forage production are women;
- (ii) 100% of interested female-headed livestock producing households have access to services provided by DAEC/DAFO;
- (iii) 100% of interested female headed households are involved in land use planning and allocation.

Outcome 2: Rural households access sustainable and scalable rural financial services

Output 3: Financial services to the NSLCP

35. This output envisages the lending of around USD 3.9 million to the 5,400 NSLCP targeted households for the purchase of livestock and inputs. The component will also train staff of the Lao Women's Union (LWU) at the provincial level to efficiently implement the Programme livestock credit scheme. In the provision of financial services, the Programme will ensure:

- (i) all trainings for SLPMG member HHs, for loan and credit management, will have at least 50% women participants;

Output 4: Network village funds in NSLCP districts

36. Under this output, the IFAD Programme will, working in partnership with the BoL and GIZ, support the development of at least 200 village funds with around 20,000 client households and establishing NSOs in 3 Programme provinces with a view to increasing and diversifying farmer access to financial services. NSOs can broker surplus VF savings and both NSOs and VFs can borrow up to 30% of their loan portfolio to further increase the village credit pool. The Programme will ensure that:

- (i) gender balanced staffing of NSOs;
- (ii) at least 30% women representative at NSO-supported VF management committees;
- (iii) proportionate participation of women from village bank management committee for management trainings provided by NSOs;
- (iv) gender-awareness training for all NSO staff and VF management committees.

Output 5: Agriculture Refinancing Facility

37. Under this output, the IFAD Programme will work with the BoL and MAF to establish an ARF that will provide longer-term discounted block loans to approved VFs and MFI and refinance up to 80% of the value of agriculture loans made by prudentially approved commercial banks. The Programme will ensure that:

- (i) gender balanced staffing of ARF staffing;

- (ii) at least 40% of ARF supported VF and MFI lending is to women;
- (iii) gender-awareness training for all participating commercial bank agriculture sector staff teams and MFI and VF management committees.

Programme management and implementation

38. At the Programme management level, a Gender Specialist will be included in the NPMO's technical team based in Luang Prabang. The Gender Specialist will report directly to the NSLCP Project Director and will have the primary responsibility for ensuring the implementation of the Gender Action Plan. The Gender Specialist will also ensure that all terms of reference for service providers include the requirement that the latter set up gender-balanced teams that have prior experience with gender equality and that contract deliverables reflect gender and inclusion targets and indicators. The Programme will also identify gender focal points at the kum ban level who will mentor and monitor village Programme teams with regard to ensuring gender equity.

39. The Gender Specialist at NPMO will also be responsible for spearheading the integration of HHMs in SMLPG activities. There are various tools under HHMs that can be adapted to the context and the Programme's activities. The most conducive tool in the case of SMLPG will be the "household approach". An example of the household approach has been attached as annex 3. The Gender Specialist will be trained first in the implementation of this approach and in turn organize trainings for facilitators/focal points at the kum ban level. The Gender Specialist will work closely with the selected service provider to support the implementation of HHMs within activities of the SMLPG.

40. Apart from the aforementioned specific gender equality actions, the Gender Specialist will also organize for gender awareness training of the entire NPMO, PAFO and DAFO NSLCP coordination units. Gender awareness trainings will be also conducted at village level and amongst all Programme stakeholders at all administrative levels. All M&E data, analysis, and reporting will be disaggregated by gender.

Implementing household methodologies in Programme area

41. HHMs will be an integral tool in the transformation of subsistence livestock farmers to commercial farmers, as this methodology will enable the household's disparate livelihood strategy to be streamlined into one coherent strategy, which will result in shared objectives at household level, business plans, and timeline for achievement of set targets. The implementation of the methodology will enhance the services offered by the NSLCP-RFSP in the following ways:

- *SLPMGs*: ensure that organizational goals are inclusive, address issues of power and gender, and strengthen mechanisms for dialogue;
- *Livestock production*: improve an equitable distribution of workload, tasks and responsibilities;
- *Land*: support sustainable land use and equitable access to land by different household members;
- *Communal land use planning*: improve decision-making on use and management of natural resources at the community and household levels;
- *Value-chain development*: facilitate dialogue and market dynamics for inclusive value-chains;
- *Rural finance*: help household members understand impacts of decision-making on financial well-being of household; facilitate discussions about risk assessment and mitigation.

42. The Gender Specialist at NPCO will spearhead the integration of HHMs in SMLPG activities. There are various tools under HHMs that can be adapted to the context and the Programme's activities. The most conducive tool in the case of SMLPG will be the "household approach". The HHMs shall be integrated as part of business plan training of SMLPG members and introduced as a gender mainstreaming tool to complement technical training and skills development in livestock production and entrepreneurship. A service provider, with specific experience in implementing HHMs, will be contracted by NPCO to streamline implementation of the approach, pilot trainings of the Gender Specialist, kum ban focal points and pilot HHMs in one kum ban per province. A step-by-step implementation guideline will be developed in collaboration with the service provider.

43. The terms of reference of the contracted service provider will include the training of the NPCO Gender Specialist and the PAFO and DAFO gender focal points. The development of an implementation manual specifically adapted to the needs of NSLCP-RFSP. Piloting the HHM in one kum ban per province as a hands-on demonstration of the methodology to the project's gender focal

points. The development of monitoring and reporting methodologies for HHM specific activities. The service provider will be contracted for a period of at least one year to roll out the HHM activities in the four Programme provinces, before the Gender Specialist takes over the coordination of these activities.

44. The underlying modality of implementing this approach at the village would be one-on-one household visits by the programme staff which will be instrumental to develop individual household visions and analysis, preparing action plans, monitoring progress and provide guidance during the implementation. The various steps towards this would also include:

- Awareness creation and initial community organization within the ambit of group strengthening activities of the SLMPGs;
- Identification of opportunities for SLMPGs and individual livestock producing households, including production and marketing opportunities;
- Identification of challenges and risks that might hinder the leveraging of opportunities;
- Identification of the training needs for women and men, and the provision of links to relevant technical, business and management training;
- At the household level, development of visions and action plans for each enterprise and consolidation of these into one comprehensive plan.

45. Main elements of the household approach should include:

- The assigned Programme staff to mentor individual households through regular, consistent and semi-intensive visits;
- All adult household members (husband, wife and older children) participate in setting the household vision and planning how to achieve it together;
- With the guidance of the assigned Programme or NGO staff, the household prepares an individual household action plan. These plans are then broken down into monthly action plans and followed up by a village facilitator at least once every six weeks with each household individually for a defined period of time;
- The household mobilise resources for implementing its plan;
- Progress of the plan and the benefits thereof (i.e. increased skills and knowledge, increased food security and increased incomes) is reviewed together by household members were shared.

Ethnic groups inclusion framework

46. Ethnic people in the targeted Programme districts have familiarity and considerable local knowledge in rearing livestock. Lack of feed for animals, credit to purchase animals for breeding and fattening, knowledge of animal nutrition, disease prevention, livestock management and market access, among other factors, however, pose a risk to livestock commercialization. The Programme will abide by the following safeguards to ensure that the Programme activities are culturally sensitive and do not have any negative impact on livelihoods and practices of the ethnic people:

- (i) as per ADB safeguards guideline, undertake a screening with the objective to (a) determine if the impacts on ethnic groups are significant; (b) identify the level of assessment and institutional resources required to address IP safeguard issues; and (c) determine information and consultation requirements;
- (i) undertake a social impact assessment which will be carried-out by the NPMO, with the data/information used to prepare an ethnic groups development plan. The assessment will include a gender-sensitive assessment of the affected minorities' perceptions about the Programme and its impact on their social, economic, and cultural status;
- (ii) an ethnic groups development plan shall be prepared for each Programme province. The ethnic groups development plans will be prepared by NPMO with support of ADB financed TA, based on the results of screening, social impact assessment and meaningful consultations;

- (iii) meaningful and culturally-sensitive consultation process will be undertaken with all ethnic groups affected by the projects. They will be properly informed and consulted about the Programme, the scope, implementation schedule and activities, as well as expected impacts, both positive and negative, on the community and ethnic groups. Ethnic peoples' aspirations, needs, and preferred options for the projects will be sought and measures to enhance benefits or mitigate negative impacts will be considered and recorded;
- (iv) NSLCP Coordination Offices at the DAFO level will ensure that at least two staff in the unit speak ethnic languages and relevant information and trainings to Programme beneficiaries are delivered in local ethnic languages; and
- (v) all M&E data, analysis, and reporting will be disaggregated by ethnicity.

47. A socio-economic assessment done at the end of LDP revealed a lack of deeper understanding by the provincial staff as to the intricacies of the ethnic categorization. It is therefore recommended that the NPMO, at the beginning of the Programme, clearly defines a list of sub-ethnic groups and guides the provincial and district government in the collection of data disaggregated by ethnicity.

Annex 1. Targeting checklist

Key issue	Design response
1. Does the main target group - those expected to benefit most- correspond to IFAD's target group as defined by the Targeting Policy (poorer households and food insecure)?	The Programme is targeting the poorest and most food insecure provinces of Laos. The average provincial poverty rate is estimated to be (in terms of poverty head count): Luang Namtha at 16.1%, Luang Prabang at 25.5%, Houaphan at 39.2% and Xieng Khouang at 31.9%. Although the Programme is located in poor areas, it is anticipated that the first SLPMG members will be from the relatively more entrepreneurial households.
2. Have target sub-groups been identified and described according to their different socio-economic characteristics, assets and livelihoods - with attention to gender and youth differences? (matrix on target group characteristics completed?)	A baseline study has been undertaken in 48 villages for the first phase of Programme activities. The survey details the different socio-economic characteristics, assets and livelihoods of the Programme villages. The report will be available at final design. This survey will be improved and repeated as Programme implementation progresses.
3. Is evidence provided of interest in and likely uptake of the proposed activities by the identified target sub-groups? What is the evidence? (matrix on analysis of Programme components and activities by principal beneficiary groups completed?)	Yes. There is good evidence available in the completion report of the previous LDP Project about beneficiary's keen interest in uptake of Programme's proposed activities. The mission's meeting with beneficiary communities confirmed the same.
4. Does the design document describe a feasible and operational targeting strategy in line with the Targeting Policy, involving some or all of the following measures and methods:	
4.1 Geographic targeting – based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentrations of poor people	Yes. The Programme is targeting the poorest and most food insecure provinces of Lao PDR.
4.2 Direct targeting - when services or resources are to be channelled to specific individuals or households	Yes. Technology transfer and financial services will be for the first 3 years targeted directly to members of the SMLGPs.
4.3 Self targeting – when goods and services respond to the priority needs, resource endowments and livelihood strategies of target groups	Yes. The Programme beneficiaries will be primarily self-targeted. Villagers will be requested to identify livestock rearing families who are already part of LPGs or will be interested in joining SLPMGs to access technical assistance and credit. Goods and services provided by the Programme will respond to priorities, financial and labour capacities and livelihood strategies of the targeted livestock producers.
4.4 Empowering measures - including information and communication, focused capacity- and confidence-building measures, organisational support, in order to empower and encourage the more active participation and inclusion in planning and decision making of people who traditionally have less voice and power	Yes. Through NSLCP-RFSP activities, all committee members (women and men) of SMLGP will be trained on group formation and capacity strengthening training in participatory decision-making and facilitation techniques, leadership skills, public speaking, confidence building.
4.5 Enabling measures – to strengthen stakeholders' and partners' attitude and commitment to poverty targeting, gender equality and women's empowerment, including policy dialogue, awareness-raising and capacity-building	Yes. Social inclusion and gender awareness training of the entire NPMO, PAFO and DAFO NSLCP coordination units will be undertaken. Gender awareness trainings will be also conducted at village level and amongst all Programme stakeholders at all administrative levels.
4.6 Attention to procedural measures- that could militate against participation by the intended target groups	Yes. Possible procedural constraints for people from minority ethnic groups and women have been analysed and addressed in the design.

Annex 2. Gender checklist

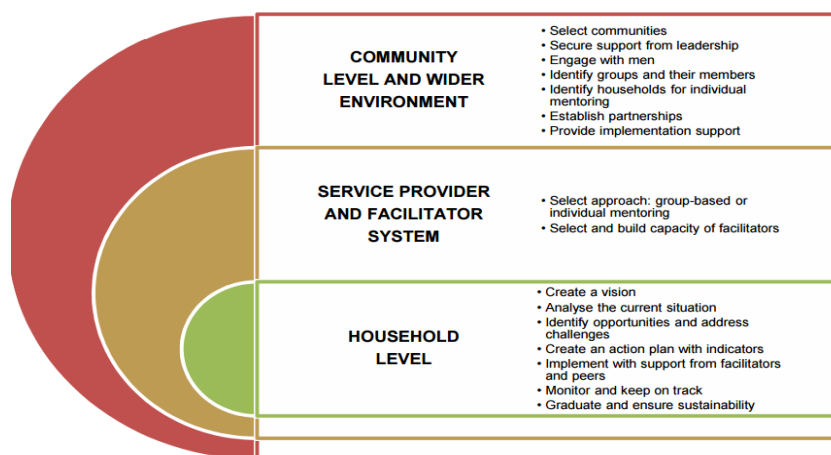
Key Issue	Design Response
1. The Programme design report contains – and Programme implementation is based on - gender-disaggregated poverty data and an analysis of gender differences in the activities or sectors concerned, as well as an analysis of each Programme activity from the gender perspective to address any unintentional barriers to women's participation.	Yes. Gender differences are analysed during poverty analysis and Programme activities are gender-sensitive. NSLCP-RFSP has taken into account women and men's roles, constrains and needs in designing the Programme activities.
2. The Programme design report articulates – or the Programme implements – actions with aim to: <ul style="list-style-type: none"> Expand women's economic empowerment through access to and control over productive and household assets; 	Yes. NSLCP-RFSP activities are designed to expand women's economic empowerment by facilitating women's access to technical training, business development skills and credit. A Gender Action Plan has been developed to ensure women's active participation in all Programme activities.
<ul style="list-style-type: none"> Strengthen women's decision-making role in the household and community, and their representation in membership and leadership of local institutions; 	Yes. NSLCP-RFSP, applying GALs approaches, will build women's capacity to participate in household livelihoods decision making as well as promote trainings specifically addressing need of women to enhance their decision making roles in groups.
<ul style="list-style-type: none"> Achieve a reduced workload and an equitable workload balance between women and men. 	Yes. Rural ethnic women experience extreme "time poverty" and the Programme is highly conscious of the need to reduce women's labour demands. The Programme will facilitate separate consultation with women to ensure the Programme activities do not account for additional workload for women. Trainings and meetings will be organized in locations and timings suitable for women beneficiaries.
3. The Programme design report includes one paragraph in the targeting section that explains what the Programme will deliver from a gender perspective.	Yes. The NSLCP-RFSP Gender Action Plan, essentially guided by IFAD's Gender Equality and Women's Empowerment Policy ⁵⁹ , and the ADB's Gender Action Plan, aims to enhance women's participation and role in agriculture production and marketing by increasing their access to resources and empowering them both technically and entrepreneurially as managers of agriculture and nutrition programmes.
4. The Programme design report describes the key elements for operationalizing the gender strategy, with respect to the relevant Programme components.	Yes, as detailed in the Gender Action Plan.
5. The design document describes - and the Programme implements - operational measures to ensure gender- equitable participation in, and benefit from, Programme activities. These will generally include:	Yes, as detailed in the Gender Action Plan.
5.1 <i>Allocating adequate human and financial resources to implement the gender strategy</i>	Yes.
5.2 <i>Ensuring and supporting women's active participation in Programme-related activities, decision-making bodies and committees, including setting specific targets for participation</i>	Yes.
5.3 <i>Ensuring that project/programme management arrangements (composition of the Programme management unit/programme coordination unit, Programme terms of reference for staff and implementing partners, etc.) reflect attention to gender equality and women's empowerment concerns</i>	Yes.
5.4 <i>Ensuring direct project/programme outreach to women (for example through appropriate numbers and qualification of field staff), especially where women's mobility is limited</i>	Yes.
5.5 <i>Identifying opportunities to support strategic partnerships with government and others development organizations for networking and policy dialogue</i>	Yes. NSLCP will ensure proper and balanced representation of women and men and poor households, including women-headed households in decision-making/influencing bodies at village and kum ban levels.
6. The Programme's logical framework, M&E, MIS and learning systems specify in design – and Programme M&E unit collects, analyses and interprets sex- and age-disaggregated performance and impact data, including specific indicators on gender equality and women's empowerment.	Yes. NSLCP-RFSP will adopt a gender-sensitive M&E system to address gender issues by reporting and analysing sex-disaggregated data throughout the Programme cycle. Where appropriate, the Programme logframe indicators are gender-sensitive and sex-disaggregated.

⁵⁹ http://www.ifad.org/gender/policy/gender_e.pdf

Annex 3: Household Methodologies Approach (HHMs)⁶⁰

1. HHMs build on a growing understanding that, in many parts of the world, households are not cohesive units with shared needs, resources, benefits and goals. Rather, women and men in the same household often pursue separate livelihoods and are responsible for different production and consumption activities. Women usually have fewer productive assets than men and are less able to make independent economic decisions about their enterprises and the use of income they generate. They are usually overburdened with productive work, domestic chores and caring tasks, while men often feel burdened by their responsibility as heads of household. Young adults are also often not effectively integrated into household decision making. These inequalities hinder the general motivation of household members and their ability to make productivity gains and the development of good businesses, which adversely affect their ability to achieve food, nutrition and income security.
2. Many efforts to support women's empowerment focus on strengthening women's economic opportunities and decision-making capacities in groups or organizations. However, the same women often remain disempowered at the household level. They lack a voice in determining household priorities and spending patterns, and in addressing their own health care needs.
3. HHMs shift the chief focus of interventions from an attention on things – assets, infrastructure, value chains – to people: especially on who they want to be and what they want to do. These methodologies work within the “black box” of a household. They enable all household members to identify and overcome obstacles and to make the most of the available opportunities in order to improve their lives. In doing so, HHMs go beyond addressing the symptoms of gender inequality, by tackling the underlying social norms, attitudes, behaviours and systems.
4. As part of the HHM process, household members realize that inequalities in gender roles and relations can be part of the reason they stay poor. Hence, a household's ability to understand the causes of their current situation – and their willingness to act upon the findings – is crucial for unlocking a household's potential.
5. There are several different HHMs, which vary in terms of type, cost and duration of the activities required to support their implementation. The methodologies, however, share similar principles, with a focus on people, empowerment, self-generated solutions and equal opportunities. The most common feature is the involvement of all household members, who – through different strategies and tools – are encouraged to create a household vision, assess their current economic and social situation, participate in joint livelihood planning and share the benefits that arise from working towards common goals. Service providers and facilitators support the implementation of HHM activities, which need to be embedded within an enabling environment at community level (Figure 1).

Figure 1. Key elements of household methodologies



⁶⁰ https://www.ifad.org/topic/household_methodologies/overview/tags/knowledge_notes

Principles of household methodologies

6. The various methodologies share four basic principles:
- **Focus on people.** Household strategies are designed by and for household members who define whom they want to be and what they want to do. They define and implement their own strategies for developing and improving their livelihoods, based on their goals, strengths, opportunities and assets.
 - **Empowerment.** The cornerstone of the HHM empowerment process is strengthening the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. This can be achieved by building on a mutual understanding of different roles and responsibilities.
 - **Self-generated solutions.** Willingness to change is generated by household members themselves (women and men of all ages) by placing them in the driver's seat of the development process. They take responsibility for the changes they want to see and work closely with one another, friends and the community to make them happen.
 - **Equal opportunities.** Women and men, as well as youth, people with disabilities and other vulnerable groups, have an equal voice in setting the household vision and equal access to development opportunities, productive assets, decision-making and benefits. Some HHMs explicitly address gender relations with a "gender justice" lens, making the promotion of gender equality an essential goal of any type of intervention. In others, gender inequalities emerge as a factor limiting the achievement of household goals and the ability of households to better use the productive resources available to them, and participants commit to addressing gender issues as their own choice.

Household methodologies at the household level.

7. All household members (women and men, youth, the elderly and children) should be involved in the HHMs process to ensure that the collective vision reflects their different interests and priorities, and identifies their roles in implementing the action plan.

8. The visioning and planning activities need to be adapted to different household structures (polygamous, single-parent, nuclear family, child-headed) and pay attention to potential sources of conflict and inequalities. The household structure has implications for the ability to develop social and marketing networks, to have access to and control over productive resources – such as land and equipment – and to acquire different types of knowledge. If adults are illiterate, older children may take on the responsibility of keeping records.

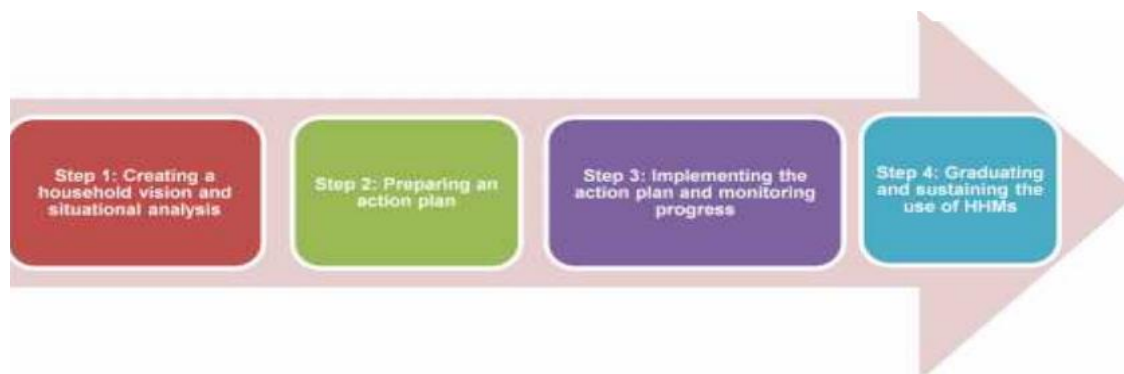
9. The four steps in Figure 2 broadly hold true for the different types of HHMs. Although the sequence may vary, it is helpful to see the vision as the mechanism for providing the inspiration, and the situational analysis as the key to unlocking household potential. The methodology can be adapted based on the needs of a Programme, the household composition and the socio-cultural context.

Household structures

Household structures vary widely. Some follow the nuclear model, with a mother, a father and children, while others are headed by a single adult. Child-headed households are common in some areas, largely as a result of AIDS-related deaths. Polygamy, and the less common polyandry, can result in a number of autonomous or semi-autonomous households.

The extended family, in many contexts, exerts a significant influence over household dynamics, including issues of property inheritance. It can be the source of conflict and of many of the inequalities experienced at the household level.

Figure 2. Steps in the HHM process at the household level



Implementing household methodologies through groups.

10. HHMs may be implemented through a wide variety of groups. The group acts as the entry point for reaching individual households with the visioning and action planning tools. Group members learn the basic skills in visioning and planning and then replicate the process at home, with the support of the group facilitator and peers, if necessary. Peer sharing triggers a multiplier effect among a wider audience and creates a supportive environment for behaviour change.

11. The group-based approach can also be used to develop a group vision and action plan; this can advance the interests of the group as a whole and also help members realize their individual household visions. Embedding HHMs in existing local groups can make the process more sustainable and provides an opportunity to deliver HHMs at scale.

The community and the wider environment.

12. Engagement at the community level is essential to secure the backing of local leadership, to create an environment supportive of positive behaviour change and opportunities for improved livelihoods and to expand learning and enrichment opportunities for all. Development of appropriate national partnerships is also critical.

13. The many roles of the community in supporting HHMs are as follows.

- Supportive environment for change at the household level, specifically:
 - o Behaviour change: being receptive to (and not ridiculing) household members stepping outside traditional gender roles and norms for their benefit (for example, men taking on tasks traditionally performed by women or women having a greater say in the use of household income or assets)
 - o Livelihoods improvement: respecting the economic advancement of households, including asset accumulation, and providing security and protection from theft.
- Source of economic opportunities to fulfil household and group visions: income generation, employment, land and other natural resources, labour, markets, technologies, information.
- Access to complementary services: for example, adult literacy classes, health services.
- Operational: an entry point for identifying groups and households for individual mentoring and for establishing a plan for implementation and rollout of HHMs.
- Forum for sharing knowledge and experiences: to inform the community about the process and the results and to encourage other households to join the HHM process.

Appendix 3: Country performance and lessons learned

1. IFAD has financed or co-financed 12 projects since beginning operations in the Lao PDR in 1980. The recent performance of the country programme compared to the targets included in the COSOP (2011) can be summarised as follows:

2. **SO 1: Community based access to, and management of land and natural resources is improved.** The country programme includes activities to establish and strengthen community institutions and groups for community development, economic development and community-based natural resource management. However, the projects' capacity building efforts to develop the capacity and institutions are still to show better results. For sustainability the projects need to ensure that community institutions are strong enough to continue to operate without continuing intensive support and this is a long-term process.

3. **SO 2: Access to advisory services and inputs for sustainable, adaptive and integrated farming systems is improved.** All projects aim at improving opportunities for agricultural development to enhance incomes and for sustainable natural resource management, using demonstrations and training to promote the use of new technologies and/or new crop, forage and livestock varieties with market potential. There is a need to balance diversification of activities against consolidation and effective and sustainable dissemination of proven activities to ensure quality, manageability and sustainability, in the light of the available capacity. The most successful results come from the projects that have been promoting farmers-to-farmer exchanges.

4. **SO 3: Access to markets for selected produces is improved.** Not all projects are working on market linkages. The most successful projects in terms of Public Private Collaboration development and facilitating access to information to farmers are RLIP and SNRMPEP (the most commendable example is with the Thai company SWIFT for organic vegetables production). The SSSJ programme aims to improve access to markets but has not yet found an effective entry point, while the FNML is at an early stage of market development, which, in the case of FNML, may only be effective in Attapeu province. The role and impact of contract farming and exploration of mechanisms to make its implementation more equitable also needs to be explored under this SO

5. The lessons learnt that are most relevant to the design of the NSLCP-RFSP come from IFAD supported LMD (co-financed), SSSJ and FNML projects, the Poverty Reduction Fund II (PRF II), the recently completed Rural Livelihoods Improvement Programme (RLIP) in Attapeu Province and from other projects working in similar agro-ecological areas (AFD, SNV and Helvetas). AFD is supporting the Northern Uplands Development Project (NUDP) II in 3 northern provinces while SNV and Helvetas have been supporting farmer linkages to markets and public and private advisory services. Lessons can also be derived from the World Bank Upland Food Security Improvement Project and Oxfam and GIZ's interventions on community based natural resource management.

6. Relevant lessons for NSLCP-RFSP design that can be draw from: (i) IFAD supervision reports and other reviews of the aforementioned projects; (ii) the analysis and consultations with stakeholders carried out for the preparation of the current COSOP; and (iii) identified lessons drawn from the implementation of the previous COSOP (2006-2010) are the following:

- IFAD support should focus on agricultural livelihoods and the associated natural resource avoiding dissipation. IFAD should partner with other donors to ensure better activity complementarity;
- Continued and continuous capacity building and knowledge management is crucial for all stakeholders, including technical agencies, extension agents and beneficiary households. Training should be provided in the languages of the target ethnic groups, and use graphical presentations where literacy is low. They should take cultural differences into consideration, and should take place in the villages and not in the district

capital. Training should also be regularly repeated to address relatively high staff turnover in government agencies and knowledge retention at village level;

- While inclusive targeting should be promoted, tailored and specific approaches for each ethnic group and gender, should be followed in order to ensure that a greater proportion of the poorest villagers benefit from NSLCP-RFSP support;
- Grass roots participation in the planning and implementation of activities should be put as a priority and women's and youth's involvement must be ensured. This can best be achieved with the support of experienced, independent facilitation;
- Links must be established to those government and private sector extension services that can support tenure security, agricultural and livestock productivity, and market access;
- There are opportunities to increase the technical quality of infrastructure and strengthen supervision, including resilience and disaster risk aspects;
- Stronger focus should be given to the operation and maintenance of project-financed infrastructure;
- Decentralized community-level decision-making systems should be supported, and more capacity provided and accountability afforded to district and kum ban levels;
- The NSLCP-RFSP takes stock of recent experience of RLIP, SNRMPEP and SSSJ, as well as of other projects and players involved in supporting climate change adaptation in Lao PDR;
- Use participatory action research to establish linkages between the science-based information being generated and decision-making at various levels including community level actions. These projects should also include components for raising community awareness on climate change impacts on food security;
- Building agricultural markets is most likely to succeed with farmers who are effectively organised to produce substantial volumes of a commodity, farm within reasonable proximity to all weather roads and are linked to investors (e.g. contract farming). The equality of those farmer-investor-market linkages can be substantially improved through an improved policy environment.
- Focus the planning/targeting approach on kum bans (as opposed to districts), and seek to reach the poorest, most vulnerable communities and groups within those kum bans;
- Multiple rounds of assistance are necessary at the community level to achieve poverty reduction and market linkage impacts;
- Procurement procedures should be adapted more to community needs and capabilities, including increased use of CFA procurement.
- Community engagement especially in ethnic villages requires additional analysis, resources, and institutional coordination;
- RLIP has been successfully mainstreaming community development into government community and district planning systems, which, although requiring more work to institutionalize the process, should be replicated into new IFAD programmes in Lao PDR;
- Equity aspects should be mainstreamed in project design, with adequate capacity and monitoring mechanisms; and
- Given the limited capacity of project staff, a simple and meaningful M&E system should be put in place including the use of participatory M&E systems
- Stronger synergies should be ensured between IFAD grants (regional and country) and loans (projects).

Lessons learned from LDP implementation as detailed in the ADB LDP Project Completion Report are detailed in Table 1, below, together with the responses adopted by the NSLCP-RFSP design team.

Table 1. Mission responses to LDP Project Completion Report Lessons Learned

<p>LDP Project Completion Report Lessons Learned</p>	<p>Mission Response in NSLCP-PCR design</p>
<p>Several lessons can be drawn from the project experience to improve performance of future ADB-IFAD assistance to the sector:</p>	
<p>(i) The speed with which VLF loans were absorbed shows that there is a strong unmet demand for credit among livestock producers. Access to finance is a constraint to further expansion of livestock production. Increases in loan ceilings and tenure terms are needed to meet the needs of commercial producers. The issue is whether such finance is best provided through commercial channels at market rates or through ad hoc, heavily subsidized arrangements like the VLF.</p>	<ul style="list-style-type: none"> • The NSLCP-PCR will implement a system for sustainable rural financial service delivery through commercial channels at market rates
<p>(ii) While the project design was inclusive of women and ethnic groups (and while it met related targets), the poorest households were harder to reach, despite the attention given to poverty targeting. The poor had less free time to participate in project activities, and were less able to bear the risk of intensified livestock.</p>	<ul style="list-style-type: none"> • The NSLCP is focused on commercial livestock production, which will include both poor and non-poor households. The new project aims to use peer lead farmer-to-farmer extension to better communicate technology transfer in ways that that captures local knowledge which will help reduce risk for poor households. A stronger focus on group liability for livestock loans and the blending of poor and non-poor households in SLPNGs will also reduce risk
<p>(iii) Experience from this project and from other countries at a similar development stage shows that the transition from low-input livestock to commercially oriented production is a lengthy process that is seldom achieved in less than 10 years or by any single project. Sustained donor engagement is important</p>	<ul style="list-style-type: none"> • The mission has recommended the lowering of NSLCP targets concerning commercial livestock development to better match the current reality concerning livestock production and productivity, while developing more sustainable financial and advisory services
<p>(iv) Attitudinal change is a slow process. The limited education of women and their traditional household roles constrained their participation in LPG meetings, which included men and women. These factors also caused women, especially those from ethnic groups, to revert to traditional livestock practices</p>	<ul style="list-style-type: none"> • The project will require a minimum quorum of women members for SLPNG meetings, schedule meetings at times that best fit women's availability and will apply the Household Methodologies approach to empower women and young adults in their households
<p>(v) Language was a barrier to full participation by the relatively isolated ethnic groups, particularly ethnic women. The project's</p>	<ul style="list-style-type: none"> • All training material will be available in local languages and the Project will promote lead farmer-to-farmer extension, particularly using

<p>provision for numeracy and Lao language training was too small to be effective. More effort is needed to conduct training and prepare extension materials in different ethnic languages.</p>	<p>female lead farmers, thereby raising women's participation in extension and delivering messages in local languages.</p>
<p>(vi) Achieving GAP targets relied on suitable training of DAFO and DLWU staff in participatory methods, and clear and realistic targets for women's participation that were easy for project staff to understand and monitor. In contrast, the objectives of the EGDP were less clear, and little specific training was given to project staff, which limited some outputs of the EGDP</p>	<ul style="list-style-type: none"> The NSLCP-RFSP sets minimum levels of women's participation in group activities, enhances women's access to extension messages in their own languages and establishes LWU-owned MFIs that will particularly target female borrowers.
<p>(vii) A highly centralized management structure is unsuited to projects covering dispersed, remote areas because it limits the flexibility to respond to community demands and needs, and it stifles the initiative and ownership of implementing partners like the DAFOs and PAFOs.</p>	<ul style="list-style-type: none"> The Programme promotes decentralised management consistent with GoL's "<i>sam sang</i>" principles. Responsibility is further devolved to farmer's groups (SLPMGs) who will have command of significant Programme resources to meet their specific needs.
<p>(viii) The importance of improved animal health, nutrition, and hygiene has been demonstrated, but is not yet sustainable without further support.</p>	<ul style="list-style-type: none"> Agreed. The Programme will place greater emphasis on improved animal husbandry, particularly animal nutrition, through sustainable forage development and improved multi-purpose water supply to villages.
<p>(ix) The project created a cadre of experienced district extension staff who are now capable and self-confident in participatory approaches to livestock development. These staff members provide an important foundation for future support in the project area.</p>	<ul style="list-style-type: none"> The mission found district extension staff competency to be less than was assessed by the PCR and has proposed: (i) more intensive training of district staff in animal husbandry; and (ii) the development of a LF2F extension system.
<p>(x) Accurately measuring the adoption, outcomes, and sustainability of multiple-input livestock technology is inherently difficult. It will best be approached through a careful survey of small groups of households on a repeat (panel) basis throughout the life of the project and beyond</p>	<ul style="list-style-type: none"> The Programme will apply the updated RIMS methodology to monitor Programme outcomes and impacts and a substantially strengthened M&E system to monitor Programme activities and outputs
<p>(xi) Agricultural projects are inherently complex and require greater flexibility than infrastructure projects. Disbursement is a key indicator of progress of donor financed projects. Pressure to disburse funds early in the life of the project contributed to poor implementation practices.</p>	<ul style="list-style-type: none"> The Programme design takes a phased, sequential approach to the establishment of sustainable and scalable rural financial services, while recognising that the provision of the IFAD loan has been significantly delayed.

<p>(xii) Village selection is critical for success. Resource availability (particularly labor) must be carefully assessed.</p>	<ul style="list-style-type: none"> • Agreed. The mission has reviewed and revised the criteria for village selection and requested the Project Coordinator to rigorously apply those criteria.
<p>(xiii) Working with ethnic groups requires special approaches if the predominant language is not widely understood. It was particularly difficult to interpret the technical language used for production systems improvements.</p>	<ul style="list-style-type: none"> • The Programme design addresses this issue through the strong promotion of LF2F extension, with a particular focus on the identification and training of female lead farmers.
<p>(xiv) Access to finance is likely to constrain further expansion of commercial livestock production. Loan ceilings and tenures will need to increase to meet the needs of commercially oriented production. The financial rates of return to livestock are sufficiently high that more sustainable, higher-interest credit should be readily affordable.</p>	<ul style="list-style-type: none"> • The NSLCP-RFSP will support the development of a commercial rural financial services market, where lending will be carefully assessed for risk and return to investment.
<p>(xv) (iv) A major issue for future projects is whether directed microfinance is best provided through commercial channels at market rates or through ad hoc, heavily subsidized, and unsustainable arrangements like the VLF.</p>	<ul style="list-style-type: none"> • The Programme will develop sustainable and scalable commercial rural financial services.
<p>Key Village Infrastructure Development Fund lessons include the following</p>	
<p>(xvi) The VIDF financed village infrastructure for which there was clear need and demand. However, like other elements of the project, more attention was needed at the design stage to ensure adequate local government capacity for smooth implementation</p>	<ul style="list-style-type: none"> • The Programme will require beneficiary contribution to groups infrastructure development, focus on profitable market of production oriented infrastructure investments and use force account construction wherever possible.
<p>(xvii) For future projects, greater supervision during planning and construction will ensure that the schemes are technically and environmentally sound, and physically sustainable.</p>	<ul style="list-style-type: none"> • The SECAP-RN lays out the environmental requirements SLPMG infrastructure investments for
<p>(xviii) Even with good design and construction, there may be damage and maintenance needs that the communities are incapable of managing on their own. District agency monitoring and support will be warranted to ensure sustained functioning</p>	<ul style="list-style-type: none"> • All Programme investments will be small-scale, include beneficiary contribution, be largely built through force account procurement and, where required, include a community-based operation and maintenance programme.

Appendix 4: Detailed Programme description

1. **Programme Outcomes.** The Programme will have two main outcomes: (i) Smallholder livestock producers adopt productive technology; and (ii) Rural Households access sustainable and scalable rural financial services.

2. **Outcome 1. Smallholder producers adopt productive technology.** This Outcome will include two Outputs: *Output 1 - Smallholder livestock producer and marketing groups; and Output 2 – Technology development.*

Output 1. Smallholder livestock producer and marketing groups. This output involves two activities.

3. Activity 1. Farmer group formation and support. There are about 300 former LDP farmer groups in the 12 NSLCP districts, primarily involving either husband and wife or single female-headed households, that have shown good progress in moving along the commercialization trajectory. The Programme will build the capacity of these groups to form SLPMGs with a view to progressing them from the basic production improvements achieved during the LDP to being able to: (i) access input supplies and services needed for commercial production; (ii) produce higher quality livestock products that can be sold at provincial markets, and (iii) market as a producer group. The Programme district teams and corresponding DAFO/DAEC staff and LFs will work with SLPMG members to build their livestock production and farm financial management capacity with a view to providing participating farmers with appropriate skills to efficiently lift livestock production and profitability. SLPMGs membership will be household based with SLPMGs required to include at least 30% poor households, with women forming at least 30% of the SLPMG management committee. SLPMGs will set an attendance quorum for every working meeting requiring that at least 45% of meeting attendees be women members.

4. SLPMG development is intricately linked to access to livestock credit detailed in Output 3. The Programme will recruit experienced international and national financial services TA to support DAFO/DAEC to build SLPMG solidarity, provide financial literacy/management training, support the LFN in developing F2F services, particularly for female farmers, (see Output 2, Activity 2). The TA will work in Programme districts for a period of three years, coordinating with NAFRI/DAEC/DLF/NAFC to support farmers in simple production planning for profitable investments (business plan templates should be developed and made the basis of the planning curriculum).

5. SLPMGs will be assisted to develop investment plans to support their application for group-secured NSLCP livestock credit (see Output 3). SLPMG members will be trained at Kum Ban level in simple production planning and cost-benefit analysis after which they will be coached intensively to develop their own business plans including (i) a livestock upgrading and management work plan; (ii) cost-benefit analysis; (iii) a financing plan; and (iv) a land and water management plan for the investment referring, where relevant, to the community land use mapping and planning. Production planning support will be rolled out to a minimum of 300 SLPMGs and 5,400 households between 2017-2019.

6. Subsequently, the Programme will support the groups to implement their plans. Technical assistance and financial resources will be made available to support the farm investments of those SLPMGs, or agricultural cooperatives or rural agricultural business households that successfully complete their investment plans. This will be through the NSLCP livestock credit and also through a specific Small Farmer Grants programme (financed by the ADB part of the NSLCP with total fund of USD 2.8 million under title SLPMG Productive Equipment and Materials). Small Farmer Grants for community livestock production, value addition and marketing related investments in infrastructure, equipment and services will be made available to SLPMGs on competitive and cost-sharing basis within the following conditions:

- maximum total investment amount USD 10,000 for SLPMGs and farmer cooperatives and USD 2,000 for business households;
- implementation period of 9-18 months depending on technical requirements and work plan;

- the beneficiaries are required to contribute at least 20% of the investment costs, which may be contributed in kind;
- grants will only be awarded against a work plan and budget developed by the SLPMG / cooperative / business household. The plan must demonstrate the financial and technical viability and sustainability of the investment;
- members of SLPMGs applying for a grant needs to have a forage area planted and livestock accommodation constructed based on an approved design, appropriate for the proposed type and volume of livestock production.

7. Priority investments will consist of appropriate and affordable technologies and facilities that will improve the quality and market accessibility and acceptability of livestock and livestock products, and that are easily replicable by other households/communities in the locality. Acceptable budgetary items to be covered by the grant financing fall within the following categories: (i) non-consumable materials such as equipment and machinery to establish SLPMG technology improvement; (ii) community-based infrastructure; and (iii) training and services from local providers such as LFs for agricultural technical training, marketing support, and business and investment planning support. Category (iii) can be up to 30% of the grant value.

8. As result of any investment, farmer income levels in the short- to medium-term need to increase significantly. Investments could include, *inter alia*:

- maize processing and hay baling or ensiling equipment to produce animal feed for 10-15 members of a SLPMG;
- fencing of household and SLPMG forage areas;
- water distribution systems at SLPMG and individual household levels;
- animal holding pen for veterinary treatment at farmer group/village level;

9. Farmer Grants will **not** cover any expenditure made prior to the date of signature of the grant agreement. Grants will also **not** consider grant support to any applications where the:

- proposed sub-project does not fall within the approved and announced priorities;
- proposed sub-project completion date is not within the maximum time frame;
- value of the grant requested is higher than the amount mentioned in the public announcement, unless the additional cost is covered by the beneficiary contribution;
- beneficiary contribution is below the requirement as per public announcement;
- application does not follow the other rules announced in the announcement;
- applicant has failed to follow terms of agreement of any previous IFAD project or other public institutions grant supported project with the consequence of grant cancellation.

10. Applicants will be supported by the local DAFO/DAEC staff in preparing applications for grants. The Application will be required to provide details as follows:

- title of the grant investment project and name of the producer group or household;
- applicant contact details;
- proposed duration of sub-project;
- proposed total cost, grant amount and beneficiary contribution;
- brief technical description of proposed investment;
- input and output market description;
- work plan including timeline;
- budget and procurement table.

11. Applications from SLPMGs will need to be accompanied by a signed Group Agreement, between all members of the group certifying that: (i) they work together and have decided to implement this sub-project;

(ii) they agree to contribute in-kind as per the sub-project proposal; (iii) they agree to apply for the grant; and (iv) they have nominated/selected the responsible person for the Application and for the overall management of the sub-project.

12. The DAFOs will receive the proposals and immediately upon receiving an application, DAFO will acknowledge the submission and assign a registration number to the proposal that will be used throughout the life of the grant proposal. NSLCP provincial staff will collect the proposals at the DAFOs the day after the submission deadline.

13. The NSLCP PAFO staff at province level will carry out a rapid screening of proposals for eligibility and compliance against documentation, financial, and technical submission guidelines. The screening process should **reject** proposals for the following reasons:

- Applicants do not meet the eligibility criteria as stated in the call for Applications;
- the proposed duration of the sub-project is longer than stated in call for Applications;
- the total grant request and beneficiary contribution are not within the minimum and maximum limits allowed;
- the requested documentary evidence is not provided;
- the proposal is not within the specified Project area and priorities;
- the requested budget items are different from the stated objective;
- the Application is not complete;

14. If the proposal meets all the criteria, the NPMO will allocate financing to the PAFO for the implementation of the Farmer Grant Scheme. The NPMO will guide and supervise the provinces and districts in grant implementation. The DAFOs will be in charge of local level coordination of the scheme, including: (i) disseminating information about the Small Farmer Grant opportunity including rules, results and implementation guidelines; (ii) supporting the candidates in their preparation of Grant Proposals including development of production and business plans that incorporate a land and water management plan for the investment, referring, where available, to the community land use mapping and planning (see Output 2, Activity 4 below); (iii) guiding SLPMGs in the implementation of their investments; and (iv) in collaboration with the LFN, recommending suitable service providers to further support the farmer groups, cooperatives and business households.

15. Based on the outline presented above, a detailed manual will be prepared by the Programme to guide the planning, implementation and assessment of the Small Farmer Grant programme.

16. *Activity 2: Lead Farmer-to-farmer (LF2F) knowledge transfer.* Working with the DAFO, LFN and SLPMGs, the Programme will identify LFs, particularly female LFs, at kum ban level in the Programme area who will be further trained in animal husbandry at district level by DAFO/DAEC staff and subsequently linked to interested groups of SLPMGs to mentor their livestock production programmes. LFs will be employed directly by SLPMGs using Programme grant funding for livestock services (see Output 1, Activity 1). Where appropriate, the Programme, using LFs, will establish Farmer Field Schools (FFS) to support learning and technology transfer on key livestock technologies and tools including farming as a business, group dynamics and management, animal husbandry and health management, animal breeding and nutrition, forage production, climate change adaptation, PLUP, etc.

17. Farmer field schools, based on the principle of people-centred learning, can be effective in ethnic communities as they educate by enabling farmers to observe, analyse and try out new ideas on their own fields in their own language and empower farmers with knowledge and skills to make them experts in their own context. Farmer field schools: (i) provide platforms where farmer groupings and extension and research workers jointly test and adapt options within the specific local conditions; (ii) facilitate farming communities to learn new ways to solve problems and adapt to change; (iii) sharpen the ability of farmers to make critical and informed decisions that strengthen their coping mechanisms; (iv) help farmers learn how best to organize themselves and their communities; and (v) enable farmers' livelihoods to become more resilient and less vulnerable to disasters, including CC. Key elements of the FFS approach will include: (i) learning by

doing; (ii) the field as the main learning ground; (iii) farmer prioritization and farmer-led study; (iv) competence and discovery-based learning; (v) facilitation and mentoring, not teaching; and, (vi) an agro-ecosystem approach. Where appropriate, the Programme will assist groups of SLPNGs to establish Farmer Field Schools (FFS) to support DAEC/DAFO/TSC-led learning and technology transfer on key agriculture technologies and tools including farming as a business, group dynamics and management, food safety and product certification, animal health management, sustainable forest resource management, farmer seed banks, forage production, climate change adaptation, PLUP, etc. The Programme will focus on a farmer-led approach, which is most likely to lead to sustainability and scalability. LFs will be trained in group and farm management and in the relevant technologies. Experienced local NGOs could also be used for technology transfer, together with farmer-to-farmer and enterprise-to-farmer extension, which is expected to be an important learning mechanism within and between farmer groups/associations. The Programme could partner with the forthcoming GAFSP-funded SSFSNP FFS initiatives where they overlap provincially.

Output 2. Technology development.

18. The NAFRI NSLCP Core Team, together with the DAEC and NSLCP Core Team will support the diversification and expansion of forage and animal genetics in the Programme area. This output will have four activities.

19. *Activity 1: Livestock Market Studies.* The Programme will conduct two livestock market studies including an initial evaluation of livestock marketing within the Programme provinces and, before Programme mid-term review, an analysis of the national livestock market, including potential for value chain development and livestock and livestock product export. The initial provincial livestock market analysis will be used to support the updating of livestock production and market policy and strategies in Programme provinces. In particular, it will focus on provincial policies, legislation and fees concerning livestock movement (internal, cross-provincial and export) and market sales. The study will also examine the application of meat inspection at provincial level and sanitary and animal welfare conditions in relation to livestock slaughter. The second nationally-focused study, the specification of which will be developed during Programme implementation, will most likely be done in collaboration with other livestock investments in Lao PDR, notably the New Zealand Assistance Programme (NZAP) supported Lao PDR Beef Industry and Veterinary Training Project.

20. *Activity 2: Forage production.* Livestock nutrition in the Programme area is constrained by the generally low protein content of livestock diets. Many farming systems in the area, furthermore, mine soil nutrients, and cropped areas are prone to severe soil erosion. Forage inclusion in farming systems, particularly leguminous forages, is possibly the most cost effective approach to address animal nutrition shortfalls and reduce negative soil impacts. To ensure quick impact and longer term sustainability, forage programmes require an ample seed supply. Many upland farmers do not yet understand the need for improved animal nutrition and are disinclined to grow forage, or, where they do, focus on grass forages. The Programme could alter this behaviour by first focusing on developing selected forages, particularly leguminous forages, as a profitable seed/vegetative transplant crop, with the forage based feed as a by-product. If the forage seed/vegetative transplant crop is grown close to the home, farmers quickly appreciate the labour reduction in forage based cut and carry feeding and its value as a forage is enhanced. Using an approach of Programme procurement of forage seed/vegetative transplanting material at competitive prices (but well below seed import cost) and free distribution of small quantities of seed/vegetative planting material to interested farmers, the Programme could quickly establish a demand for low labour input forage technologies that integrate into local farming systems, providing benefits in terms of animal nutrition, improved soil fertility and stability and reduced labour demand.

21. In association with the GAFSP-financed SSFSNP, short-term international forage specialists will conduct an initial assessment of forage production opportunities in the Programme districts, order initial seed requirements, and provide technical awareness training for DAEC and DAFO staff including a domestic study tour (see Appendix 4, Annex 2 for ToRs). The International Centre for Tropical Agriculture representation in Laos PDR could be interested in partnering such a programme, supported by the DAEC.

22. A forage initiatives approach is proposed that will be appropriate to smallholders regardless of holding size. On-farm strategies will require no financial inputs⁶¹, and could be gradually expanded with family labour. The fodder development approach will be based on the perceived needs for such interventions amongst stakeholders, and the experiences of successful programs with smallholders' systems, and broad-scale pasture improvement in similar environments elsewhere. It will support a quick shift towards more sustainable and economically viable livestock enterprises, and could assist in developing mechanisms to reduce pressures on fragile grazing areas. It will not be practical to pre-test forage technical options within a conventional research mechanism. The programme will, instead, be based on farmer-led and managed development. This approach has proved to be highly effective in many similar development environments, with rapid gains achieved in many countries including Nepal, India, Thailand, and Ethiopia. The approach will encompass:

- *Quick start-up*, involving a wide range of sites and a large number of communities/ individual farmers from the outset. This will rapidly define appropriate genetic material and development interventions. (The environmental diversity demands such an approach; extrapolating from a small number of sites is fraught with extreme risk). Participation of numbers of diverse farmers has been highly effective elsewhere.
- *Use of a wide array of genetic material* for each strategy or agro-ecological situation. This will improve the prospects of identifying the most suitable material for a particular site, reduces the risk of failure, and spread the seasonal production. The programme will not be dependent on pre-screening of genetic material on existing research sites. Including a broader array of species does not necessarily complicate the delivery process at field level, because simple mixtures will be used. There will be considerable flexibility in terms of species mixtures, with composition varying according to availability and price of various component species.
- *Monitoring*. Farmers and field staff will be at the cutting edge of fodder development, and will be actively involved in continuous monitoring of performance of species and strategies (using simple rapid ranking approaches).
- *Free distribution* of planting material, in small start-up kits.
- *Supporting extension materials*, including very simple plasticized hand-arounds for farmers, and basic fact sheets for field staff.
- *Use of media*. The role of mass media in the promotion of appropriate initiatives will be assessed. This will be done after suitable benefits had been determined from case studies, and only after there is a well-established capacity for supply of planting material.
- *Land tenure / land use* have been raised as constraints on forage development, but, while land tenure issues will be addressed by the Programme, they in fact do not present difficulties for forage development.
- *Grazing land improvement* through low-cost oversowing of well adapted legumes has not been attempted in Lao PDR, but there is ample evidence (including from Thailand) of its efficacy in similar environments elsewhere. A logical strategy is to oversow with a broader array of well-adapted genetic material, and to initiate sowing on very widely scattered sites to maximise the rate of natural spread. Inclusion of pasture legume species in grassland areas will, over time, assist in the control of tall grasses and reduce the devastating environmental impact of wildfires. The communal land strategies could be implemented without any new by-laws on usage.
- *Simplicity*. The appropriate pasture/forage development technologies will not be sophisticated, and quick start-up over a broad range of sites will be feasible with hands-on, short duration training. Applicable innovative extension and delivery approaches have been developed in similar environments elsewhere.
- *Encompassing large numbers of smallholder producers*, and broad scale rangeland sowing, will demand the availability of low cost seed of an array of legume species. Imported seed is

⁶¹ Assuming free distribution of small quantities of fodder seed and the availability of on-farm labour.

exorbitantly expensive, but there are well-proven technologies for the production of high quality seed at low cost, within manual production systems on smallholder (rainfed) farms.

23. Species mixtures will typically be broad, to accommodate grazing pressure and edaphic variations. (Most of the species recommended will be adapted to persistence under the entire rainfall range.) Mixtures will be gradually modified in the light of local experience, but typically should remain broad for at least several years, given that it will take time for expression of long term production potential, persistence, and spread. For example, shrubby stylo is likely to be the most useful species for grazing land improvement in the long term, but is very slow and inconspicuous during the first two years. *Leucaena* will be strongly promoted, and is likely to be the key forage species for smallholder development. Various varieties well suited to most soil types and rainfall zones in Lao PDR, and it has high potential for all livestock production; its successful promotion will depend on use of superior cultivars, and of intensive establishment and management systems. It also has great potential for broader scale oversowing development. The range of successful species already being used for smallholder in Lao PDR will be retained in the programme. These will be complemented by other genetic material which is not well known in the country.

24. Smallholder forage development will initially focus on SLPNG household clusters. Development will include specific forage plots (for seed production/forage replication and for cut-and-carry utilisation) and legumes established into crops including cassava and maize.

25. Perennial forage plots will be established, typically of 0.25ha, which is a manageable area for establishment, protection from grazing, and for cut-and-carry utilisation; this area is also adequate to demonstrate the production benefits from improved forage supplies. Plots will be adjacent to the house for efficient utilisation and to enable use of farm-yard manure. Protection from dry season grazing is preferable, but is not imperative. (Dry season grazing typically does not impact severely on the subsequent wet-season productivity.) Plots will be based on broad mixtures. It is crucial to have conspicuous results from the first year of establishment, if plots are to be protected; in this context, the quick-establishing and very productive legumes such as Pigeon pea, *Leucaena*, and sunn hemp will play a key role. Species will vary depending on site, but will generally include, *inter-alia*⁶²:

Grasses:

- Mulato II (*B. brizantha* x *B. ruziziensis*) and drought tolerant lines of *Megathyrsus maximus* for most rainfall areas; the Atherton sterile ecotype of *Setaria sphacelata* for higher rainfall areas, and *Paspalum atratum* for seasonally wet areas. Some Napier types will be included for conspicuous early results, but will gradually be de-emphasised⁶³. All grasses will be established vegetatively.

Legumes:

- *Leucaena* (cv Tarramba or Cunningham) established in hedgerows at 1m spacing, using home-grown bare-root/ bare-stem seedlings, and *Gliricidia* established by cuttings.
- Sunn hemp, Pigeon pea, lablab, cowpea, and velvet bean (*Mucuna pruriens*), using proven locally available genetic material.
- *Desmanthus* spp, with the selection based on rainfall (*D. pernambucanus* for higher rainfall areas, *D. leptophyllus/ virgatus* for other areas.)
- *Stylosanthes scabra*, *S. guianensis*, *S. seabrana* and *S. hamata*, with the species depending on soil type; Wynn Cassia, Aztec atro; forage peanut (*Arachis pinto*), with the species determined by rainfall.

*Note: some free seeding types including the stylos will be included partly to encourage efficient spread into adjacent grazing areas. Small back-yard or kitchen nursery areas will be established to enable vegetative planting-out of key species, particularly the grasses and *Leucaena*⁶⁴, to*

⁶² See also <http://aciar.gov.au/publication/mn062>

⁶³ Napier is highly productive, but has inherently low nutritive value, especially when mature. Also, in recent years in Kenya there have been catastrophic impacts of Napier stunt virus on some lines of Napier. The spread of this virus to other lines of Napier, and geographically, is unpredictable, but the risks should be accommodated.

⁶⁴ For bare root, bare stem transplantation

improve establishment. A more detailed list of possible varieties is detailed in Appendix 4, Annex 3.

26. The program will support existing activities promoted under conservation agriculture programs, but with more emphasis on leguminous species with high potential for livestock production. Perennial and self-regenerating legumes will be established by undersowing / under-planting in crops including maize and cassava, to maintain soil fertility in the long term, and to provide convenient forage for utilisation by grazing or cutting management. (Note: No grass species will be used in these systems). The key leguminous species will be *Stylosanthes* spp, Wynn Cassia, *Desmanthus* spp, Glenn jointvetch (*Aeschynomene americana*), site-specific forage peanut lines, and with *Leucaena* and pigeon pea also included in more intensive production systems. *Leucaena* seedlings and forage peanut slips will be transplanted at the beginning of the growing season. Most legumes will be direct-seeded after the first weeding. A detailed list of potential forage species for use by SLPNG households is detailed in Appendix 4, Annex 1.

27. **Activity 3: Animal breeding.** Most livestock in the Programme area are indigenous species with low growth rates and final body weights. They do, however, carry the benefit of relatively high fecundity and local adaptation, including extensive foraging. Cross breeding of local breeds with introduced males of improved, adapted species, particularly for animals for fattening, is one avenue to increased productivity. Such species include the Red Sindhi for cattle, Bachthao for indigenous Lat goats and Mong Cai for pigs, all readily available in Viet Nam and used in Lao PDR. The crossbreeding of indigenous black pigs (Moo Lat, Moo Chid, Moo Markadon, and Moo Boua) with leaner European breeds (Duroc and Landrace) is already practiced by commercial smallholder farmers. As animal husbandry skills improve, the Programme will introduce improved sires to breed with indigenous females, leading to a progressive increase in livestock production and productivity. Such sires will be purchased by trained, specialised livestock breeding households through the NSLCP-RFSP livestock credit programme. Livestock breeding households, which will be trained and equipped to deliver fresh semen artificial insemination, will sell breeding services to villagers on a cash or in-kind basis. SLPNG grants will be used to finance artificial insemination equipment at specialised breeding households. Given the relatively small proportion of households in the Programme area that will take up crossbreeding opportunities under the Programme, the wide dispersion of indigenous and the Programme focus on producing crossbred stock for fattening, the NSLCP-RFSP is unlikely to significantly dilute indigenous breed genetics.

28. **Activity 4: Land use planning and allocation**⁶⁵. The Programme will, with PoNRE and DoNRE/DAFO support, assist SLPNG's villages to prepare or update their agro-ecological zoning and ecosystem analysis in order to plan and prioritize activities in agriculture and natural resource management (NRM) within their boundaries. These maps will be important for designating resources that need to be protected such as water sources and where the animals will be concentrated, as well as identify suitable land for supporting communal livestock production including planting forage and animal housing. Where land tenure has not yet been allocated the Programme will support participatory land use planning (PLUP) and allocation⁶⁶ and subsequent land use titling for households (husband and wife co-ownership) in Programme villages.

29. A comprehensive and systematic approach to land registration and titling in rural areas of Lao PDR cannot be implemented without the information and data provided in the PLUP maps and reports. The PLUP process will be applied for land use allocation in an entire village or group of villages. The PLUP process, coordinated at village level by a village land use and forest management committee (VLUFMC) and using satellite images or orthophoto maps, involves intensive discussions in the villages about present and future land use and the identification, classification and delineation of land use zones within the village administrative boundaries. These discussions and the resulting mapping should lead to a basic

⁶⁵ For a detailed discussion on land use planning and titling in Lao PDR, see <https://landportal.info/sites/landportal.info/files/RockF%20Systematic%20Land%20Registration%20Concept%20Laos%20Final%20Draft.pdf>

⁶⁶ The Project will follow the methodology described in the 2009 "Manual on Participatory Agriculture and Forest Land Use Planning at Village and Village Cluster Level", which has been endorsed by the National Land Management Authority (NLMA) and the Ministry of Agriculture and Forestry (MAF). Based in this methodology, the NAFRI published a "Handbook on Participatory Land Use Planning (equality) Toolbox" in 2012.

understanding of what areas can be identified as private (individual) land, what could be considered as collective or communal land and what constitutes state land areas at local level.

30. PoNRE/DoNRE in the project area will be financed to conduct systematic land registration in SLPNG villages. Land registration and titling in Programme villages is expected to generate the following positive effects: (i) legally recognised boundaries between settlement areas, agricultural land, livestock zones and forests; (ii) a reduction of land conflicts and encroachments through greater transparency of land use rights; (iii) increased opportunities for investment into land by villagers due to secure tenure and the possibility to use an individual title as a collateral for mortgage; (iv) support to a gradual transformation of agricultural use towards more permanent and/or intensive cropping systems; increase crop and livestock production in the longer term; (v) better protection of natural resources and the environment, e.g. by reducing the encroachment of cultivation into delineated forest areas; (vi) clear investment opportunities are identified in areas registered as state land; and (vii) give additional value to and make use of the supporting land use planning activities

31. The Programme will seek collaboration with the GIZ-financed Land Management and Decentralised Planning in Lao PDR project, adopting its methods and procedures for land use planning and titling. Subject to MoF agreement and in accordance with Article 78 of the Presidential Decree No. 003, 2012, the GoL, through the PoNREs and DoNREs in the Programme area, will make a significant contribution to the cost of implementing the land use titling programme through the recycling of household land titling fees back into the land use planning and survey programme.

Outcome 2. Rural households access sustainable and scalable rural financial services.

32. This Outcome would include 3 Outputs: *Output 3 - Financial services to the SLPNG members; Output 4 - Networked village funds in NSLCP districts; and Output 5 - National Agriculture Refinancing Facility.*

33. Considering the key role of the agriculture sector in the economy and consistent with the principles and recommendations embodied in the current key policies in the Lao PDR, draft 8th Five Year Development Plan, the timing is opportune to invest in development interventions that increase financial inclusion and, at the same time, effectively stimulate commercial market orientation in the smallholder farm economy. Farmers and rural entrepreneurs now need to position themselves to modernise and commercialise their businesses, focusing on generating profits through increasingly productive and cost-efficient operations that are geared to satisfying identified market demand. To achieve this, adjustments are required in the orientation of production systems, in the technologies employed both in primary production and product transformation, and in the business relationships between the various stakeholders involved in the key rural commodity chains in Lao PDR.

34. Despite past efforts taken to mobilise investment finance and working capital to support the operations of farmers and rural SMEs and investors, various financing gaps and constraints to effective financial inclusion still exist in Lao PDR. Adequate financial services, especially investment credit, are still only available to a limited number of smallholders and to a relatively small group of agri-companies, which are mostly large, modern entities. Further, while the need to support the microfinance sector and community-based financial service providers as a way to reach farmers and smaller rural SMEs is acknowledged, additional professional support is required to increase the financing volumes through such institutional arrangements and ensure that they are sustainable after external assistance ends.

35. To respond to the above types of challenges in the rural finance market in general, and in the livestock sector in particular, the design of the activities of NSLCP-RFSP Outcome 2 relies strongly on the lessons learnt from microfinance operations in Lao PDR, the expected trends and regulatory reforms in the financial markets, and the best practices developed for rural microfinance and value chain financing. The selected approach and interventions are clearly in line with the current policies of the GoL, which emphasise the need to modernise smallholder agriculture, to improve the quantity and quality of marketed produce and, particularly, to improve the availability of appropriate and sustainable financial service in rural communities in Lao PDR. The GoL also acknowledges the potential of NSLCP-RFSP for piloting new, innovative rural

finance approaches under the Programme, with the objective of replicating and upscaling the successful models nationwide.

36. The selected interventions that aim to effectively contribute to increased financial inclusion both in the rural communes of the NSLCP target districts and, when replicated and scaled up, more widely in rural Lao PDR, also reflect IFAD's current priorities in rural finance development. According to IFAD's overall policies and the current COSOP for Lao PDR, rural finance activities should support the overall objective of building enabling environments for the engagement of the private sector in providing rural jobs and generating rural income and for the development and promotion of pro-poor value chains. They should aim to increase the agricultural productivity and competitiveness of smallholders, enhance opportunities for market entry and diversify livelihood opportunities for both male and female workers, including off-farm activities. Within this development framework, the role of sustainable, community-based financial institutions is particularly important. These principles have been central to selecting the activities for rural finance support under NSLCP-RFSP. If successfully implemented, they can provide guidance and a platform for future efforts in increasing financial inclusion and agricultural financial services nationwide.

37. NSLCP-RFSP includes a sequential, three-pronged approach to developing rural financial services both in the NSLCP area and at national level. The three outputs under this Outcome includes: (i) financial services to the SLPNG members; (ii) networked village funds in NSLCP districts; and (iii) a national Agriculture Refinancing Facility.

Output 3. Financial services to SLPNG members

38. *Activity* Description. The now-closed LDP demonstrated a high unmet demand for livestock-related rural financial services in the Programme area. As shown in Appendix 1, the BoL-registered banks and MFIs are not yet capable or willing to meet this demand in the Programme districts. The LDP VLF credit scheme reached a large number of smallholder households, but was a subsidised, unsustainable solution for credit delivery, resulting in poor operational management, high arrears and less than optimal use of the Programme funds. Nonetheless, it is expected that some LAK 19.4 billion (USD 2.4 million) from the LDP credit scheme revolving fund will be available for lending to NSLCP-RFSP targeted households after the new Programme becomes effective.

39. Under the planned NSLCP, loans for capital investments and working capital are required for livestock investments by 5,400 household members of 300 SLPNGs, if the development targets of the Programme are to be met. In this situation the selected strategy is to (i) re-design the credit scheme for NSLCP-driven livestock lending based on appropriate rural credit practices, market-based interest rates, three year amortised loans with a one-year grace period for principle repayment and full operational sustainability; (ii) capacitate the NSLCP credit management team and particularly the scheme implementers from the district LWUs to be able to competently manage the NSLCP credit scheme; and (iii) after the first round of financing the SLPNG members in PY1-3, transfer the recovered principal of both the VLF credit funds and the new NSLCP credit scheme funds to the ARF (see Output 5), to be used as long-term refinancing capital for registered banks and MFIs in Lao PDR. It is acknowledged that the initial approach of project-driven credit is not the most desirable approach to developing sustainable financial services. However, given the centrality for project success of SLPNG members' early access to livestock credit and IFAD's delayed entry into the NSLCP, it is a required first step in converting the residual VLF and the new NSLCP credit funds into refinancing capital of the sustainable ARF financing mechanism, to be established under Output 5.

40. The investments of NSLCP-RFSP under Outcome 2, Output 3 include⁶⁷:

- funds to recruit an international rural finance advisor, partnered by national experts in microfinance training and community mobilisation, to finalise the re-design of the NSLCP-RFSP credit scheme, and to capacitate and empower the scheme implementers, particularly the LWU district staff, to successfully manage the NSLCP-RFSP credit operation (IFAD highly concessional loan allocation LAK 4.4 billion, or USD 550,000).

⁶⁷ See Project Costs Tables for detailed budgets for each rural finance-related NSLCP expenditure.

- additional credit capital from the IFAD highly concessional loan of LAK 15.2 billion, or USD 1.9 million, to be utilised for viable livestock investments in the NSLCP-RFSP credit scheme after the residual funds from the closed LDP credit (projected to be around LAK 19 billion, or USD 2.37 million) are fully used. As shown in Appendix 4, Annex 4, Table 1, this funding would be adequate to cover the projected first round loans of an average LAK 10 million (USD 1,250) to the targeted 5,400 trained members of the SLPMGs.
- Farmer contribution of about 20% of the investment costs through the construction of suitable animal housing and establishment of an appropriate forage area before receiving the loan.

41. The role of the support NGO would be critical to the success of the livestock credit provision under NSLCP. The NSLCP budget allocation for the purpose is based on the recruitment of a NGO-based team consisting of a senior international microfinance expert/team leader and two local microfinance training experts. The international expert would be employed for 120 days in PY 1, 80 days in PY 2 and 30 days in PY 3. Both of the local microfinance training experts would be recruited for 150 days in PY1, 100 days in PY 2 and 30 days in PY 3. The budget also includes allocations for relevant DSAs, travel costs and other expenses related to this capacity building assignment.

42. The Final Design Mission recommended a moratorium on new loan approvals and disbursements from the residual VLF funds until the new, appropriate livestock credit scheme rules and guidelines are in place. To complete this scheme re-design as soon as possible, IFAD/ADB will finance an international Rural Finance Expert to, jointly with the NSLCP management, design the new credit scheme guidelines by the end of 2016. The key tasks of this 30-day assignment would include: (i) finalise the re-design of the NSLCP-RFSP livestock credit scheme based on the agreements reached with the government and IFAD/ADB during the NSLCP-RFSP design process; and (ii) based on the re-design, draft the Implementation Guidelines (Operations Manual) for the NSLCP livestock credit scheme (see Appendix 4, Annex 3 (A) for ToRs). The draft TOR for the national and international TA team to support the implementation of Output 3 activities in PY1-3 is provided in Appendix 4, Annex 3 (B). The key tasks of the team can be summarised as follows:

- capacitate and empower the scheme implementers in the provinces and districts, particularly the district LWU staff, to be capable of implementing the NSLCP-RFSP livestock credit operations based on the principles of the new Implementation Guidelines;
- specify appropriate computing hardware and software to support livestock credit management; and
- proactively support the PY 1-3 livestock credit scheme implementation amongst SLPMG members in the Programme districts and advise in taking corrective actions when required.

43. The re-design of the NSLCP livestock credit scheme should be based on correcting the major errors in the design and practical implementation approach of the VLF under the now-closed LDP. These are detailed in the recent ADB-commissioned assessment⁶⁸ and summarised in Appendix I. The re-design should include, among other matters, the following principles that would be necessary to improve the basics of loan product design, the appropriateness of client selection, the standard of risk management, timely loan recovery and the overall impact of the scheme:

- the MAF/NPMO and supporting PAFOs and DAFOs are the owners of the livestock credit programme and must take full responsibility for its outcomes. The district LWU team are contracted by the Programme to manage livestock credit delivery, but remain subordinate to the NPMO/PAFOs/DAFOs management in the implementation of this output;
- the credit scheme borrowers should be selected from among the SLPMG members, trained under the Outcome 1 activities of NSLCP-RFSP;
- loans would be issued as group loans, and each borrowing group would be trained on the solidarity concept and obligations resulting from group guarantee;

⁶⁸ Timo H. Hogenhout and Bounhom Phothimat, 2015.

- for effective group guarantee, the SLPNG members would be organised in smaller sub-groups of 5-7 acquainted households, with strict enforcement of group guarantees in the case of repayment default;
- based on SLPNG training, each loan application would include a simple business plan, adapted from a range of Programme-prepared model plans, based on which each loan application would be carefully assessed by the scheme implementers;
- SLPNG training should be particularly focused on the subject of smallholder livestock production as a business and on directing investments and loans towards the most profitable type of investments (instead of the common practice of procuring new cattle largely for prestige and financial buffer purposes);
- the repayment capacity of each household should be assessed based on the total income of the households, not only based on the cash flow from the funded livestock activity, and the tendency for focusing on long single payment loans for large cattle should be avoided;
- the appropriate and maximum loan amounts and loan durations for each type of livestock investment would be defined based on livestock models developed for NSLCP-RFSP and not exceed 3 years (see Appendix 10);
- the interest rates for the NSLCP credit scheme would be increased to the level applied by the APB (currently 13% p.a.), which would make it possible to cover all the scheme implementation costs from the interest income without eroding the capital base of the scheme;
- to avoid the experienced problems with single payment loans under the VLF, principal repayment should be based on semi-annual instalments, with a one-year grace period for principle repayment;
- the establishment and operations of the revolving VLFs and their committees, which have not worked well, would be discontinued. At the same time the division of the credit scheme income would be revisited to better reflect the real work load and expenditures at each implementation level;
- In each district, the LWU would appoint full-time staff for the NSLCP-RFSP credit operations. Their costs would be paid from the interest income earned on the portfolio. Incentive payments should be continued and further developed to encourage full loan recovery;
- loan follow-up would be conducted in an active manner, with visits to each defaulting borrower immediately when the first 31 day arrears in a loan appear. In cases such as climate-related calamities or household health issues, new repayment schedules could be negotiated. In case of wilful default, prompt action should be taken to avoid the losses of public funds, including the sale of household assets such as cattle, motorcycles and televisions;
- misuse of loan funds for other purposes than indicated in the loan application should be sanctioned immediately when discovered; and
- based on the recommendations of the recent external audit, the missing checks and balances should be established to improve the financial management of the credit operations.

44. Based on the new credit scheme design, the supporting TA staff would train the scheme implementers on the new procedures. This would include both formal courses on the new implementation modalities and active on-the-job training in the NSLCP Head Office and the provincial and district offices. New disbursements from the existing revolving funds to NSLCP beneficiaries could start only when: (i) the scheme implementers, especially the district LWU staff are fully conversant with the new operational methods and (ii) the SLPNG members are adequately trained by the NSLCP staff and ready to present loan applications with appropriate business plans, land and water management plan where relevant and have satisfactory animal housing and forage plots in place. The utilisation of the additional credit funds from the NSLCP-RFSP budget would start only when the existing revolving funds inherited from the LDP scheme are fully disbursed. In the first three Programme years, the supporting TA would provide further training and direct implementation support on a continuous basis to ensure that loans are appropriately allocated and the credits are fully recovered.

45. Under NSLCP-RFSP, the livestock credit funds can in PY1-3 be used to finance first round livestock investments of the SLPNG members. All the interest income earned on the portfolio is likely to be required to cover the operational costs of the credit implementation. The recovered principal would be deposited on a NSLCP Revolving Account in the Regional Office of the Programme. After the establishment of the ARF (see Output 5), the accumulated capital on this account would be quarterly transferred to the ARF. From these funds, long-term refinancing capital can be issued to qualified, registered banks and MFIs, to encourage investments in agricultural production and processing in Lao PDR.

46. *Implementation Arrangements.* To ensure the successful implementation of Outcome 2, a Rural Finance Specialist would be employed for the NSLCP. His/her overall task would be to manage and coordinate the implementation of all Outcome 2 activities. The detailed TOR for this position is provided in Appendix 5.

47. The direct implementation responsibility for the NSLCP-RFSP livestock credit scheme would be with the current credit staff structure in the NSLCP. It consists of a Credit Manager and three full-time NSLCP staff in the NSLCP Regional Office in Luang Prabang. At the district level, the responsibility for implementation would be with the contracted full-time LWU staff, supported by part-time DAFO staff. The costs of the implementation would be paid from the interest income from the outstanding loans. As indicated above, a key task of the supporting TA, to be recruited with IFAD highly concessional loan funds, would be to ensure that the capabilities of this staffing arrangement are substantially increased so that the staff could professionally manage the reformed NSLCP-RFSP credit scheme.

48. For this Output and for the whole NSLCP-RFSP Outcome 2, it would be beneficial for this new type of IFAD approach to rural finance in Lao PDR to be supported by a senior international rural finance expert in the annual Supervision Mission teams. This would make it possible to ensure a professional and critical assessment of Outcome 2 progress annually, which would then allow for timely corrective actions in the implementation modalities of Outputs 3-5 even before the Mid-term Review.

Output 4. Networked Village Funds in NSLCP Districts

49. *Activity Description.* While the banks and registered MFIs do not yet effectively reach to the rural areas, informal financial service provision is very important in Lao PDR. The primary informal organisations offering financial services are Village Funds, also known as village banks. The VFs are community-based operations that accept deposits from their members and issue loans from these funds to their members. The VFs do not employ permanent staff and can operate with very small operational costs, which makes reaching operational sustainability much easier. The profits made from VF operations are divided amongst members based on their share of total savings. The VFs are widespread in Lao PDR. At the end of 2014, there were 4,815 VFs in the country with 464,000 members. In rural areas, a significant part of their lending is for agricultural purposes, including the financing of livestock projects.

50. In many respects it can be argued that the VFs have a good cultural and social fit in rural Lao PDR. VFs are relatively easy and low-cost to run, can be operated independently of banks in remote areas and can offer depositors good returns on their savings. At the same time, the majority of the VFs are assessed to be relatively poorly managed and face operational and sustainability problems. Furthermore, many rural villages still do not have operational VFs. In the NSLCP districts of Huaphan and Xieng Khouang provinces, for which complete data is available, only around 25% of the villages have a functional VF.

51. Establishing new VFs and improving the functioning of existing community-based operators through (i) capacity building and support services; and (ii) a clearer supervisory environment would be an important step forward for rural financial service provision and financial inclusion in rural areas. These actions could improve the level of trust and confidence in the VFs, enabling them to play a more effective role in providing financial services to low-income households. This could also lead to the building of linkages between the VFs and other financial institutions such as banks and MFIs, further developing opportunities for wider financial intermediation.

52. GIZ and the BoL have developed a systematic approach to expanding and strengthening the VF networks in Lao PDR. This approach is based on the establishment of 2nd tier support organisations

called Network Support Organisations (NSOs) in the provinces. To summarise the approach⁶⁹, GIZ, through its Access to Finance for the Poor (AFP) programme, establishes new VFs and supports them and selected existing VFs in their operational area. VFs that are established are totally savings-based, without any initial cash/grant injection. GIZ only provides basic equipment (safe-box, bookkeeping material) and focusses on technical support. This technical support is provided through GIZ project offices in the provinces that are, during the first year, transformed into registered, non-deposit taking MFIs. These NDTMFIs are established at the provincial level and act as NSOs (2nd tier) for their member VFs. NSOs charge the VFs for their capacity building and management support and provide liquidity management services, taking excess liquidity as deposits and lending the funds at a margin to VFs that need additional lending capital for their operations. The objective of the NSOs is to become sustainable in around 4-5 years by serving a minimum of 40-50 VFs, and continue on a permanent basis their operations as a management agent and an "apex bank" for their member VFs. The NSOs are minimum 90% owned by their member VFs, while the NSO staff can own a maximum of 10% of the NSO shares.

53. The AFP programme has established seven NSOs in Lao PDR. One of them works in the NSLCP project area in Luang Namtha province, covering two Programme districts, Singh and Nalae. This support operation has functioned well, and the VFs set up by GIZ in Singh (41 VFs) and Nalae (45 VFs) operate well, are financially and operationally self-sufficient, provide both savings and loans services and have an adequate system of self-regulation and monitoring. The NSO itself has already reached full operational sustainability, with the Operational Self-Sufficiency (OSS) at 106% at the end of 2015.

54. To increase financial inclusion in the NSLCP districts, the Programme would partner with the BoL/GIZ-managed AFP programme and make a focused effort to establish around 200 new, well-functioning VFs in the NSLCP districts. To achieve this, the Programme would support the establishment of three new NSOs in Luang Prabang, Houaphan and Xieng Khouang provinces and expand the operations of the already functioning NSO in Luang Namtha to cover Vieng Phou Kha district, in addition to the already-covered Singh and Nalae districts. The NSOs would help to establish in the NSLCP villages around 200 new VFs (about 20 per district in the three new provinces and in Vieng Phou Kha district in Luang Namtha) and support their systematic development as 2nd tier financial institutions throughout the Programme period. At the same time, the NSOs would develop into fully sustainable NTDMFIs, which would be self-sufficient by the time the NSLCP-RFSP closes.

55. By the end of the NSLCP-RFSP period, the 200 VFs are expected to build up a total membership of around 20,000 households, reflecting the GIZ experience of an average of 90 members in a VF after 4-5 years of operation. In all cases both the wife and the husband would be joint account holders. Based on the earlier performance records of the NSOs, these 200 VFs would, by the end of the Programme period, be expected to have a total savings balance of around LAK 52 billion to LAK 68 billion (USD 6.5 million to USD 8.5 million), which would create an adequate basis for active community-based lending in the villages, including loans for agriculture production, which currently form about 30% of the VF portfolio.

56. For this relatively large-scale operation to enhance the access to sustainable financial services in the Programme villages, a partnership would be formed between NSLCP-RFSP and the AFP programme of the BoL and GIZ. The total costs of establishing the NSO network and around 200 VFs in the NSLCP area and supporting them through the NSLCP-RFSP period is estimated to be around LAK 47 billion (USD 5.9 million). The current financing plan, under negotiations with the BMZ/GIZ, is that BMZ/GIZ would cover all the costs related to international staff, which represent 30% of the total costs, while the IFAD highly concessional loan contribution would cover about 70% of the total costs. Detailed costs estimates are presented in the Cost Tables detailed in Appendix 9.

57. The proposed VF and NSO-based approach would offer interesting opportunities to test options to further develop this community-based approach and to link it more closely to the operations of the formal financial sector. The NSOs already act as apex banks for excess liquidity of the VFs and channel these funds to other member VFs that want to expand their own portfolio operations. In these operations the mature VFs have shown that they can handle these external loans prudently, recover them from their members and at

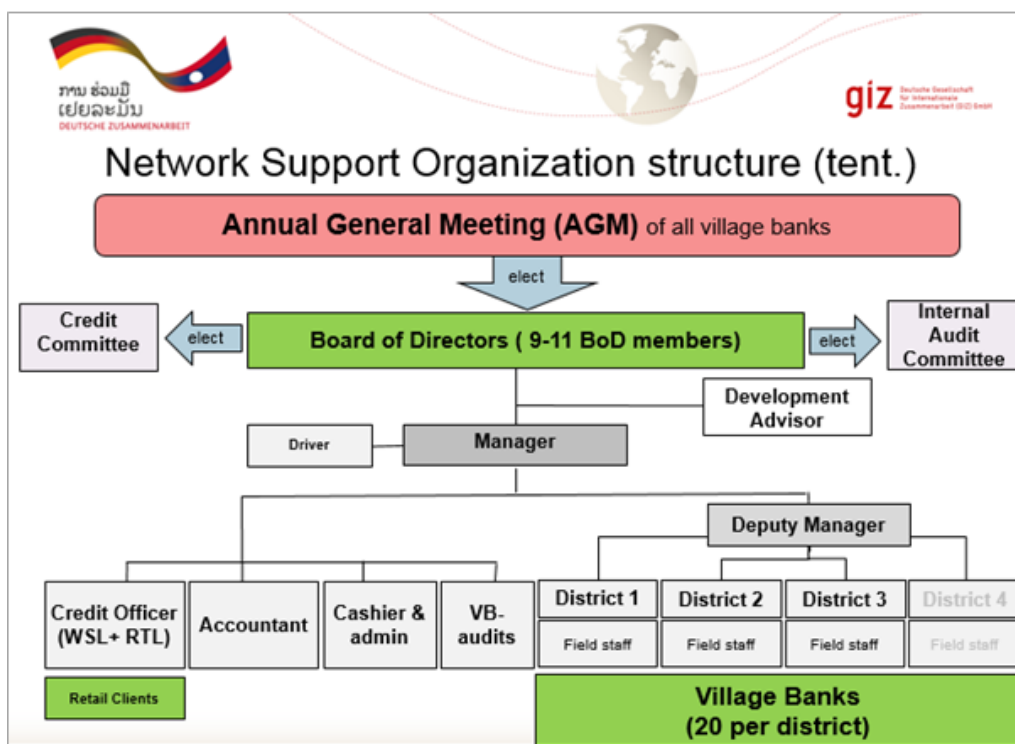
⁶⁹ For more information on the approach and the NSO process, see Appendix I.

the same time increase their own profits. The next step would be a model, in which the NSO would externally borrow “wholesale” funds and channel these funds at a margin to their member VFs for on-lending. As indicated in Appendix 1, mature VFs have already expressed their interest in these kind of more developed funding operations, especially if they received appropriate capacity building on loan appraisal and risk management. The proposed NSLCP-RFSP intervention provides an opportunity for the BoL/GIZ and the NSOs to pilot this type of an option, particularly when the planned ARF described in Output 5 of NSLCP-RFSP becomes operational in PY2.

58. **Implementation Arrangements.** The Output 4 operations with VFs and NSOs would be implemented by the AFP team of the BoL and GIZ. At the Programme start-up, a comprehensive Implementation Agreement for the whole Programme period would be signed between the GoL/NSLCP-RFSP and the BoL/GIZ. The Implementation Agreement would include, in addition to the detailed description of Output 4 activities, a budget and a financing plan indicating the financing shares of the NSLCP-RFSP and the BoL/GIZ (and other potential financiers) during the Programme period.

59. The implementation process would start as an AFP/GIZ project operation by establishing VFs in the target villages. These VFs would then become the owners of the new 2nd tier, province-based NSO, owning 90% of the NSO-NDTMFI, while the NSO staff can own a maximum of 10% of the NSO shares. As shown in the tentative organogram below (Figure 2), the NSO management structure would consist of the Annual General Meeting, Board of Directors, the relevant committees and full-time professional staff to manage the operations with the member/owner VFs. GIZ would provide international staff to plan and manage the activities in the four provinces and a junior international advisor to each of the three new provinces, in which the implementation takes place. The national staff in an NSO would average 11 staff members. With progressively increasing income, the NSOs become increasing less dependent on the external support, with the aim of all the new NSOs reaching full sustainability by the end of the NSLCP-RFSP period.

Figure 2. Structure of Network Support Organizations



60. The NSLCP-RFSP management and IFAD would follow-up the progress of the NSO and VF support operations through reports and periodical field assessments and supervision. As the payments of the NSLCP-RFSP contributions to the implementing agents (GIZ/BoL) would be based on the progress achieved as measured by verifiable performance indicators (such as number of VFs established, the deposit balances accumulated etc.), the reporting and monitoring system of the Programme would need to be both practical

and capable of producing appropriate and timely reports to the Programme management to justify the performance-based payments.

Output 5. Agriculture Refinancing Facility

61. *Activity Description.* While the initial focus of the Programme would be on supporting the NSLCP-RFSP livestock credit programme and the emergence of networked-VFs in Programme districts and provinces, in the medium-term, the Programme would support the GoL in developing innovative and nationwide methods for agricultural and rural development finance promotion in Lao PDR. In particular, the NSLCP-RFSP would assist the GoL to establish a national ARF to stimulate the participation of prudentially approved banks in agriculture sector lending and MFIs and associated VFs in agricultural and rural development finance operations in Lao PDR.

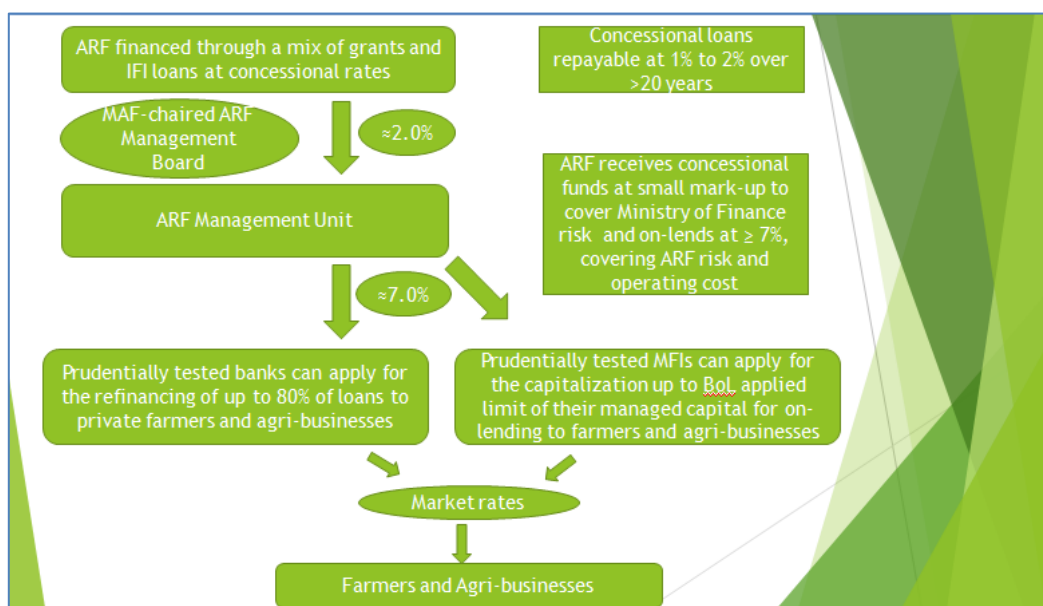
62. The ARF would be a national support mechanism that would receive funding from existing grant funds held by the MAF, from NSLCP-RFSP and from future credit lines from IFIs, and would apply those funds to refinance, at discounted lending rates, a portion of lending by prudentially-approved commercial banks and MFIs to targeted agriculture sectors, in line with the national agricultural development strategy. Approved commercial banks could have up to 80% of their approved lending to agriculture and agri-business refinanced through the ARF at rates that significantly increase their lending spread and, therefore, reduce their credit risk. Approved MFIs and associated VFs would be eligible for discounted block loans up to their legal borrowing limits for lending for agriculture and rural development investments. As evidenced in a number of countries that have adopted this structure (see Box 1 for examples of IFAD-supported refinancing structures), refinancing creates a strong incentive for financial institutions to lend to the agricultural sector. This, in turn, expands financial sector knowledge of agricultural and rural investment opportunities and builds their confidence in lending to the sector. Typically, ARF facilities can be withdrawn after about 10-15 years, by which time rural credit demand is being largely met by the commercial credit sector without this support mechanism. The diagram below shows the basic operational approach of the planned ARF.

Box 1: Refinancing Facilities in Other Countries

IFAD has supported successful refinancing facilities in various countries with smallholder-dominated rural sectors. In the Republic of Macedonia, it helped in 2002 with USD 5 million capital to establish the Agricultural Credit Discount Facility (ACDF). By 2005, over one thousand agricultural loans were refinanced through the ACDF. Four banks and two large MFIs actively participated. Around 62% of the loans were for agricultural production and 30% for processing companies. As the Government saw the ACDF as a key instrument to increase agricultural financing, it allocated in the late 2000s large amounts of unused World Bank funds to the facility, as means to modernise the country's agricultural sector.

In the Republic of Armenia in 2006, IFAD initiated the establishment of the Rural Finance Facility (RFF) with seed capital of USD 8.95 million. As the facility proved to be popular among the financial institutions and reached its target group, other financiers including the World Bank, the Millennium Challenge Corporation and the Armenia Government provided additional finance. By 2013, eight commercial banks and 6 leading MFIs used the RFF services to actively increase their rural outreach. Thousands of production and agri-processing loans were financed and the total refinancing portfolio of the RFF grew to over USD 25 million. Learning through their partnership with the RFF that rural finance can be profitable, banks and MFIs are today much more willing to use their own capital resources to finance rural loans.

Figure 3. Structure of the Agriculture Refinancing Facility



63. The MAF and the BoL regard the proposed establishment of the ARF as a new, more systematic and market-based approach to agricultural finance support in Lao PDR. In recent years, two programmes have piloted small-scale

activities of a similar kind and will both end in 2017 (Lao Access to Finance Fund of the BoL/KfW and Making Access to Finance More Inclusive to Poor People of UNCDF). The GoL sees ARF as an instrument to significantly scale up these operations and eventually establish them nationwide. With appropriate, proactive promotion in the financial sector, the BoL projects a significant demand for the ARF services for two main reasons. Firstly, financial institutions in Lao PDR, while often liquid with short-term funds, lack capital for longer-term lending. The ARF would make this long-term capital available at affordable terms, which is expected to stimulate bank lending especially to agri-processing investments in the key value chains, including the livestock sub-sector. Secondly, various mature MFIs, including NSOs, are planning to expand their rural outreach, but lack lending capital to do it. The ARF tranche-based refinancing would make this possible, in this manner creating opportunities for increased financial inclusion in rural districts. In the view of the BoL, the NSLCP-RFSP allocation for refinancing capital is likely to be fully used in a short period of time, and it recommends actions to raise more refinancing capital for the ARF from other sources when the Facility becomes operational, including unused MAF funds and new loans from IFIs.

64. NSLCP-RFSP would support the establishment of the ARF with the following investments:

- recruitment in the first Programme Year (PY) of a short-term Senior Rural Banking Expert to support the final design of the ARF, to draft the relevant By-Laws, Investment Guidelines and Subsidiary Loan Agreements for the Facility and to provide implementation support for the start-up phase of the ARF in PY 2 and PY 3 (LAK 1.3 billion, or USD 161,000). The draft TOR for the Senior Rural Banking Expert is provided in Annex 3 (C) of this Appendix;
- funding to finance the costs of the initial due diligence processes with applicant banks and MFIs (LAK 648 million, or USD 81,000);
- an allocation to support the initial ARF Management Unit establishment costs and early operational costs (LAK 1.4 billion, or USD 174,000);
- a 4WD vehicle for the ARF (LAK 248 million, or USD 31,000);
- start-up refinancing capital of LAK 8 billion (USD 1 million) from NSPCP-RFSP/IFAD highly concessional loan, to be matched by a similar allocation from the GoL.

65. The ARF would be sited in the BoL, which would establish a small, self-financed ARF Management Unit, which would cover its operational costs through a mark-up on the refinancing funds it disburses. The ARF would be managed by a Management Board, chaired by the Minister, MAF or his/her representative, with the MoF providing the vice chairperson. The Management Board would set the ARF refinancing policy and provide overall guidance and oversight. The actual refinancing decisions would be made by the ARF

Loans Committee, consisting of the representatives of the MAF, the MoF and the BoL, based on the assessments and recommendations of the ARF Management Unit.

66. The ARF would be designed, with international TA support in PY 1 of NSLCP-RFSP and established in PY 2. It would be initially capitalised by a mix of IFAD highly concessional loan and MAF grant funds and be piloted to support commercial bank and MFI lending to larger-scale animal production and related agribusiness investments predominantly in the NSLCP area. If assessed by the ARF Management Board as successful over its first 18 months of operation, the ARF would be further capitalised by: (i) the NSLCP Output 3 livestock credit funds; (ii) IFIs planning support to the Lao PDR agricultural credit market; and (iii) MAF's existing development funds, and would be progressively scaled up to support agricultural lending nationally.

67. The final design of the ARF, to be completed in PY 1, would include the detailed Investment Guidelines for the Facility as well as the operational procedures and systems to be applied in the refinancing activities between the ARF, the financial institutions and their clients. The ARF Guidelines will clearly state that, for banks, only agriculture sector loans can be refinanced, and, for MFIs/VFs/NSOs, that all the refinanced capital must be only used for agricultural and rural development loans. For banks, this will be monitored during approval of individual refinancing loans and then later verified in practice during field visits by the ARF and Programme supervision missions. For tranche loans to MFIs/VFs, the same rules concerning sub-sectors will apply. Because of the tranche-approval approach, however, the monitoring during implementation will be more important. This will require accurate reporting by the MFIs/VFs, supported by active field inspections by the ARF to confirm that the provided information is correct and the received capital has been used for the correct purposes by the final borrowers.

68. Among the key features of the planned ARF operations, the following are likely to be of importance:

- to avoid refinancing the lending operations of weak financial institutions and the related bank risk, the institutions that have expressed their interest in taking part in the ARF activities would be prudentially evaluated by the ARF Management Unit with the support of international technical assistance. In addition to the use of standard evaluation techniques (such as capital adequacy, asset quality, management, earnings, and liquidity (CAMEL)), particular attention would be paid to the following type of issues: (i) adequacy of capital base, (ii) portfolio quality, (iii) overall management capacity, (iv) risk management capacity and (v) experience in small and medium enterprise financing. Two separate set of criteria for the Participating Financial Institution (PFI) selection would be used, one for commercial banks, one for registered MFIs;
- the GoL would lend the capital for refinancing operations to the ARF at 2% p.a. This would cover the IFAD loan service charge and the potential foreign exchange risk. Refinancing capital would be lent to banks and MFIs in LAK at 7% p.a., providing them with long-term capital at affordable cost and at the same time giving the ARF an adequate mark-up to cover its operational costs;
- as the full credit risk in on-lending operations would be with the PFIs, each PFI would be allowed to apply to the sub-loans their own policies on loan appraisal, collateral requirements, grace periods and interest rates;
- loans of commercial banks, which are larger, would be refinanced one by one; refinancing to MFIs would be allocated based on tranches (for instance, between LAK 400 million and LAK 4 billion or USD 50,000 to USD 500,000) to cater for large numbers of small microfinance clients, up to the MFIs legal borrowing limits;
- each borrower, either an individual or a company, would contribute a minimum of 20% to the cost of the enterprise for which the refinanced investment loan/leasing contract is sought. Percentage shares of the maximum ARF refinancing could reflect the GoL policies and vary depending on the loan purpose, sub-sector and the duration of the loan. As a start-up position, the maximum refinancing amount allowed for an agricultural project of an individual farmer/entrepreneur could be LAK 120 million (USD 15,000) and for an agri-company, LAK 1.2 billion (USD 150,000);
- to support and further develop the planned NSLCP-RFSP operations with the NSOs and VFs, the option of channelling incremental credit funds to mature, well-managed VFs could be piloted through the ARF. The NSOs, as BoL-registered MFIs, can qualify as PFIs in the refinancing

operations. In the NSLCP project area, the NSO in Luang Namtha province is well-functioning and became operationally sustainable in 2015. Piloting with the ARF funding in this area could take place in the two NSLCP districts, Singh and Nalae, which, between them, have around 100 well-performing, growth-oriented VFs;

- to encourage savings activity and the integration of the rural companies and population into the financial market, each borrower benefiting from the ARF operations would open a current/deposit account in the lending bank and use it as an instrument for the improved financial management of their enterprises; and
- the PFIs would repay the refinanced portion of the sub-loan back to the ARF in accordance with the repayment schedule set for the sub-loan. The repaid amounts would be revolved and used by the ARF as capital for new refinancing operations.

69. *Implementation Arrangements.* The ARF would be set up as an operationally independent unit in the BoL, to be independently managed and having its own externally audited accounts. Its Management Board would be responsible for the ARF policy making and for other standard Board functions. The Loans Committee would be responsible for the approval or rejection of refinancing applications from PFIs.

70. The implementation of ARF financing operations and the day-to-day management of the refinancing activities would be the responsibility of a small, but highly professional unit, the ARF Management Unit. The staff of the Unit could consist of a Director, two Refinancing Officers, an Accountant/Administrator and a Driver. The Management Unit would be located in appropriate offices in Vientiane. The appointment of an ARF Director, acceptable to IFAD, would be a condition for the initial release of refinancing funds from NSLCP-RFSP to the ARF. In its early years of operations, annual international TA support would be provided to the ARF operations financed from the IFAD highly concessional loan. Experiences from IFAD-supported refinancing operations in other countries would be utilised to develop appropriate IT-based management and accounting systems for the ARF refinancing operations. As shown in Appendix 4, Annex 4, Table 2, at the projected interest rates, operational costs and refinancing volumes, full ARF operational sustainability would be reached by the end of the fourth year of its operations.

Outcome 2: Benefits and Impact

71. Significant benefits can be assumed to result from the successful implementation of Outcome 2 activities. For Output 3, the reformed NSLCP livestock credit fund is expected to work with some 5,400 households that would be trained in commercial smallholder livestock production and marketing practices. After training provided by the NSLCP implementers, most of these SLPNG members are assumed to borrow from the Project credit facility. Livestock models shown in Appendix 10 clearly demonstrate that, if the loan funds are used appropriately for the planned production activities, significant benefits would accrue for the borrowing households concerning both household incomes and asset creation.

72. For Output 4, the ultimate benefits and impact for the NSLCP-RFSP target population would result from the establishment of 200 VFs in the rural communities of the Programme area. By the end of the NSLCP-RFSP period, an estimated 20,000 households would be expected to have deposit accounts in these VFs and would actively use the VF credit services to finance their income generating activities. As the total savings balance and portfolio of these VFs would, by the end of the Programme, be expected to reach around LAK 52 billion to LAK 68 billion (USD 6.5 million to USD 8.5 million), the resulting benefits can be assumed to be significant. These benefits would continue beyond the Programme life and increase in volume as the operational volumes of VFs grow.

73. For Output 5, it is difficult to estimate the direct benefit and impact that would result from the operation of the planned ARF. If the main users of the ARF would be commercial banks, most of the refinanced loans are likely to be issued to develop and expand the operations of agri-companies. Based on experiences from other countries, the indirect benefits from this type of loans to rural low-income population can be significant, both in creating new employment opportunities and, especially, through the incremental volumes and values of agricultural produce that these companies procure from smallholders. If, on the other hand, the users of the ARF services would be mainly registered MFIs, including the NSOs, the wholesale loans issued by the ARF can reach thousands of low-income households in the NSLCP villages. Finally, if the ARF operations start successfully and are scaled up nationwide with finances from other sources than the NSLCP-RFSP, the

long-term impact of this pilot operation on rural and agricultural finance may be critically important for efforts to develop and modernise the Lao PDR agricultural and rural sectors.

Outcome 2 Sustainability, Exit Strategy and Scaling Up

74. For the rural finance enhancement activities of NSLCP-RFSP, sustainability issues have been at the core of the design approach. For Output 3, after operating the reformed livestock credit scheme as a short-term solution, the plan is to use the repaid capital of both the LDP and NSLCP credit as seed refinancing capital of the planned ARF. This option would provide an appropriate exit strategy for NSLCP-RFSP livestock credit activity, aiming at fully sustainable rural finance solutions.

75. For Output 4, the VFs, due to their operational mode, tend to reach full sustainability at very low operational volumes and improve their profitability as the savings and lending volumes increase. For the 2nd tier MFIs, the NSOs, the experience from the existing operations in Lao PDR show that full operational sustainability can be reached in 3-4 years. If successfully implemented under the NSLCP-RFSP, the VF support approach, based on the services of the NSOs, can easily be expanded and scaled up in other parts of the country.

76. For the ARF, the refinancing activities would be conducted only with banks and registered MFIs that pass the due diligence tests and have already reached full institutional sustainability. The ARF itself, operating with a professional but small staff team, can reach sustainability at relatively low financing volumes with the margin it would charge on the refinancing capital. If the results of the planned pilot operations in the NSLCP area justify expansion, this pilot activity aims at the future scaling up and wider application of the ARF instrument to stimulate the national agricultural finance market.

Outcome 2 Risks and Issues

77. Specific risks to the successful implementation of the rural finance enhancement activities of NSLCP-RFSP are listed below in Table 1, with comments on mitigating issues and mechanisms:

Table 1: Outcome 2: Potential Risks and Mitigating Issues

Potential Risks	Likelihood	Severity	Mitigating Issues
NSLCP livestock credit would face the same problems in credit delivery and loan recovery as the largely unsuccessful LDP credit operation.	M	M	With major investments in scheme re-design, target group selection and focused, professional training and mentoring of LWU district teams, the aim is to avoid the earlier encountered problems.
Smallholder livestock producers are too poor to save and borrow in village funds.	M	M	Pre-design reviews and mission findings indicate strong interest among the target group in safe, interest earning savings facilities and the related VF loan facilities.
The formal banks and registered MFIs are not interested in rural expansion, even with the support of cheaper refinancing capital.	M	M	Various interviewed MFIs and mature VFs indicated significant interest to borrow for portfolio expansion. The proactive approach in the marketing of the ARF services is expected to raise the interest of commercial banks, as has happened in other countries.

Annex 1: Suitability of forages for different uses

1. Information taken from: P.M. Horne & W.W. Stur. Developing forage technologies with smallholder farmers: how to select the best varieties to offer farmers in southeast Asia. Publication Code: MN062, ISBN: 1 86320 271 4, (1999). To be retrieved from: <http://aci.gov.au/publication/mn062>

Table 1: Suitability of forages for different uses

	WAYS OF GROWING AND USING FORAGES									
	Cut & carry plots	Grazed plots	Living fences	Hedgerows	Improved fallows	Cover crops in annual crops	Cover crops under trees	Ground covers for erosion control	Legume supplementation for long dry season	Legume leaf meal (dried)
Grasses										
<i>Andropogon gayanus</i>	••	•		•						
○ <i>Brachiaria brizantha</i>	••	•		•						
○ <i>Brachiaria decumbens</i>	•	••						•		
○ <i>Brachiaria humidicola</i>	•	••						••		
○ <i>Brachiaria ruziziensis</i>	•	••						•		
<i>Panicum maximum</i>	••	•		•						
<i>Paspalum atratum</i>	••	••		••						
<i>Pennisetum purpureum</i> and hybrids	••			•						
○ <i>Setaria sphacelata</i>	••	•		••						
Legumes										
<i>Arachis pintoi</i>		•					••	••		
<i>Calliandra calothyrsus</i>	••		•	•					•	
<i>Centrosema macrocarpum</i>	•				••	••	•	•		
<i>Centrosema pubescens</i>	•				••	••	•	•		
<i>Desmanthus virgatus</i>	••			•						••
<i>Desmodium cinerea</i>	••			••						
<i>Gliricidia sepium</i>	••		••	•					•	
○ <i>Leucaena leucocephala</i>	••	•	•	•					••	••
<i>Stylosanthes guianensis</i>	••	•		•	••	••	•		••	••

○ Warning - see notes in the section 'Special considerations'

Table 2: Recommended forages for different climates and soils

	CLIMATE			SOIL FERTILITY AND ACIDITY		
	Wet tropics with no or short dry season	Wet/dry tropics with long dry season	Cooler tropics (e.g. high elevation)	Fertile (neutral to mod. acid soils)	Moderately fertile (neutral to mod. acid soils)	Infertile (moderate to extreme acid soils)
Grasses						
<i>Andropogon gayanus</i>	•	••		•	•	•
<i>Brachiaria brizantha</i>	•	••	••	•	••	•
<i>Brachiaria decumbens</i>	•	••	••	•	••	•
<i>Brachiaria humidicola</i>	••	•	•	•	•	••
<i>Brachiaria ruziziensis</i>	••		•	••	•	
<i>Panicum maximum</i>	••	•	•	••	•	
<i>Paspalum atratum</i>	••		•	•	••	•
<i>Pennisetum purpureum</i> and hybrids	••		•	••	•	
<i>Setaria sphacelata</i>	••	•	••	••	•	
Legumes						
<i>Arachis pintoi</i>	••		•	••	••	
<i>Calliandra calothyrsus</i>	•		••	•	••	
<i>Centrosema macrocarpum</i>	••	•	•	••	•	
<i>Centrosema pubescens</i>	••	•		••	•	
<i>Desmanthus virgatus</i>	••		••	••	•	
<i>Desmodium cinerea</i>	•	•		•	•	
<i>Gliricidia sepium</i>	••	••		•	••	
<i>Leucaena leucocephala</i>	••	••	•	••	•	
<i>Stylosanthes guianensis</i>	••	••	•	•	••	••

•• = recommended • = possible no stars = not recommended

Special considerations

1. In addition to the information presented in Tables 1 and 2, there are particular situations which require special consideration when selecting forages to offer farmers:
2. Forages for sheep, goats and young cattle: Warning -- do not feed *Brachiaria brizantha*, *Brachiaria decumbens*, *Brachiaria mutica* or *Brachiaria ruziziensis* to sheep, goats and young cattle. If fed large amounts, these animals can suffer from photosensitization which often results in death. *Brachiaria humidicola* can be fed to sheep, goats and young cattle but only in small quantities.
3. Forages for monogastric animals Warning -- Some species can be toxic to monogastric animals when fed in large amounts. *Setaria sphacelata* can be toxic for horses, since it contains oxalates. *Leucaena leucocephala* can be toxic to monogastric animals, since it contains the chemical compound mimosine. It is generally recommended that the diet of monogastric animals should contain no more than 10% of *L. leucocephala*. However, it can be fed in large amounts to ruminants (e.g. cattle and goats) since they are able to break down mimosine in the rumen.
4. Forages for shaded areas Most forage species will grow as well in lightly shaded areas (such as under old coconuts) as they do in open areas. Species which are often used for grazed plots in light to moderate shade are *Brachiaria humidicola*, *Stenotaphrum secundatum* and *Arachis pintoi*.
5. Farmers occasionally ask for forages to grow in heavily shaded areas. There are no species that will grow well in such situations, but some species are better adapted to surviving in moderate shade. *Arachis pintoi*, for example, can be used to cover the ground and suppress weeds in shaded areas, but they will not produce high yields. Other species that can survive in moderate shade are *Centrosema pubescens*, *Centrosema macrocarpum*, *Paspalum atratum*, *Panicum maximum*, *Setaria sphacelata*, *Brachiaria brizantha*, *B. decumbens*, *B. humidicola* and *Stenotaphrum secundatum*.
6. Forages for areas with a long dry season Forages need water to grow, keep cool, and to take up nutrients from the soil. While there are no miracle forages that are productive throughout a long dry season, some species are better adapted to dry environments than others (see Table 2). Some tree and shrub legumes, such as *Leucaena leucocephala*, have root systems that can reach moisture deep in the soil. This allows them to grow and retain their leaves longer into the dry season than other forages. Some grasses and herbaceous legumes, such as *Andropogon gayanus* and *Stylosanthes hamata*, are also able to maintain green leaf long into the dry season.
7. Forages for acid, infertile soils. All forages grow well on fertile or moderately fertile soils. Some forages, such as *Pennisetum purpureum* and hybrids, will only grow well on fertile soils.
8. Many of the forages recommended in this booklet will grow on infertile soils and some (such as *Brachiaria humidicola* and *Stylosanthes guianensis*) will grow even on very acid, infertile soils (see Table 2). However, no species will produce high yields on infertile soils unless manure or fertiliser is applied. On extremely infertile soils, forages may not contain enough nutrients for good animal growth.
9. Forages for very alkaline soils. Most forage species can grow in alkaline soils. Some are particularly suited to high-pH soils. These are *Leucaena leucocephala*, *Desmanthus virgatus* and *Brachiaria humidicola*. One species which does not grow well on very alkaline soils is *Stylosanthes guianensis*.
10. Forages for waterlogged soils Most forages will tolerate a few days of waterlogging but few can grow well in soils which are waterlogged for extended periods. Some forage species that can tolerate waterlogging better than others are *Brachiaria mutica*, *Paspalum atratum*, *Setaria sphacelata*, *Brachiaria humidicola*, *Macroptilium gracile* and *Codariocalyx gyroides*.
11. Forages for areas that are burnt regularly. Most forage grasses will tolerate burning as their growing points are close to the ground (e.g. *Brachiaria* species). Most forage legumes have all their growing points high above ground and are easily killed by fire (eg. *Stylosanthes guianensis*, *Centrosema pubescens*). However, these legumes often regenerate from seed after fire. One legume which can survive even severe fires is *Leucaena leucocephala*.

Annex 2

International Forage Consultant Terms of Reference

Job Title:	Forage and Seed Production Advisor
No. of positions:	1
Duration:	2 person months (total) over 3 years
Recruitment:	International
Reports to:	Project Coordinator on operational matters and the Deputy Project Coordinator and MAF-DAEC on technical matters

Purpose

1. The Northern Smallholder Livestock Commercialization Project-Financial Services Programme (NSLCP-RFSP) is a development programme supported with finances from the Asian Development Bank (ADB) and International Fund for Agricultural Development (IFAD). The overall Development Objective of NSLCP-RFSP is: "smallholder livestock farmer household income increased." The Programme would have two main outcomes: (i) smallholder livestock producers adopt productive technology; and (ii) farmers access sustainable and scalable credit services. The Programme would be primarily implemented in 12 districts and approximately 200 villages in Houaphan, Luang Namtha, Luang Prabang and Xieng Khouang provinces in northern Lao PDR. While focusing on the piloting and implementation of its rural finance operations in these areas, a major target of NSLCP-RFSP is to contribute to the overall development of sustainable rural financing systems and methods that are scalable and can be applied nationwide in Lao PDR.

2. To strengthen the capacities of the MAF-DAEC and participating PAFOs/DAFOs to implement and oversee this programme, it is proposed to hire a Forage and Seed Production Advisor for a period of 2 person months over 3 years. The location will be Vientiane, Lao PDR, with at least 70% field travel. In collaboration with the DAEC, the Forage and Seed Advisor will:

Key Responsibilities and Duties of the Forage and Seed Production Advisor

3. Maintaining a good understanding of the technological, operational, institutional and other innovations and good international practices on forage and forage seed development in the region and globally, the responsibilities include (but are not limited to) the following:

- (a) Advise the DAEC and NAFRI on the logical and effective implementation of activities under Outcome 2, Activity 2 Building local capacities for climate-adapted forage seed and cutting supply;
- (b) Identify, nationally and internationally, available climate-adapted forage varieties with potential for integration into smallholder farm cropping and livestock systems in Lao PDR uplands, including varieties suitable for grazing land reinforcement;
- (c) identify and support implementation of opportunities for improved grazing land management by smallholder farmers, both individually and through group action, and propose investments for their realization;
- (d) propose and support implementation of climate-adapted strategies for smallholder farmer and farmer group conservation and storage of fodder;
- (e) identify and support implementation of climate-adapted strategies for smallholder farmer-based forage seed and vegetative material production to jump-start Programme forage interventions, including a view to the future commercialization of such strategies;
- (f) assist the MAF-DAEC to prepare a forage manual for use by technical support staff and farmers;
- (g) Identify the capacity building needs of different implementers and advise on how these needs can be addressed to ensure their effectiveness in terms of Project outcomes;

- (h) Support the NPMO in developing appropriate strategies to inform potential partners of available Project support under Outcome 1;
- (i) Advise the NPMO on how to enhance synergies with other programmes;
- (j) Advise the Programme on the best learning options for study tours and exchange visits;
- (k) Coach, mentor and train the MAF staff in all aspects of sustainable forage and forage seed production;
- (l) Support NPMO staff in a timely manner in the preparation of their contribution to the Programme APWB and annual procurement plan;
- (m) Advise the NSLCP-RFSP on training opportunities and exposure opportunities;
- (n) Support the NPMO and MAF to create collaborations with the private sector;
- (o) Attend meetings/workshops under the Programme and offer advice/technical opinion with special focus on those that may affect Outcome 1, Activity 2 performance;
- (p) Advise the MAF-DAEC on new developments about policy and innovations in sustainable forage and forage seed production and forage-based animal nutrition and best practices.

Qualifications for the Forage and Seed Production Advisor

4. Formal academic qualification in agriculture or natural resource management with at least 10 years at a senior level in sustainable forage and forage seed production in a developing country, including in Asia. S/he should have extensive exposure to participatory processes at smallholder level and in the regulation of forage genetic material. Experience with institutional strengthening and/or innovation in agriculture and livestock agencies will be an added advantage.

5. The person should be mature, team oriented professional with good analytical and good communication – able to make easily understandable technical inputs on sustainable forage and forage seed production and distribution. He/She should be able to strike rapport with personnel at different levels, including policy makers, international organizations and other stakeholders. A strong self-motivated individual working with no or minimal supervision and able to travel to the rural areas and meet tight deadlines. The person should have excellent skills in written and spoken English and be fully conversant with computer use.

Minimum Qualifications

- MSc in agriculture or natural resource management or similar discipline;
- At least 10 years of practical experience in sustainable forage and forage seed development, of which at least 5 years working and living in developing countries;
- Good understanding of livestock and forage production systems in developing countries and Asia and Lao PDR in particular as well as extensive exposure to innovations;
- Excellent knowledge of innovations (in forage species and production systems, including sustainable seed production) worldwide.

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	MSc or higher qualification	10
2	Length and variety of practical experience in sustainable forage and forage seed production at smallholder and commercial levels	20
3	Depth of familiarity with the respective core knowledge with respect to: <ul style="list-style-type: none"> • Sustainable forage production by smallholder farmers; • Sustainable production and distribution of forage seed and vegetative planting material; • Practical experience in animal husbandry and nutrition; • Participatory development of forage and seed production programmes in developing countries 	20 20 10 10
4	Experience with project management, in particular those funded by International Finance Institutions	10
	TOTAL	100

Annex 3

A. Short-Term Technical Assistance to Re-Design the NSLCP Livestock Credit Scheme

Terms of Reference

Background

- 1 The Northern Smallholder Livestock Commercialization Project-Financial Services Programme (NSLCP-RFSP) is a development programme supported with finances from the Asian Development Bank (ADB) and International Fund for Agricultural Development (IFAD). The overall Development Objective of NSLCP-RFSP is: "smallholder livestock farmer household income increased." The Programme would have two main outcomes: (i) smallholder livestock producers adopt productive technology; and (ii) farmers access sustainable and scalable credit services. The Programme would be primarily implemented in 12 districts and approximately 200 villages in Houaphan, Luang Namtha, Luang Prabang and Xieng Khouang provinces in northern Lao PDR. While focusing on the piloting and implementation of its rural finance operations in these areas, a major target of NSLCP-RFSP is to contribute to the overall development of sustainable rural financing systems and methods that are scalable and can be applied nationwide in Lao PDR.
- 2 The closed Northern Region Sustainable Livelihoods through Livestock Development Project (LDP) revealed a high unmet demand for livestock-related rural financial services in the Programme districts. The BoL-registered banks and MFIs are not yet capable or willing to meet this demand in the Programme districts. The Village Livelihood Fund (VLF) credit scheme of LDP reached large numbers of smallholder households, but was a subsidised, unsustainable solution for credit delivery resulting in poor operational management, high arrears and less than optimal use of the Programme funds. At the same time it is expected that some LAK 19 billion (USD 2.4 million) from the LDP credit scheme revolving fund would be available for lending to the targeted NSLCP households after the new Programme becomes effective.
- 3 Under the planned NSLCP-RFSP, loans for capital investments and working capital are required for the planned livestock investments in around 5,400 households, if the development targets of the Programme are to be met. In this situation the selected strategy is to (i) re-design the LDF credit scheme for NSLCP-RFSP implementation based on appropriate rural credit practices, market-based interest rates and full operational sustainability, following the guidelines provided in the NSLCP-RFSP Final Programme Design Report; (ii) capacitate the NSLCP credit management team and particularly the district-level Lao Women's Union (LWU) scheme implementers to competently manage the NSLCP-RFSP livestock credit scheme; and (iii) after the first round of financing the SLPNG members in PY1-3, transfer the recovered principal of both the VLF credit funds and the new NSLCP credit scheme funds to the Agricultural Refinancing Facility (ARF) (Output 5 of the Programme), to be used as long-term refinancing capital for registered banks and MFIs in Lao PDR.

The Assignment

- 4 The Final NSLCP-RFSP Design Mission recommends a moratorium of new loan approvals and disbursements from the residual VLF until the new, appropriate credit scheme rules and guidelines are agreed. To complete this re-design task as soon as possible, IFAD/ADB will finance an assignment by an international Rural Finance Expert to design, jointly with the NSLCP management, the new livestock credit scheme guidelines by the last quarter of 2016. The key tasks of this assignment would be:

- review the documents on the NSLCP development approach and particularly the various reports that have been produced on the LDP credit scheme performance;
- review in detail the principles that have been agreed on in the Final NSLCP-RFSP Design Report concerning the manner in which the credit scheme has to be applied
- working closely with the NSLCP management, finalise the re-design of the NSLCP-RFSP livestock credit scheme based on the agreements reached with the government and IFAD/ADB during the NSLCP-RFSP design process; and
- based on the re-design, draft the Implementation Guidelines (Operations Manual) for the NSLCP-RFSP livestock credit scheme.

Duration and Timing of Assignment

- 5 The contract of Rural Finance Expert would be for 30 days. The re-design work is expected to be completed latest by the end of 2016.

Qualification and Experience

- 6 The Rural Finance Expert would hold a university degree in Business Management, Finance, Economics or a related field. S/he would have a minimum of 15 years of work experience at a relevant level of banking and rural finance operations. Global exposure to modern ways of organising rural finance operations is a critically important requirement for the successful candidate, including experience from similar types of planning tasks for microfinance operators elsewhere in the region. Excellent oral and written communication skills in English are a requirement for this position.

B. Long-Term Technical Assistance to Support the Capacity Building and Implementation of NSLCP Credit Scheme

Terms of Reference

Background

1. The Northern Smallholder Livestock Commercialization Project-Financial Services Programme (NSLCP-RFSP) is a development programme supported with finances from the Asian Development Bank (ADB) and International Fund for Agricultural Development (IFAD). The overall Development Objective of NSLCP-RFSP is: "smallholder livestock farmer household income increased." The Programme would have two main outcomes: (i) smallholder livestock producers adopt productive technology; and (ii) farmers access sustainable and scalable credit services. The Programme would be primarily implemented in 12 districts and approximately 200 villages in Houaphan, Luang Namtha, Luang Prabang and Xieng Khouang provinces in northern Lao PDR. While focusing the piloting and implementation of its rural finance operations in these areas, a major target of NSLCP-RFSP is to contribute to the overall development of sustainable rural financing systems through methods that are scalable and can be applied nationwide in Lao PDR.

2. The closed Northern Region Sustainable Livelihoods through Livestock Development Project (LDP) revealed a high unmet demand for livestock-related rural financial services in the Programme districts. The BoL-registered banks and MFIs are not yet capable or willing to meet this demand in the Programme districts. The Village Livelihood Fund credit scheme of LDP reached large numbers of smallholder households, but was a subsidised, unsustainable solution for credit delivery resulting in poor operational management, high arrears and less than optimal use of the project funds. At the same it is expected that some LAK 19 billion (USD 2.4 million) from the LDP livestock credit scheme revolving fund would be available for lending to the targeted NSLCP-RSFP households after the new Programme becomes effective.

3. Under the NSLCP-RFSP, if the development targets of the Programme are to be met, loans for capital investments and working capital are required for the planned livestock investments of around 5,400 household members of trained Smallholder Livestock Production and Marketing Groups (SLPMGs). In this situation the selected strategy is to (i) re-design the LDP credit scheme based on appropriate rural credit practices, market-based interest rates and full operational sustainability, following the guidelines provided in the NSLCP-RFSP Final Design Report, and provide additional capital from the IFAD highly concessional loan to meet the Programme financing requirements; (ii) capacitate the NSLCP credit management team and particularly the district-level scheme implementers from the Lao Women Union (LWU) to be able to competently manage the NSLCP-RFSP credit scheme; and (iii) after the first round of financing the SLPMG members in PY1-3, transfer the recovered principal of both the VLF credit funds and the new NSLCP credit scheme funds to the ARF (Output 5 of the Programme) to be used as long-term refinancing capital for registered banks and MFIs in Lao PDR.

The Assignment

4. Under a separate TA assignment, IFAD/ADB will recruit an international expert to redesign the NSLCP credit scheme based on principles agreed on during the Final Programme Design Mission and to prepare, before end-2016, new Implementation Guidelines (Operations Manual) for the scheme.

5. Following the aforementioned re-design work, the NSLCP-RFSP, with funds from the IFAD Highly Concessional loan, would recruit an international rural finance TA, partnered by national experts in microfinance training and community mobilisation, to capacitate and empower the scheme implementers, particularly the LWU staff, to successfully establish and manage the NSLCP-RFSP livestock credit operation. Within these overall tasks, the recruited international and national experts would perform the following specific duties:

- familiarise themselves with the operations of NSLCP in general and to the principles according to which is new NSLCP-RFSP credit scheme would be implemented in particular;
- based on the re-design of the NSLCP credit scheme and its new Implementation Guidelines (Operations Manual), make a comprehensive capacity building plan for the NSLCP-RFSP implementers, particularly the district LWU staff, including their initial training in the new credit approaches, followed by continuous training and on-the-job support to be provided during PY1-PY3;

- identify and specify the necessary computing hardware and financial management software required by the district LWU teams to effectively record and monitor transactions under the livestock credit programme;
- capacitate and empower the scheme implementers in the provinces and districts, particularly the LWU staff, to be capable of implementing the NSLCP-RFSP livestock credit operations based on the principles of the new Implementation Guidelines;
- proactively support in PY 1-3 the credit scheme implementation in the Programme districts and advise in taking corrective actions when required; and
- during the implementation process, support on a continuous basis the NSLCP management and credit scheme implementers to further develop the credit scheme procedures and services to better meet the requirements of the scheme clients and to ensure the full recovery of disbursed LDP and NSLCP funds.

Duration and Timing of Assignment

6. The support from the recruited international and national TA to the NSLCP-RFSP livestock credit scheme would cover the first three years of the Programme implementation. The support activity is planned based on the recruitment of a team consisting of a Senior International Microfinance Expert/Team Leader and two local microfinance training experts. The international expert would be employed for 120 days in PY1, 80 days in PY2 and 30 days in PY3. Both of the local microfinance training experts would be recruited for 150 days in PY1, 100 days in PY2 and 30 days in PY3. The budget also includes allocations for relevant DSAs, travel costs and other expenses related to this capacity building assignment. Following their recruitment, the TA are invited, within the NSLCP-RFSP budget limits, to propose alternative working day allocations, if these are considered more effective in reaching the objectives of the assignment.

Qualification and Experience

7. The Senior Rural Finance Expert would hold a university degree in Business Management, Finance, Economics or a related field. S/he would have a minimum of 15 years of work experience at a relevant level of banking and rural finance operations. Global exposure to modern ways of organising rural finance operations is a critically important requirement for the successful candidate, including experience from similar types of planning tasks for microfinance operators elsewhere in the region. Excellent oral and written communication skills in English are essential.

8. The two locally recruited microfinance training experts would hold a university degree in Business Management, Finance, Economics or a related field. They would have a minimum of 10 years of work experience in rural finance and/or microfinance operations. Experience in planning and implementing microfinance training operations is a basic requirement for these positions, as well communication skills both in English and in local language to be able to conduct the field training tasks in northern Lao PDR.

C. Short-Term International Technical Assistance to Support the Design and Start-up of National Agricultural Refinancing Facility

Terms of Reference

Background

1. The Northern Smallholder Livestock Commercialization Project-Financial Services Programme (NSLCP-RFSP) is a development programme supported with finances from the Asian Development Bank (ADB) and International Fund for Agricultural Development (IFAD). The overall Development Objective of NSLCP-RFSP is: "smallholder livestock farmer household income increased." The Programme would have two main outcomes: (i) smallholder livestock producers adopt productive technology; and (ii) farmers access sustainable and scalable credit services. The Programme would be primarily implemented in 12 districts and approximately 200 villages in Houaphan, Luang Namtha, Luang Prabang and Xieng Khouang provinces in Northern Lao PDR.

2. While the initial focus of the Programme would be on supporting the NSLCP-RFSP livestock credit programme and the emergence of networked village funds in Programme districts and provinces, in the medium-term, the Programme would also support the GoL in developing innovative and nationwide methods for rural and agricultural finance arrangements in Lao PDR. In particular, the Outcome 5 of NSLCP-RFSP would assist the GoL to establish a national Agricultural Refinancing Facility (ARF), to stimulate the participation of registered banks and MFIs in rural and agricultural finance operations in Lao PDR.

3. The ARF would be a national support mechanism that would receive funding from existing grant funds held by the MAF, from the NSLCP-RFSP and from new credit lines from International Financial Institutions (IFI), and would apply those funds to refinance a portion of the lending by prudentially-approved commercial banks and MFIs to targeted agriculture sectors, in line with the national agriculture development strategy. Sanctioned commercial banks and MFIs could have varying percentages of their approved lending refinanced through the ARF at rates that significantly increase their lending spread and therefore reduce their credit risk. As evidenced in a number of countries that have adopted this structure, refinancing creates a strong incentive for financial institutions to lend to the agricultural sector. This, in turn, expands financial sector knowledge of agricultural and rural investment opportunities and builds their confidence in lending to the sector. Typically, ARF facilities can be withdrawn after about 10-15 years, by which time rural credit demand is being largely met by the commercial credit sector without this support mechanism.

4. The ARF will be designed in the first Programme year (PY 1) of NSLCP-RFSP and established in PY 2. It would be initially capitalised by a mix of IFAD highly concessional loan and MAF grant funds and be piloted to support commercial bank and MFI lending to larger-scale animal production and related agribusiness investments in the NSLCP area. If assessed by the ARF Management Board as successful over its first 18 months of operation, the ARF would be further capitalised by (i) the IFAD/NSLCP livestock credit funds; (ii) IFIs planning support to the Lao PDR agricultural credit market; and (iii) MAF's existing development funds, and would be progressively scaled up to support agricultural lending nationally.

The Assignment

5. NSLCP-RFSP would recruit, with finances from the IFAD highly concessional loan, an international Senior Rural Banking Expert to support the design and start-up activities of the ARF. The key task of the assignment would be to ensure that the design of the ARF would be conducted in an appropriate manner following best international practices and that the Facility operations would start successfully, following the time schedules described in the NSLCP-RFSP design. Within these overall tasks, the recruited Senior Expert would need to perform the following specific duties, working in close co-operation with counterparts from NSLCP, the MoF, the BoL, the MAF and the financial sector institutions:

- analyse, based on the available documentation and interviews with relevant institutions, the demand for the different types of refinancing services in the NSLCP area and more generally in Lao PDR and, on the basis of this analysis, prepare a promotion strategy for the ARF;
- discuss with the relevant authorities about the most suitable legal and organisational framework for the proposed ARF;

- based on agreements with the GoL on the most appropriate manner to implement the ARF in Lao PDR, draft the By-Laws and the Investment Guidelines for the Facility, including: (i) the relevant terms and conditions for Participating Financial Institution (PFI) inclusion in the scheme; (ii) conditions on Programme eligibility for refinancing; and (iii) detailed rules for refinancing rates, duration of contracts and maximum limits for individual contracts;
- design the detailed instructions for due diligence processes for applicant banks and MFIs and the draft the Subsidiary Loan Agreements for the selected PFIs;
- draft the TOR for different ARF committees and for the professional staff to be recruited into the ARF Management Unit;
- train the recruited professional staff of the ARF in the conduct of their duties;
- support the BoL in the practical procedures to establish the ARF Management Unit;
- based on experience from similar operations in other countries, support the development of appropriate MIS and accounting systems for the ARF;
- support the implementation of the pilot operations of the ARF with the banks and MFIs in the NSLCP area; and
- during PY 1 to PY 3 of NSLCP-RFSP, assess on a continuous basis the progress of the ARF activities and support the Facility to take corrective actions in its operations, as required based on the achieved results.

Duration and Timing of Assignment

6. The contract of the Senior Rural Banking Expert would cover a four months' period during the first to third Programme years of NSLCP-RFSP. Two months' allocation of working time is budgeted for PY 1 and 1.5 months for PY 2, and 0.5 month for PY 3.

Qualification and Experience

The Senior Rural Finance Expert would hold a university degree in Business Management, Finance, Economics or a related field, and preferably a post-graduate degree in similar areas. S/he would have a minimum of 20 years of work experience at senior level of banking and rural finance operations, with at least 10 years of senior level experience in commercial banks and registered MFIs in developing country environments. Wide global exposure to modern ways of organising rural finance operations is an important requirement for the successful candidate. Particularly important is the experience in designing and supporting the operation of rural and agricultural refinancing facilities in countries in economic transition, comparable to the situation in Lao PDR. The successful applicant would have excellent oral and written communication skills in English.

Annex 4

Table 1. Disbursement of amortised NSLCP livestock credit loans

Half year ending		30-Jun-17	31-Dec-17	30-Jun-18	31-Dec-18
Funding					
LDP residual funds	USD	591,406	591,406	295,703	295,703
IFAD funds	USD	475,000	475,000	475,000	475,000
Total	USD	1,066,406	1,066,406	770,703	770,703
	LAK million	8,638	8,638	6,243	6,243
Equivalent new loans	number	864	864	624	624
New loans plus recirculation					
Incremental ^{1a}	number	864	1,137	1,244	1,607
Cumulative	number	864	2,001	3,245	4,853

Table 2. Estimated ARF breakeven period

Assumptions

Annual operating cost	USD	100,000
Quarterly operating cost	USD	25,000
Cost of finance to ARF	%	2%
Cost of funds to MFIs and banks	%	7%
Net rate	%	5%

Cash flow (USD)

Period	Average Outstanding Balance	Income	Operating costs	Net position
Quarter 1	-	-	25,000	(25,000)
Quarter 2	-	-	25,000	(25,000)
Quarter 3	300,000	3,750	25,000	(21,250)
Quarter 4	600,000	7,500	25,000	(17,500)
Quarter 5	1,000,000	12,500	25,000	(12,500)
Quarter 6	1,400,000	17,500	25,000	(7,500)
Quarter 7	1,800,000	22,500	25,000	(2,500)
Quarter 8	2,000,000	25,000	25,000	-

Appendix 5: Institutional aspects and implementation arrangements

Background

- 1. Ministry of Agriculture and Forestry.** The main role of the MAF is to manage the development of agriculture and forestry for food and nutrition security and for the production of commodities for processing industries⁷⁰, in line with the Strategy for Agriculture Development (2011-2020). It is responsible for providing strategic orientations to the sector, developing the policy, legal and regulatory framework, promoting investment in the sector, and ensuring overall coordination of their implementation. Implementation responsibilities are carried out at provincial and district levels, in line with the government's decentralisation policies.
- 2. Bank of Laos.** Practically all financial regulation falls under the Bank of Lao (BoL) (the central bank) and is divided between the Banking Supervision Department (BSD) and the Financial Institutions Supervision Department (FISD). FISD is responsible for microfinance institutions (MFIs), Savings and Credit Unions (SCUs), mobile money, and leasing companies. Apart from its role as overall regulator of the financial sector, the BoL has, specifically been assigned the mandate and responsibility to supervise and promote the microfinance system nationwide. The BoL is also responsible for the regulation of the capital markets, while the regulatory responsibility for insurance falls under the Ministry of Finance (MoF). Importantly, regulatory directives may also be issued by the other arms of the government, such as the Prime Minister's Office
- 3. Provinces.** Provincial authorities are responsible for providing strategic guidance to and ensuring monitoring and coordination of the district level. The Provincial Department of Planning and Investment is in charge of coordinating public investment programmes, in line with the decisions of the Provincial Socio-Economic Development Coordination Committee (PSEDCC) chaired by the Vice-Governor and composed of the heads of all line agencies and district governors. Provincial Agriculture and Forestry Offices (PAFOs) are responsible for providing overall guidance and support to DAFOs, disseminating technical information, promoting innovation and organising input delivery.
- 4. Districts.** Districts are the planning and budgeting units for district-level SEDPs and have a District Socio-Economic Development Coordination Committee (or equivalent institutional arrangement) that mirrors PSEDCC at provincial level. The Committee provides policy guidance to line departments and coordinates the implementation of all development programmes in the district. *District Agriculture and Forestry Offices* (DAFOs) are responsible for implementing agriculture policies and strategies and for delivering extension services to farmers. They also coordinate Technical Service Centres (TSCs), which exist in some of the *kum ban*. The main potential constraints faced by DAFOs in relation to NSLCP-RFSP implementation include: (i) a lack of skills to deliver support services other than with regard to production, to carry out participatory planning, to develop participatory approaches and to promote farmers' groups; (ii) lack of market knowledge and of skills related to market assessment; (iii) limited female staff and limited knowledge on gender equality; (iv) high staff turnover; (v) limited outreach, particularly to the remote areas, due to scarce financial resources and lack of transport equipment; and (vi) in the uplands, limited command of ethnic language and culture. The *District Industry and Commerce Departments* (DIC) are responsible for promoting market linkages in the agriculture sector. They work jointly with DAFOs, for example on concessions and contract farming, but they similarly have limited skills to deal with farmers' organisations and have no field staff. *District Offices for Natural Resource and Environment* (DoNRE) are in charge of most of the land management activities, including land use planning. Similar to DAFOs, they have limited staff, transport equipment and budget, and are also little conversant with participatory approaches. *District Departments of Public Works and Transport* (DPWT) are in charge of construction works. Experience with IFAD-financed RLIP in Attapeu province has shown that the

⁷⁰ Prime Minister Decree 262 on the organisation and function of MAF, 28 June 2012.

approaches used to promote village-based infrastructure maintenance is weak. The *Lao Women Union* (LWU) is a mass organisation with representations at both provincial and district level, which is responsible for promoting gender equality and the advancement of women in the implementation of national socio-economic development. The Lao People's Revolutionary Youth Union is a mass organisation with similar organisation as the LWU whose objectives are to mobilize youth solidarity in implementing the goals of the Lao People's Revolutionary Party, and to contribute to peace, independence, democracy, unity and prosperity.

5. **Farmers' organisations.** While there are traditional forms of groups for self-help or sharing work, there are very few farmers' organisations providing services to members, except where they have *been* created and supported by development projects. DAFOs promote the creation of farmer groups either to facilitate extension, or to support contract farming arrangements with agri-business companies. This form of organisation, however, merely offers a way to facilitate the channelling of inputs and technical assistance to farmers, and groups do usually not share common objectives nor provide any services to members. The LFN, established in early 2014 with the support of the Sub-Sector Working Group on Farmers and Agribusiness (SWGAB), has about 2,600 members spread across 16 member organizations covering bamboo, coffee, organic and non-organic vegetables, NTFP, rice, pig, sugar cane and tobacco production. Presently covering 10 provinces, it intends to become a nation-wide organization in the near future. It aims to strengthen group knowledge and raise group productivity and marketing skills and has recently run members training courses sponsored by IFAD and SDC. The LFN does not yet have a sustainable membership fee structure and a number of its member associations are at an embryonic stage of development. Yet there are a few successful examples across the country of producers' groups that are offering a much more consistent set of services, have developed more elaborate structuring and are bringing significant benefits to their members, such as for example coffee producers' groups in Champasak and in Pakse.

6. **Sector Working Groups.** The overall objective of the SWG-ARD is to support the implementation of the Government of the Lao PDR (GoL) National Social Economic Development Plan (NSED) and the achievement of the Millennium Development Goals (MDGs) relevant to the ARD sector. These are: *Goal 1 – Eradicate Extreme Poverty and Hunger; Goal 7 – Ensure Environmental Sustainability*. Specific Objectives include: (i) providing a forum for dialogue and coordination between the GoL and DPs; (ii) promoting the development of the concerned sectors including policy dialogue and joint priority setting; (iii) facilitating the implementation of sector-related actions and targets; (iv) ensuring coherence and linkage between the Round Table Meetings; and (v) Guidance and Monitoring of the Sub-Sector Working Groups (SSWGs) under SWG-ARD. The SWG ARD is established under the guidance of the GoL to promote the aid effectiveness principles enshrined in the Vientiane Declaration and its related Country Action Plan. These principles include: national ownership, results based management, mutual accountability, use of national systems, and harmonization and simplification of procedures using an inclusive partnership process. The role of the **Sub-sector Working Group on the Uplands** (SSWGUp) is to promote aid effectiveness and the achievement of the MDGs with particular relevance to the uplands. These include: (i) that market practices in the uplands are fair, efficient and sustainable; (ii) that the most vulnerable populations in the uplands are included in development activities; (iii) that development activities in the northern uplands are in line with the NGPES; and (iv) that policy dialogue, harmonisation and alignment between Government and its development partners is established to design and implement a program-based approach for uplands development.

Overall Organisation and Responsibilities

7. **Rationale.** NSLCP-RFSP organisational framework follows the government decentralisation policy, whereby the province is the strategic unit, the district the planning and budgetary unit, and the village the implementing unit. It also builds on lessons learnt from IFAD country programme and reflected in the 2011-2015 COSOP, i.e. the need to support decentralised decision-making systems, giving more accountability to the district and *kum ban* level, and the related requirement to provide continued capacity building to technical agencies and extension agents. Furthermore, it provides

complementary staff resources deployed at the local level. Finally, a number of service providers, have been pre-identified to assist in implementing specific set of activities using innovative approaches: (i) GIZ will partner with the Programme and support a focused effort to establish around 200 new, well-functioning VFs in the NSLCP districts; and (iii) PROCASUR, a NGO receiving IFAD financing (regional grants) is developing new instruments to promote knowledge management through farmer-to-farmer approaches. The Programme is also seeking partnerships with SDC and AusAID, which will be further discussed at final design.

8. The **Ministry of Agriculture and Forestry**, through its DLF, is the NSLCP-RFSP lead agency that has overall responsibility for Programme implementation, which it delegates to the Project Director and, through that office, to the DAEC for technical matters and to district administrations (with provincial oversight) for Programme implementation.

9. The **Project Director** (PD) will head a National Project Management Office (NPMO), supported technically by DAEC and NAFRI Support Team. The NPMO/DAEC staffing mix is detailed in Table 1 below, while the full project structure is shown in Appendix 5, Annex 6. The ToRs for the NPMO are detailed in Appendix 5, Annex 2.

Table 1: NPMO and DAEC Technical Support Team Staffing

NPMO	Technical Support Institutions		
	DLF	DAEC	NAFRI
• National Project Coordinator			
• National Deputy Project Coordinator	• Coordinator	• Coordinator	• Coordinator
• Chief accountant	• Administrator	• Administrator	• Administrator
• Procurement officer	• Driver	• Driver	• Driver
Luang Prabang Field Office			
• Administrative Liaison officer			
• Assistant accountant			
• Secretary			
• Technical liaison officer			
• Safeguard Officer (Resettlement and Environment)			
• Safeguard Officer (Comm. Dev and Gender)			
• M&E officer			
• Rural Financial Services Officer			
• Knowledge Management Officer			
• Driver (2)			

Financed by the NSLCP-RFSP

10. The NPMO has established an independent **Technical Advisory Group** (TAG) to support Project implementation. The TAG will: (i) review the project's annual workplan; (ii) review all technical matters; (iii) provide guidance and resolve issues; (iv) undertake field monitoring; (v) review policy documents; and (vi) supervise project implementation and monitoring and evaluation

11. **District Agriculture and Forestry Offices**, supported by the District NSLCP Implementation Units, will serve as a focal point for the planning and monitoring of the NSLCP-RFSP at district level. Under the NSLCP-RFSP, each DAFO will coordinate and consolidate planning and budgets for the preparation of AWPBs, manage NSLCP-RFSP accounts for expenditure carried out at district level, and prepare semester and annual progress reports and financial statements. The DAEC/TSC system

will provide technical advice to Project farmers. AWPBs, semester and annual progress reports will be validated by the District Socio-Economic Development Coordination Committee, or its local equivalent. Line agencies at district level will participate in the implementation of NSLCP-RFSP activities under their respective responsibilities through district teams that will gather staff from DAFO, DPI, DoIC, LWU, DoES, DPWT and others. District teams will reflect gender balance, and a special effort will be made to select people who have command of ethnic languages.

12. **DAFOs** will send validated district AWPBs and technical and financial reports to their respective PAFOs. The PAFOs will review and consolidate them, prior to submitting them to the PPSC. The PPSC will review and approve them, and send them to the NPMO.

13. **IFAD.** The NSLCP-RFSP is financed through an IFAD Highly concessional loan. IFAD will support the NPMO, through procurement oversight, technical advice and interactive implementation supervision to support NSLCP-RFSP implementation.

14. **GIZ** will provide international staff to plan and manage the VF-based rural financial services activities in the four provinces and a junior international advisor to each of the three new provinces (Houaphan, Luang Prabang and Xieng Khouang), in which the implementation takes place.

15. **Bank of Laos.** The BoL, through the AFP, will provide supervise the management of LWU MFIs and NSOs in project districts and provinces respectively. The BoL may also support the management of the ARF.

16. A **National Project Steering Committee** will be responsible for overall project direction and, for the convergence of NSLCP/NSLCP-RFSP activities with other agencies and development partners. It will provide guidance and oversight to participating provinces and districts, be responsible for approving NSLCP-RFSP AWPBs and progress reports for submission to MoF, ADB and IFAD, and will be the final arbitrator on issues relating to project design and management. The NPSC will include representatives from (MAF, BoL, MPI, MoES and MOF), Governors or Vice-governors of the four target provinces, and the Chamber of Commerce. The NPSC, which will be co-chaired by the Vice-minister, MAF will rotate its half yearly meetings between Vientiane and participating provinces. NPSC ToRs are detailed in Appendix 5, Annex 1

17. A **Provincial Project Steering Committees** will approve annual AWPBs and annual progress and financial reports prepared by participating kum bans and districts and approved by the respective DSEDCCs. It will include representatives from line ministries participating in NSLCP-RFSP implementation (MAF, MIC, MoH, MPWT, MoES and MOF), the Governor and Vice-governor, LWU, civil society and NGOs, provincial private agri-business and a balanced representation of farmers. The PPSC will be headed by the Provincial Governor.

18. **The Project Coordinator**, who should have solid experience in IFAD project management and extensive experience of agriculture development in Lao PDR, will lead the NPMO. The PC shall receive proper training from IFAD on new policies and management skills. The PC, as the Head of NPMO, will work full-time for the Project, and will have no additional responsibilities within any other agency. The major responsibilities of the PC will be to ensure that the involved Ministries, Departments, Provinces, Districts and communities carry out the Project activities in line with the Project approach, operating schedules and procedures. The PC will report directly to the Director MAF-DLF and be the secretariat of the NPSC. ToRs for key Project staff are detailed in Appendix 5, Annex 3.

19. **The Deputy Project Coordinator (NSLCP-RFSP)**, who should have solid experience in IFAD project management and extensive experience of agriculture development and rural financial services in Lao PDR, will be based in the regional coordination office in Luang Prabang, where s/he will be responsible for supporting and coordinating the implementation of the NSLCP-RFSP at provincial, district and village level. The DPC will report to PC. ToRs for key Project staff are detailed in Appendix 5, Annex 3.

20. **Project Contracting.** As a general principle, NSLCP-RFSP will promote, where practical and fiscally possible, the use of output-based contracts as a basic tool for service delivery. An 'output based' contract is an agreement between the Project and a service provider which will be managed by the NPMO, DAFO, or village community, creating a relationship for the delivery of services or products. The driving force behind the contract is that it focuses deliverables in measurable terms, rather than checking that the activities have been undertaken, or assessing the service delivery methodologies. This signals a move from payments for inputs or activities (e.g. completing a training workshop) to payments for a tangible measurement of the results from such activity. For example, a tangible measure of a training program will be farmers applying some of the knowledge and skills attained on their farms to provide some measurable benefits.

21. **Smallholder Livestock Production and Marketing Groups.** There are about 300 former LDP farmer groups in the 12 NSLCP districts, primarily involving either husband and wife or single female-headed households, that have shown good progress in moving along the commercialization trajectory. The Project will build the capacity of these groups to form SLPMGs with a view to progressing them from the basic production improvements achieved during the LDP to being able to: (i) access input supplies and services needed for commercial production; (ii) produce higher quality livestock products that can be sold at provincial markets, and (iii) market as a producer group. SLPMGs will, on average, have about 18 households, represented by both husbands and wives, or heads of women-headed households. The Project district teams and corresponding DAFO/DAEC/TCP staff will work with SLPMG members to build their livestock production and farm financial management capacity with a view to providing participating farmers with appropriate skills to profitably lift livestock production and profitability.

22. **Lao Women's Union.** LWU teams in the 12 Programme districts will be trained by a team of international and national rural financial experts to effectively implement the Programme livestock credit programme during PY1 to PY3. The LWU will also support the LFN in implementing the LF2F extension programme, particularly through the identification of female LFs.

23. **Lao Farmers Network.** The Project will work with the LFN to identify LFs who will be trained to provide LF2F advisory services to SLPMG member households under an output-based contractual agreement. Depending on location and capacity, the LFN may play a role in LF2F management.

Annex 1 - Terms of Reference: National Project Steering Committee⁷¹

Programme Steering Committee

1. **Mandate:** The NPSC is established by the MAF to ensure overall execution of the Project and effective coordination/cooperation among and coherent inclusion of the government agencies, development partners, mass organizations and the private sector. The PPD will serve as the decision maker for strategic management of the Project, such as appointment of the Project Director and Field Programme Coordinator (Deputy PD) and approval of the PIM and Annual Work Plan and Budget (AWPB) and other decisions related to the Project coordination, orientation and mobilization of resources.
2. **Composition:** The NPSC members shall include

Chairperson of NPSC:	Deputy Minister, Ministry of Agriculture and Forestry
Member/Secretary:	Project Director,
Members:	
	Vice-minister, Ministry of Planning and Investment
	Vice-minister, Ministry of Finance
	Vice-minister, Ministry of Commerce and Industry
	Vice-governors of participating provinces
	Director, MAF-MPD
	Director, MAF DLF
	Director, MAF DAEC
	Vice-chairwoman, Lao Women's Union

3. **Functions:** The main responsibilities of the NPSC, to be duly notified through a joint Decision by MAF will be:
 - a) Ensuring complementarity between the Project and other externally/internally financed projects/programmes and efficient use of Project funded financial and manpower resources;
 - b) Providing a supporting policy framework and guidelines for efficient Project implementation;
 - c) Soliciting/proposing new regulations and policies for GoL approval, where needed, to ensure implementation of the Project, especially in regard to the institutionalization of commercial livestock production and marketing;
 - d) Reviewing and approving annual work plans/budgets for the Project;
 - e) Recruitment/appointment of the Project Director and the Field Programme Coordinator (Deputy Project Coordinator) in accordance to their specified terms of reference;
 - f) Interfacing between PDO and GoL on matters of policy formulation, revision and implementation, with a view to ensure effective implementation of the Project;

⁷¹ The NSLCP NPSC is already established. These Tors are included to specify IFADs requirements for NPSC organization and will be incremental to the existing ToRs where activities included in this Annex are not included in the current ToRs for the NPSC

- g) Ensuring effective cooperation and coordination among the provincial and district agencies, and instilling a system of accountability for performance and proper use of resources at all levels;
 - h) Ensuring effective coordination and information sharing between NSLCP/NSLCP-RFSP and other Government's and donor-funded projects and programmes through annual review workshops and drawing upon and sharing of policy forums and communication facilities;
 - i) Conducting a results-based semester review meeting of the Project progress of the past semester and approving the work plan and budget for the coming semester, ensuring timely corrective action on management and implementation issues towards the Project objectives;
 - j) Ensuring timely provision of counterpart funds, in line with Project needs as defined by annual work plans.
4. **NPSC meetings:** The NPSC will meet on a semester basis to coordinate Project implementation, guide planning, review progress based on the information from the M&E, make recommendations for any modifications of AWPB as needed, and ensure cooperation among agencies and levels for the coming semester. The NPSC meetings will rotate between Vientiane and the participating provinces.

Annex 2 - Terms of Reference: National Project Management Office⁷²

1. The National Project Management Office (NPMO) is established to assist the NPSC in ensuring timely and effective coordination of Project implementing agencies and stakeholders. The mandate of the NPMO will be to ensure: (i) coherence of the Project approaches and strategies, and integration among Project outcomes and activities in order to produce the Project impacts, outcomes and outputs; (ii) coordination and synergy of the relevant government departments and other co-implementing agencies, development partners and technical service providers, and the province and district level agencies, and grassroots communities; (iii) mobilization of resources from the private sector, mass organizations, professional associations, research institutes, technical centres and non-government organizations; (iv) accountable management of IFAD and Government's resources, including preparation of a PIM, AWPB, procurement plan, selection of technical assistance and audit service providers, establishment and operation of a M&E system, and other functions of the operational and financial management of the Project and (v) knowledge sharing and policy development interventions.
2. The main tasks of the NPMO include:
 - a) **Annual planning and coordination.** Together with the main implementing agencies and Service Providers, the NPMO will draw up an AWPB that reflects both the previous year's achievements and performance and anticipated Project progress. It will consolidate the AWPB for submission to the NPSC and obtain prior IFAD comments. The NPMO will ensure coordination between other government agencies and externally financed programmes in the Project area
 - b) **Targeting and Gender.** In the planning and implementation of Project activities, the NPMO will ensure that the provincial and district agencies will maintain the focus on poor and near poor households, women-headed households and ethnic peoples and ensure that women have ample opportunities to participate in Project activities. NPMO will ensure gender is mainstreamed in all Project activities as detailed in the PIM, to be developed by the NPMO in the Project activation period
 - c) **Knowledge of Indigenous People (IP)** (including language and culture) The NPMO will ensure that project staff have sufficient knowledge of IP language and culture and ensure the provision of additional training where that understanding is insufficient.
 - d) **Capacity building.** A series of provincial and district-level training workshops will be held on, *inter alia*: community driven development; farmer groups and cooperative formation and management; livestock market integration; animal and forage husbandry, land use zoning, planning and allocation; using information and data; inclusive planning; and gender and ethnicity issues in planning. Bi-annual project implementation workshops will be held in each district with participation of kum ban and village representatives
 - e) **Monitoring and Evaluation.** The monitoring and evaluation unit in the NPMO will establish an appropriate M&E and MIS system (incorporated into the MAF ProMIS) and ensure implementation of IFAD RIMS procedures. Staff in the implementing agencies and members of beneficiary communities will be trained in the requirements for M&E.
 - f) **Financial management.** The GoL shall open and thereafter maintain an account denominated in US dollars for the purpose of financing the Programme, the "**Designated Account**". The DA will be operated by the Ministry of Finance (MoF). The NPMO will open and maintain in a commercial bank acceptable to IFAD an account denominated in LAK for Project operations, the "Project Account" (PA). The PA will be funded and replenished as necessary from the resources held in the DA, upon request of the PD and in accordance with expenditures incurred under approved annual work programme and budget (AWPB). The PD shall be fully authorized to operate the relevant Project Account.

⁷² The NSLCP NPMO is already established. These Tors are included to specify IFADs requirements for NPMO organization and will be incremental to the existing ToRs where activities included in this Annex are not included in the current ToRs for the NPMO

- g) **Procurement.** The NPMO will carry out all procurement according to the Government and IFAD Procurement Guidelines. It may delegate procurement to implementing agencies and, for community infrastructure, to communes that follow the local regulations on decentralization of investment ownership
 - h) **Recruitment.** In collaboration with the relevant implementing agencies, the NPMO will develop appropriate Terms of References for staff positions to be assigned to the NPMO or the respective agencies and to be funded by the Project. It will organize a fair and transparent selection process and ensure IFAD concurrence for the candidates for the key positions
3. Apart from day-to-day Project management and coordination, the NPMO will organize: (i) baseline and corresponding impact surveys; (ii) regular monitoring activities and Project progress reporting; (iii) bi-annual workshops to involve all Project stakeholders in learning from the constant flow of management information, annual reporting exercise and recommending improvements; (iv) Project midterm review after 2.5 years of implementation; and (v) Project completion evaluation.

Annex 3 - Terms of Reference for Key Staff at NPMO⁷³

A. Project Coordinator

Job Title:	Project Coordinator
Duration:	Aligned to Project duration
Recruitment:	National
Contract:	Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables
Reports to:	Project Steering Committee (on matters related to the Financing Agreement with IFAD) Director MAF-DPD (on planning matters)

Purpose

1. The PC will coordinate Project management and ensure that implementation is realised according to the conditions of the loan agreement and based on the Project appraisal report. S/he needs to ensure effective and timely implementation of the Project, with special attention to providing overall inter-agency coordination and facilitation at various levels. Under the direction and supervision of the NPSC, the PC coordinates the NPMO, provincial and district project staff and service providers to ensure that the strategic outcomes of the Project are achieved. Particularly, the PC leads the NPMO to ensure the M&E requirements described are developed and implemented in a timely manner that represents the views of key stakeholders. S/he is also responsible for making sure there are sufficient and appropriate personnel with the right level of resources and other support needed to implement the Project.
2. In particular, the PC will serve as leader of the Project management team in order to achieve the following responsibilities: (i) Project Implementation Coordination; (ii) Financial/Asset Management; (iii) Contract Management; (iv) Personnel Management (v) Government Liaison/External Relations; and (vi) Knowledge Management and Policy Development.

Organisational relationships

3. The PC will be responsible for Project progress and will be accountable to the NPSC, the government ministries and relevant staff of IFAD. S/he will also be accountable to the Project stakeholders for Project progress, problems and improvements.

Responsibilities and Duties

Early implementation tasks:

- (a) Lead formulation of Project Implementation Manual (PIM) and other guidelines;
- (b) Assist the MAF in establishment of the National Project Steering Committee;
- (c) Appoint key NPMO staff and supervise their activities;
- (d) Guide the establishment of administrative, accounting and Project-outcome M&E systems;
- (e) Coordinate training workshops on the Project strategy and approaches, AWPB and procurement for the first year with key stakeholders to ensure an updated and shared understanding of the Project strategy and information needs;

⁷³ The NSLCP NPMO is already established and fully staffed, except for the post of the KM officer, which will be recruited under the IFAD loan. The ToRs for the Project Director, Finance and Administrative Manager, Procurement and Contracts Manager, M&E Specialist Rural Financial Services Officer and Gender Specialist are included as a guideline to IFADs Project Management and staffing requirements and will be incremental to the existing ToRs where activities included in the following ToRs are not included in the current NSLCP ToRs for the NPMO management team. The KM Specialist position includes an recommended score sheet for competitively evaluating job applicants.

- (f) Ensure that an effective and participatory M&E system is established and effective.

Ongoing operational management tasks

- (g) Prepare the AWPB and revise the M&E plan and system by seeking stakeholder inputs in order to produce these plans with the full commitment of all the organizations involved in the Project. Present the AWPB and M&E plan to the relevant approval bodies in a timely manner for review and approval;
- (h) For each service provider contract, ensure that detailed specifications are prepared in a timely, objective, fair and transparent manner, including the M&E responsibilities and administration of terms and awards;
- (i) Ensure the holistic implementation of the Project, ensuring the Project outcomes and levels are seamlessly joined in the pursuit of market-led poverty alleviation amongst poor, ethnic and women-headed households;
- (j) Ensure that the MAF and provincial and district agencies maintain the focus on poor, ethnic and women-headed households, that women have ample opportunities to participate in Project activities, that gender is mainstreamed in all Project activities and that staff have adequate knowledge of IP language and culture;
- (k) Make sure the business of the Project is conducted in an efficient manner by supervising and monitoring Project implementation. Ensure that timely decisions on corrective actions are made and implemented;
- (l) Direct and supervise the day-to-day operations of the Project, guided by the Project document and the AWPB, providing any necessary amendments to ensure smooth performance;
- (m) Mobilize relevant technical assistance in a timely manner, with clearly demarcated responsibilities that are based on the participatory and equity principles of the Project;
- (n) Assure that all contractual obligations are adhered to and make the necessary contacts and efforts to ensure implementation meets Project targets;
- (o) Regularly appraise staff and provide feedback and support to enable them to do their jobs.

Ongoing financial management tasks

- (p) Ensure that Project expenses are kept, consistent with Government and IFAD administrative and financial procedures and practices;
- (q) Ensure that Project suppliers and locally paid staff are paid promptly and adequately through liaison with Ministry of Finance and the IFAD Country Office finance staff;
- (r) Ensure that Project expenditure is being coded correctly and consistently (that is allocated to correct category and budget line) and that Project funds are used solely for the purposes for which they were granted and in accordance with relevant IFAD guidelines;
- (s) Establish an asset register for all assets purchased by or provided to the Project in line with standard IFAD policies;
- (t) Check the monthly Project financial report for accuracy and appropriateness. Regularly meet with the Finance and Administration Manager concerning financial reporting issues, errors, trends, payment delays and related matters;
- (u) Monitor expenditure on a monthly basis against the approved AWPB in order to prepare and send timely fund withdrawal applications to IFAD. Review expenditure projections to ensure that expenditure stays within budget. Significant actual or anticipated expenditure variances against the budget should be included in the monthly report to line management together with any recommendations for changes to the budget.

Communication

- (v) Develop close working relationships with all Project participants and stakeholders – including the primary stakeholders, line departments, private sector and NGOs – all parties required to establish a shared vision of the Project to achieve objectives;
- (w) Establish and maintain good working relations with the relevant government ministries, as well as other higher-level stakeholder groups;
- (x) Ensure easy public access to M&E reports and data and make sure they are widely distributed;
- (y) Submit required analytical reports on progress – including indications of planned actions and financial statements – on time and to the relevant bodies, with assistance from M&E staff;
- (z) Encourage staff to report frankly on fieldwork, highlighting problems and possible solutions plus lessons learned. Reward innovation in critical reflection and learning;
- (aa) Ensure the planning of and participate in key reflection moments – in particular, the annual Project reviews;
- (bb) Sign implementation agreements with the implementing partners, defining the modalities for implementation and M&E. Ensure that participatory M&E and learning initiatives are specified in terms consistent with the direction of the Project;
- (cc) Control the budget and safeguard against Project funds and assets misuse;
- (dd) Make all efforts to engage key stakeholders in important external evaluations to ensure an understanding of locally perceived impacts and problems;
- (ee) See that all ad hoc evaluation studies needed to gain timely and relevant insights into emerging areas of concern are undertaken. Make sure the resulting data is shared with all those involved in decision making and follow up on the implementation of any decisions;
- (ff) Support external missions in ways that foster a joint learning process that identifies how the Project could be improved further to achieve impact.
- (gg) Knowledge sharing and Policy interventions
- (hh) Consolidate a culture of lessons learning involving all Project staff and allocate specific responsibilities of knowledge management to Project staff, implementing agencies and Project stakeholders;
- (ii) Ensure that the Project captures and share lessons learned through the M&E system, supervision and evaluation missions and periodic visits to sites;
- (jj) Document, package and disseminate lessons frequently and not less than once every three months;
- (kk) Facilitate exchange of experiences by supporting and coordinating participation in knowledge sharing workshops, teleconferences, development of IFAD' Lao PDR website and any other existing knowledge sharing network of IFAD at the regional and country level;
- (ll) Identify and participate in additional networks, for example scientific or policy-based networks that may also yield lessons that can benefit Project implementation.

Minimum Qualifications

Core Competencies

- (a) **People Skills:** Ability to work independently and as a team player who demonstrates leadership and is able to support and train local and international staff. Proven ability and experience in working with ethnic minorities
- (b) **Communication Skills:** Well developed written and oral communication skills. Able to communicate clearly and sensitively with internal and external stakeholders as a

- representative of an IFAD Project. This includes effective negotiation and representation skills;
- (c) Integrity: Works with trustworthiness and integrity and has a clear commitment to poverty reduction of local communities;
 - (d) Resilience/Adaptability and flexibility: Ability to operate effectively under extreme circumstances including stress, high security risks and harsh living conditions. Works and lives with a flexible, adaptable and resilient manner;
 - (e) Awareness and sensitivity of self and others: Demonstrates awareness and sensitivity to gender and diversity. Has experience and the ability to live and work in diverse cultural contexts in a culturally appropriate manner;
 - (f) Work style: Is well organized even within a fluid working environment and has a capacity for initiative and decision making with competent analytical and problem solving skills;
 - (g) Readiness to work with people of all backgrounds without bias;

Technical Competencies

- (h) MSc/MA degree in agriculture, economics or business administration;
- (i) At least 10 years of professional experience in relevant fields
- (j) Sound experience in working for IFAD Projects;
- (k) Sound knowledge of upland agriculture production in Lao PDR;
- (l) Ability to develop and foster external organizational relationships and applied representation skills;
- (m) Knowledge of Government and IFAD policies and procedures on gender, environment, corruption and general Project finance and administration management;
- (n) Knowledge of IP culture
- (o) Have telecommunication skills and proficiency in information technology/ computer skills;
- (p) Written and spoken English language skills essential.

B. Deputy Project Coordinator – NSLCP-RFSP

Job Title:	Deputy Project Coordinator
Duration:	Aligned to Project duration
Recruitment:	National
Contract:	Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables
Reports to:	Project Coordinator

Purpose

4. The DPC will coordinate the field implementation of the IFAD financed NSLCP-RFSP. S/he needs to ensure effective and timely implementation of the Programme, with special attention to providing coordination and facilitation at various provincial, district and village levels. Under the direction and supervision of the PC, the DPC coordinates the provincial and district project staff and service providers to ensure that the strategic outcomes of the NSLCP-RFSP are achieved.
5. In particular, the PD will serve as leader of the Project coordination team in order to achieve the following responsibilities: (i) Project Implementation Coordination; (ii) Financial/Asset Management; (iii) Contract Management; (iv) Personnel Management (v) Government Liaison/External Relations; and (vi) Knowledge Management and Policy Development.

Organisational relationships

6. The DPC will be responsible for NSLCP-RFSP progress and will be accountable to the PC. S/he will also be accountable to the Programme stakeholders for Project progress, problems and improvements.

Responsibilities and Duties

Early implementation tasks:

- (a) Lead formulation of Programme Implementation Manual (PIM) and other guidelines;
- (b) Assist the PC to select key Programme staff and supervise their activities;
- (c) Coordinate training workshops on the Programme strategy and approaches, AWPB and procurement for the first year with key stakeholders to ensure an updated and shared understanding of the Programme strategy and information needs;
- (d) Ensure that an effective and participatory Programme M&E system is established and effective.

Ongoing operational management tasks

- (e) Prepare the AWPB and revise the M&E plan and system of the Programme by seeking stakeholder inputs in order to produce these plans with the full commitment of all the organizations involved in the Programme. Integrate the Programme AWPB into the NSLCP AWPB and assist the PC to present the AWPB and M&E plan to the relevant approval bodies in a timely manner for review and approval;
- (f) Ensure the holistic implementation of the Programme, ensuring the Programme outcomes and levels are seamlessly joined in the pursuit of market-led poverty alleviation amongst poor, ethnic and women-headed households;
- (g) Ensure that the MAF and provincial and district agencies maintain the focus on poor, ethnic and women-headed households, that women have ample opportunities to participate in Programme activities, that gender is mainstreamed in all Programme activities and that staff have adequate knowledge of IP language and culture;
- (h) Make sure the business of the Programme is conducted in an efficient manner by supervising and monitoring Programme implementation. Ensure that timely decisions on corrective actions are made and implemented;

- (i) Direct and supervise the day-to-day field operations of the Programme, guided by the Programme document and the AWPB, providing any necessary amendments to ensure smooth performance;
- (j) Assist the PC to mobilize relevant technical assistance in a timely manner, with clearly demarcated responsibilities that are based on the participatory and equity principles of the Project;
- (k) Assure that all contractual obligations are adhered to and make the necessary contacts and efforts to ensure implementation meets Programme targets;
- (l) On behalf of the PC, regularly appraise Programme staff and provide feedback and support to enable them to do their jobs.
- (m) Develop close working relationships with all Programme participants and stakeholders – including the primary stakeholders, line departments, private sector and MFIs – all parties required to establish a shared vision of the Programme to achieve objectives;
- (n) Prepare and submit required analytical reports on progress – including indications of planned actions and financial statements – on time and to the relevant bodies, with assistance from M&E staff;
- (o) Make all efforts to engage key stakeholders in important external evaluations to ensure an understanding of locally perceived impacts and problems;
- (p) See that all ad hoc evaluation studies needed to gain timely and relevant insights into emerging areas of concern are undertaken. Make sure the resulting data is shared with all those involved in decision making and follow up on the implementation of any decisions;
- (q) Support external missions in ways that foster a joint learning process that identifies how the Programme could be improved further to achieve impact.
- (r) Coordinate the work of the Programme Knowledge Management specialist and ensure a culture of lessons learning involving all Programme staff and allocate specific responsibilities of knowledge management to Programme staff, implementing agencies and Programme stakeholders;
- (s) Ensure that the Programme captures and share lessons learned through the M&E system, supervision and evaluation missions and periodic visits to sites;
- (t) Document, package and disseminate lessons frequently and not less than once every three months;
- (u) Facilitate exchange of experiences by supporting and coordinating participation in knowledge sharing workshops, teleconferences, development of IFAD' Lao PDR website and any other existing knowledge sharing network of IFAD at the regional and country level;
- (v) Identify and participate in additional networks, for example scientific or policy-based networks that may also yield lessons that can benefit Project implementation.

Minimum Qualifications

Core Competencies

- (q) **People Skills:** Ability to work independently and as a team player who demonstrates leadership and is able to support and train local and international staff. Proven ability and experience in working with ethnic minorities
- (r) **Communication Skills:** Well developed written and oral communication skills. Able to communicate clearly and sensitively with internal and external stakeholders as a representative of an IFAD Project. This includes effective negotiation and representation skills;
- (s) **Integrity:** Works with trustworthiness and integrity and has a clear commitment to poverty reduction of local communities;

- (t) Resilience/Adaptability and flexibility: Ability to operate effectively under extreme circumstances including stress, high security risks and harsh living conditions. Works and lives with a flexible, adaptable and resilient manner;
- (u) Awareness and sensitivity of self and others: Demonstrates awareness and sensitivity to gender and diversity. Has experience and the ability to live and work in diverse cultural contexts in a culturally appropriate manner;
- (v) Work style: Is well organized even within a fluid working environment and has a capacity for initiative and decision making with competent analytical and problem solving skills;
- (w) Readiness to work with people of all backgrounds without bias;

Technical Competencies

- (x) MSc/MA degree in agriculture, economics or business administration;
- (y) At least 10 years of professional experience in agriculture and rural development fields
- (z) Sound experience in working for IFAD Projects;
- (aa) Sound knowledge of rural financial services development in Lao PDR;
- (bb) Ability to develop and foster external organizational relationships and applied representation skills;
- (cc) Knowledge of Government and IFAD policies and procedures on gender, environment, corruption and general Project finance and administration management;
- (dd) Knowledge of IP culture
- (ee) Have telecommunication skills and proficiency in information technology/ computer skills;
- (ff) Written and spoken English language skills essential.

C. Finance and Administration Manager

Job Title:	Finance and Administration Manager
Duration:	Aligned to Project duration
Recruitment:	National
Contract:	Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables
Reports to:	Project Coordinator

Purpose

1. The Financial and Administration Manager reports directly to the Project Coordinator, and is responsible for financial management and administration of the Project accounts, personnel, equipment, supplies and external services... As head of finance, the Finance and Administration Manager will take charge of all matters in the Project accounting cycle. The Project accounting cycle to be overseen by the Finance and Administration Manager starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management and administration aspects.

Key Responsibilities and Duties

- (a) Finalize, within three months after start of duty, a draft manual on financial management and administration by the NPMO, partners and beneficiaries, which sets the minimum standards of compliance for the financial management and administration under NSLCP-RFSP financing;
- (b) Installation of appropriate accounting/reporting systems to ensure that the NPMO and especially the PD are regularly informed of on-going financial activities and transactions.
- (c) Establishing the financial and administrative policies, systems, formats and procedures, including those for service contracting, budgeting and accounts and audit.
- (d) Ensuring that administrative and financing directives and guidelines of the NPSC are reflected in all Project activity.
- (e) Assisting in facilitation and supervision of the tender, award and performance assessment procedures for service contracting.
- (f) Communicate to all implementing partner institutions, service providers and grantee recipients their financial and administrative responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- (g) Maintain all accounting and administrative records in a form appropriate for regular auditing (at least once a year).
- (h) Ensure that all project funds are used in accordance with the conditions of the loan agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided;
- (i) Ensure that counterpart funds have been provided and used in accordance with the conditions of the loan agreements, with due attention to economy and efficiency, and only for the purposes for which they were provided;

- (j) Ensure that all necessary supporting documents, records and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers;
- (k) Ensure that designated accounts are maintained in accordance with the provisions of the loan agreement and in accordance with the financier's rules and procedures;
- (l) Ensure that the financial statements are prepared in accordance with International Public Sector Accounting Standards as adopted in Lao PDR;
- (m) Liaise with external auditors to audit the Project accounts to meet the required submission dates by IFAD;
- (n) Oversee tax matters of the Project, ensuring that tax exemptions for the procurement of goods for the Project are secured at the appropriate time;
- (o) Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds, and other supplies for Project implementation are disbursed or released in a timely manner to enable Project interventions to be carried out on time;
- (p) Prepare and submit regular withdrawal applications to IFAD and follow up to ensure that the Project does not run short of liquidity;
- (q) Follow up on all project funds released to implementing partners for timely retirement and proper utilization;
- (r) Ensure that statements of expenditure (SOEs) are carefully compared for eligibility with relevant financial agreements and the disbursement handbook, and with budget control discipline;
- (s) Ensure that fixed assets are well accounted for and annual verification is undertaken of the condition of assets and their location;
- (t) Prepare informative management accounts in the form of monthly, quarterly, semi-annual and annual reports regarding aspects of Project financial monitoring bringing out variances as per approved AWPB and advising implementers as to the limits of expenditure;
- (u) Act as a counter-signatory to Project fund releases as required for Project financial transactions and also sign as witness to contracts as much as possible;
- (v) Carry out any other activities that are assigned by the Project Coordinator.

Minimum Qualifications

2. The candidate should have a Bachelor's degree in accounting, and must be a certified chartered accountant (ACCA/CIMA).

Skills and Experience

- (a) At least eight years of relevant work experience in financial management and administration, including at least four as a financial manager or accountant in government/donor projects or large institutions;
- (b) Experience in funding budgets and contractual complements similar to those proposed under NSLCP-RFSP is desirable.
- (c) Strong managerial skills and demonstrated capacity to manage people and interact with a wide range of private sector partners and government representatives;
- (d) Knowledge of work planning, budgeting and reporting;
- (e) Excellent quantitative and analytical skills;
- (f) Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups.

D. Procurement and Contract Manager

Job Title:	Procurement and Contract Manager
Duration:	Aligned to the Project duration
Recruitment:	National
Contract:	Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables
Reports to:	Project Coordinator

Purpose

1. The Procurement and Contracts Manager reports directly to the Project Coordinator, and is responsible for managing procurement processes and contract administration aspects. As head of the procurement, the incumbent will be tasked to ensure compliance with Laos's public procurement regulations and ensure due diligence to comply with IFAD Procurement Guidelines and handbook.

Key Responsibilities and Duties

- (a) Installation of appropriate procurement systems and procedures for effective planning and monitoring of procurements under the project;
- (b) Oversee preparation and consolidation of inputs to the Annual Procurement Plan;
- (c) Finalize, within three months after start of duty, a draft manual on procurement by partners (under component 1) and grant recipients (under component 2), which sets the minimum standards of compliance for the procurement of goods and services under NSLCP-RFSP financing;
- (d) Continuously train (on the job) implementers in the preparation of terms of reference, specifications and proactive follow-up of these inputs in the bidding processes;
- (e) Prepare bidding documents based on acceptable bidding standards;
- (f) Ensure all prior review requirements such as obtaining of the No Objections from IFAD are complied with in a timely manner;
- (g) Ensure that all the due tendering processes are adhered to: sufficient publications, strict adherence to deadlines, transparency in communications with bidders, publication of bid results, etc.;
- (h) Ensure acceptable record keeping in procurement with at least a complete procurement file for each procurement from start to contract finalisation. Maintain all procurement records in a form appropriate for regular auditing and spot checks by supervision missions;
- (i) Communicate to all implementing entities and service provider their responsibilities and requirements with respect to procurement in keeping with prevailing government practices which are acceptable to IFAD;
- (j) Oversee the contracting process, including ensuring that Evaluation Committees have people with appropriate expertise;
- (k) Monitor implementation of contracts: report status and problems to the Project Coordinator on a monthly basis; and intervene to address problem upon request by the PD;
- (l) Ensure that goods and services financed have been procured in accordance with the loan agreement and the Lao PDR procurement regulations
- (m) Work with the Financial and Administrative Manager to ensure that tax exemptions for the procurement of goods for the project are secured at the appropriate time;
- (n) Prepare quarterly reports of progress with implementation of the Procurement Plan, and regularly inform the Project Coordinator of problems and make proposals to overcome bottlenecks;
- (o) Update the procurement plan;

- (p) Carry out any other activities that are assigned by the Project Coordinator.

Minimum Qualifications

2. The candidate should have a Bachelor's degree in procurement and supplies or a full CIPS (Chartered Institute of Purchasing and Supply) diploma.

Skills and Experience

- (a) At least five years of relevant work experience, preferably including experience in procurement in government/donor projects or large institutions;
- (b) Appreciation of the evolution of the public sector procurement reforms in Lao PDR;
- (c) Ability to work well in teams and to interact with a wide range of private sector partners and government representatives;
- (d) Knowledge and experience of IFAD guidelines and procedures;
- (e) Knowledge of work planning and reporting;
- (f) Excellent quantitative and analytical skills;
- (g) Computer-literate and well-versed in the use of Excel and Word.

E. Planning and Monitoring and Evaluation Manager

Job Title:	Project Monitoring and Evaluation Manager
Duration:	Aligned to the Project duration
Recruitment:	National
Contract:	Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables
Reports to:	Project Coordinator

Purpose

1. The Monitoring and Evaluation (M&E) system at the Project level has four objectives: (i) to monitor and evaluate results and impacts; (ii) to provide a basis for decision making on necessary amendments and improvements; (iii) to promote accountability for resource use; and (iv) to document, provide feedback on, and disseminate lessons learned.
2. Project monitoring and evaluation is conducted in accordance with established IFAD procedures and is undertaken by the Project coordination team at all levels. The Logical Framework matrix provides performance and impact indicators for Project implementation along with their corresponding means of verification. These, along with the objectives, procedures and tools described in the M&E plan presented in the Project final design report will form the basis on which the Project's M&E system will be built at the starting phase of the Project.

General scope of the job

3. The M&E Manager is responsible for guiding the overall M&E strategy and implementation of related activities within the Project and Vis a Vis partners, plus providing timely and relevant information to the PD, NPMO and Project stakeholders. This requires close coordination and communication with Project implementation agencies and other stakeholder groups, and field staff as well as consultants of external M&E-related missions.
4. Critical tasks for the M&E Manager include setting up the M&E system and ensuring it is implemented efficiently and effectively. The M&E system will be based on the Project log-frame and the Project M&E plan and will build as much as possible upon existing M&E mechanisms and systems among the Project stakeholders. The M&E officer will report directly to the Project Coordinator

Main Responsibilities and Duties

- (a) Setting up the M&E system.
- (b) Develop the overall framework for Project M&E in accordance to the Project document M&E plan;
- (c) Conduct a readiness assessment regarding M&E on what are the incentives at the system level, who are the beneficiaries;
- (d) Guide and coordinate the review of the Project log-frame;
- (e) Provide technical advice for the revision of performance indicators;
- (f) Ensure realistic intermediate and end-of-Project targets are defined;
- (g) Conduct a baseline study (situation at Project start);

- (h) Identify sources of data, collection methods, who collects data, how often, cost of collection and who analyses it;
- (i) Ensure all critical risks are identified.
- (j) Identify the core information needs of the NPMO, the NPSC, MAF, IFAD and the MoF;
- (k) Identify the requirements for collecting baseline data, prepare terms-of-reference for and arrange the conduct of a baseline survey, as required;
- (l) Clarify M&E responsibilities of different Project personnel;
- (m) Contribute to the development of the Annual Work Plan and Budget (AWPB), ensuring alignment with Project strategy, agreement on annual targets and inclusion of M&E activities in the work plan;
- (n) Prepare detailed annual M&E budgets;
- (o) Prepare calendar of M&E activities;
- (p) Identify needed Project M&E technical assistance and guide its recruitment.

Implementation of the M&E system

- (a) Oversee and execute M&E activities included in the AWPB, with particular focus on results and impacts as well as in lesson learning;
- (b) Based on the AWPB design the framework for the physical and process monitoring of Project activities;
- (c) Promote a results-based approach to monitoring and evaluation, emphasizing results and impacts;
- (d) Coordinate the preparation of all Project reports. Guide staff and executing partners in preparing their progress reports in accordance with approved reporting formats and ensure their timely submission. This includes quarterly progress reports, annual Project report, inception report, and ad-hoc technical reports;
- (e) Prepare consolidated progress reports for Project management including identification of problems, causes of potential bottlenecks in Project implementation, and providing specific recommendations;
- (f) Check that monitoring data are discussed in the appropriate forum (such as the review meetings of NPMO, the semester meeting of the NPSC) and in a timely fashion in terms of implications for future action. If necessary, create such discussion forums to fill any gaps;
- (g) Undertake regular visits to the field to support implementation of M&E and to identify where consolidations might be needed;
- (h) Foster participatory planning and monitoring by training and involving primary stakeholder groups in the M&E of activities;
- (i) Prepare M&E reports for annual supervision missions, mid-term review and final evaluation in accordance to IFAD guidance;
- (j) Facilitate, act as resource person, and join if required any external supervision and evaluation missions;
- (k) Ensure that all project reports reflect a climate-adapted approach to agriculture production and household nutrition;
- (l) Monitor the follow up of evaluation recommendations;
- (m) Identify the need and draw up the TORs for specific Project studies. Recruit, guide and supervise consultants or organizations that are contracted to implement special surveys and studies required for evaluating Project outcomes and impacts;
- (n) Organize (and provide) refresher training in M&E for Project and implementing partner staff, local organizations and primary stakeholders with view of developing local M&E capacity;

Minimum Qualifications

5. The candidate should have a Bachelor's degree agricultural science, natural resource management or economics.

Skills and Experience

- (a) Strong capabilities in data collection, including instrument testing, field data collection, data entry, random quality control testing, data compilation and analysis;
- (b) Extensive experience in designing and delivering training and capacity building in PME systems operationalisation, including development of training curricula, operational guidelines, and performance management;
- (c) Proven ability and expertise in working with data management software and web-based applications for use in M&E management;
- (d) Experience in establishing and managing robust M&E performance reporting across a diverse range and volume of partners;
- (e) Ability to plan and conduct structured and supportive field monitoring, including formal partner performance assessments, stakeholder reviews, etc.;
- (f) Commitment to gender and targeting perspectives and knowledge of IP language and culture;
- (g) Proven capacity in the formulation and production of high quality written material, including among others research studies, impact assessment reports, stories from the field, publications for media;
- (h) Demonstrable capacity to work with private sector, civil society, media and government sectors on evaluation and monitoring programs at a national scale, and to develop appropriate communication strategies and be an effective communicator in working with a diverse range of stakeholders;
- (i) Strong people management skills, willing and able to foster cross-sector collaboration and partnerships to enhance program results. Proven ability and experience in working with ethnic minorities;
- (j) Strong communication skills, especially writing skills;

F Gender Specialist

Job Title:	Gender specialist
Duration:	Aligned to the Project duration
Recruitment:	National
Contract:	Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables
Reports to:	Project Coordinator on administrative matters and DAEC Coordinator on technical matters

Purpose

1. The effective inclusion of village women in NSLCP community and SLPNG-based participatory planning and programme implementation, in the effective and sustainable implementation of an improved livestock commercialization programme, and as entrepreneurs, is essential to Project success. This will require a significant shift in prevailing attitudes to women and development across a broad range of project stakeholders, from Ministry to village level. To that end, the Project will support a robust gender development learning and action programme, requiring skilled specialist support.

General scope of the job

2. The Gender specialist is responsible for ensuring the Project implements a process of women's empowerment including targeting poor women and woman headed households. This requires close coordination and communication with Project implementation agencies and other stakeholder groups, and field staff as well as consultants. The Gender specialist will report directly to the Project Coordinator

Main Responsibilities and Duties

- (a) Building on background analysis and strategies outlined in the Project design report, detail the characteristics of target groups and gender issues in target areas to select appropriate climate change-adapted gender development approaches to implement under the programme;
- (b) Based on the detailing of poverty and gender issues as mentioned above, identify challenges and propose solutions that may hinder the Project in meeting its gender and inclusion objectives and targets;
- (c) Set up and initiate gender and inclusion strategies, mainly in preparing gender action plans and conducting gender awareness training during the initial implementation phase
- (d) Together with the Project M&E officer, develop appropriate M&E indicators for climate change-adapted gender-sensitive results;
- (e) Develop learning materials and tools- or adapt existing ones- in order to be able to run gender development learning events;
- (f) Organize and deliver training of trainers' events in Project areas on gender development;

Minimum Qualifications

- (a) Ability to work in other languages used in the region will be an advantage
- (b) A degree in social sciences or gender development
- (c) At least 5 years of experience in working on poverty and gender issues and gender equality in development projects and programmes;
- (d) proven ability and experience in working with ethnic minorities
- (e) Sound experience in working for IFAD Projects;
- (f) Sound knowledge of food and nutrition security at smallholder level in Lao PDR;
- (g) Knowledge of IP language and culture;
- (h) Ability to develop and foster external organizational relationships and applied representation skills;
- (i) Written and spoken English language skills will be useful

G. Rural Finance Specialist

1. The Programme will employ a Rural Finance Specialist who will be directly responsible for managing Programme activities under Outcome 2 – Farmers access sustainable and scalable rural financial services. S/he could be seconded from the finance service institutions. In the likely absence of suitable candidates among the local bank and mass organization officers, however, the position will be filled by recruitment through open advertisements.

Qualification and Experience:

2. Rural Finance Specialist (RFS) will hold a university degree in Business Management, Economics, Social Sciences or other related field. S/he will have a minimum of 10 years of work experience in the financial sector issues, including preferably experience with community-based financial arrangements. The position will also entail demonstrated capacity to take on a leadership position with strong managerial skills, good analytical ability, good writing skills and capacity to manage people and interact with a wide range of private sector partners, public sector representatives and most significantly smallholder farmers in rural Lao PDR. Sensitivity to gender issues and previous experience of working with women's Programmes will be additional merits for the position, as well as oral and written communication skills in English.

Duration:

3. The RFS will be recruited for an initial period of three years, renewable for another two years.

Reporting:

4. The RFS will report to the Programme Coordinator of NSLCP.

Key Responsibilities:

- a) Carry the overall responsibility for achieving the objectives, outcomes and targets identified for the Rural Finance Services outcome of NSLCP-RFSP.
- b) Familiarise herself/himself in the NSLCP-RFSP approach and in the activities to be undertaken as part of the outcome and ensure that the outcome is implemented as envisaged.
- c) Prepare the Annual Work Plan & Budgets for the outcome and ensure that all plans are properly designed, implemented and monitored according to specified deadlines and within the allocated budget.
- d) Develop Programme management guidelines, procedures and operating practices for Programme execution, proactively manage changes in Programme scope, identify potential constraints and devise contingency plans.
- e) Prepare contracts and bidding documents in accordance with IFAD and Government requirements for the competitive procurement of services under the outcome activities.
- f) Ensure gender mainstreaming in the outcome activities and track on a continuous basis the inclusion of women in the operations of the Rural Finance Services outcome.
- g) Establish together with the M&E Officer a system of monitoring and data management for the Rural Finance Services outcome.
- h) Identify how best to use the Technical Assistance budgeted for this outcome and to develop the ToR and most appropriate time schedules for the use of this assistance.
- i) Provide support to Supervision and Implementation Support Missions and the MTR and ensure compliance with their recommendations for the Rural Finance Services outcome.
- j) Carry out any other task as requested by the Programme Manager.

H. Knowledge Management Manager

Job Title:	Knowledge Management Officer
Duration:	Aligned to the Project duration
Recruitment:	National
Contract:	Two-year contract, with six months' probation period, renewable based on agreed performance targets and deliverables
Reports to:	Project Coordinator

Purpose

1. The effective management and dissemination of knowledge and information generated by NSLCP-RFSP will be necessary both for building national nutrition-rich upland agriculture policy and regulation and for building and disseminating practical approaches to improved mother and child nutrition, community driven development, farmer group formation and aggregation and farmers' linkages to markets. To that end, the Project will finance a program for systematically capturing learning and placing it at the disposal of all relevant end-users within the project provinces and beyond.

General scope of the job

2. The Knowledge Management Officer is responsible for gathering and analysing project information and effectively communicating results to Project beneficiaries and the wider farming community in Lao PDR. This requires close coordination and communication with Project implementation agencies and other stakeholder groups, and field staff as well as consultants. The Knowledge Management officer will report directly to the Project Coordinator

Main Responsibilities and Duties

- (a) Design and implement a system to identify, analyse, document and disseminate lessons learned, particularly in relation to climate change adaptation;
- (b) Consolidate a culture of lessons learning involving all Project staff and allocate specific responsibilities;
- (c) Ensure that TORs for consultants recruited by the Project also incorporate mechanisms to capture and share lessons learned through their inputs to the Project, and to ensure that the results are reflected in the reporting system described above;
- (d) Document, package and disseminate lessons frequently and not less than once every three months;
- (e) Facilitate exchange of experiences by supporting and coordinating Project participation in workshops and development of IFAD Laos website and any other existing network of local government and IFAD programme and Projects;
- (f) Identify and participate in additional networks, for example scientific or policy-based networks that may also yield lessons that can benefit Project implementation.

Minimum Qualifications

- (a) A degree in agriculture, natural resource management or agricultural economics
- (b) At least 7 years of professional experience in relevant fields
- (c) Sound experience in working for IFAD Projects;
- (d) Sound knowledge of agriculture development and food and nutrition security at smallholder level in Lao PDR;
- (e) proven ability and experience in working with ethnic minorities;

- (f) Ability to develop and foster external organizational relationships and applied representation skills;
- (g) Knowledge of IP language and culture
- (h) Have telecommunication skills and proficiency in information technology/ computer skills;
- (i) Written and spoken English language skills essential

(j) **Proposed Selection Criteria and Maximum Scores**

No.	Criterion	Maximum score
1	Depth and relevance of educational background	10
2	Length, depth and relevance of professional and practical experience in KM	30
3	Depth and length of management experience	5
4	Understanding of the position, Project and his/her role in successful delivery	10
5	Depth of understanding of food and nutrition security issues	10
6	Depth of understanding of rural and agricultural development issues	5
7	Experience in designing communications packages	5
8	Strong writing, analytical and interpersonal skills	15
9	Experience in qualitative and quantitative research	15
10	Working experience in bi- or multilateral projects	15
	TOTAL	120

Appendix 6: Planning, M&E and learning and knowledge management

Community-based Planning

1. The NSLCP-RFSP will follow a participatory planning approach in the targeted areas to ensure that the Programme's interventions best reflect the needs of the target groups and the local context. The participatory planning approach will be led by the DAFO NSLCP coordination unit at the district level and coordinated by PAFO at the provincial level. The outcome of this participatory planning will be integrated into the provincial Annual Work Plan and Budget (AWPB) by PAFO. The NPMO will consolidate the AWPBs of all four provinces. The AWPB will cover detailed activities and will be used as a tool to promote a results-oriented and performance-based approach. The AWPB will refer to outputs, outcomes and impact as specified in the logframe and in the M&E system.

2. Building on participatory planning processes undertaken in other IFAD-supported projects/programmes, the planning process will be based on consultations with beneficiaries at the village level, using Participatory Rural Appraisal (PRA) and Participatory Land Use Planning (PLUP) approaches. Furthermore, a Participatory Monitoring and Evaluation (PME) system will also be established at the SLPMG/village level to track and rate progress against SLPMG/village plan targets, monitor their progress and identify implementation issues. These two approaches are aimed at achieving community empowerment and ownership and ensuring transparency during Programme implementation. The participatory planning and monitoring activities will be led by DAFO and coordinated by PAFO, with the support of local service providers.

Programme M&E structure

3. The NSLCP-RFSP Monitoring and Evaluation (M&E) system is designed to provide reliable information to facilitate a results-based management of the Programme. The M&E system will be aligned, to the extent possible, to on-going efforts of the MAF to create and implement ProMIS, a harmonized Official Development Assistance (ODA) M&E system. The main objectives of the Programme's M&E system are to:

- *steer Programme implementation*: provide Programme stakeholders with the information and analysis required to measure Programme outputs and outcomes; assess Programme effects on the livelihoods of participating households; assess the relevance of the Programme's implementation strategy and processes; identify lags; and support overall decision-making to improve Programme performance.
- *support economic decision making*: provide information to the implementing agency, participating beneficiaries and other stakeholders, with the information and analysis needed to assess the return brought by Programme investments, especially for developing profitable activities and to adapt their strategies accordingly, by monitoring both quantitative (yields and production, margins, credit management) and qualitative results (members'/clients' satisfaction).
- *support policy-making*: the M&E system, furthermore, will provide government with information to measure Programme contribution to the implementation of overall MAF national strategies, and provide data and analysis to government towards evidence-based policy making.

4. The M&E system will have three levels of monitoring: output, outcomes and impact and will provide information by poverty status, gender, and ethnicity. Where appropriate, outcome and impact indicators will be disaggregated by poverty quintile.

5. *Output monitoring* will measure the progress of activities and achievement of outputs against targets in the Annual Work Plan and Budget for each Programme component. The output measures will be directly associated with output targets and indicators as expressed in the Programme logical framework. Physical and financial progress reports will be the primary outputs of this exercise. Data will be collected by DAFOs from registers and accounts kept by kum ban and village officials, SLPMGs and from contracted service providers. The data will be collated first at the PAFO level and then at the NPMO level.

6. *Outcome monitoring* will measure the changes coming about as a result of Programme interventions. This will entail annually measuring and assessing whether the Programme is moving towards achieving the Programme's outcome targets. The Programme's outcome targets as reflected in the logical framework are:

- 75% of 8,300 beneficiary livestock farming HHs are adopting at least 5 recommended technologies (disaggregated by gender and ethnic groups)*;
- 70% of SLPMG members sell heavier live animals: pigs: 60 kg (baseline 2014: 45 kg); cattle: 275 kg (baseline 2014: 200 kg)*;
- 20,000 rural women and men in Programme area access financial services from Village Funds (disaggregated by gender)*;
- Approved banks, MFIs, NSOs and associated VFs have accessed at least USD 3.5 million of ARF refinancing*.

7. Although not a specific outcome indicator, the Programme will also monitor the number of beneficiaries who are lifted out of poverty, with a target of at least 5,000 households.

8. Annual outcome surveys will be undertaken to measure these changes, which include 2nd level indicators from IFAD's Results and Impact Management Systems (RIMS). The surveys will be led by PAFOs, cover separate random samples, and will monitor the changes in the phased cohorts of beneficiaries. Information on the effectiveness of training will be assessed via Knowledge, Attitude and Practice (KAP) surveys carried out each year by district M&E officers.

9. *Impact evaluation*: shall assess the contribution of NSLCP-RFSP in achieving the overall goal of the Programme, namely, increase in the average net income of 5,400 livestock farming households to at least LAK 8.0 million per annum in real terms. It will also assess the progress towards the Development Objective of the project, namely: contributing to the establishment of sustainable and scalable national rural financial services. The impact evaluations will consist of baseline, mid-term and end-of-Programme surveys. Commissioning of these surveys shall be coordinated by NAFRI, and contracted to an external agency. Information to be collected will include the third-level indicators as identified in the Programme logframe.

10. Apart from the aforementioned three levels of monitoring, the Programme shall also monitor processes. This shall involve monitoring the processes leading to outputs and outcomes. Specific areas where progress monitoring will be useful in NSLCP-FSP include the provision of technical services, the execution of participatory village land use planning, budgeting and the execution of activities. Information on these may be gathered via PME, as well as from village or service provider records.

11. Furthermore, special studies will be undertaken at mid-term review to assess (i) improvement in production and productivity (forage development and livestock productivity); (ii) use and benefits of village bank funds and Network Support Organizations (NSOs); and (iii) delivery systems and implementation methodology/approaches adopted by DAFO/DAEC. Other studies will be undertaken as deemed necessary by the NPCO.

12. The M&E data will be collected through the following mechanisms:

- *Management Information System-generated:* data will be collected using semester reporting forms. The forms consist of mainly output indicators. In addition, information on outcome, when appropriate, will also be collected in the forms. These reporting forms will be composed differently depending on levels of management.
- For village level, the forms will be designed in simple spreadsheet formats, to be compiled quarterly. Village-level forms will be sent to DAFO for data compiling at the district level. At DAFO, the NSLCP M&E officer will compile the reporting forms from kum-bans and villages to formulate the district reporting forms in spreadsheet format. Part of this data compilation will be carried out by using macros to generate results automatically. DAFO forms will then be sent to PAFO for data analysis at the provincial level. At the provincial level, the NSLCP M&E officer will compile the DAFO reports to formulate the M&E data at the provincial level. NPMO shall then compile the consolidated data into the MIS system, in alignment, to the extent possible, with the ProMIS system.
- *RIMS+ impacts surveys:* The RIMS+ impact surveys are conducted at baseline, mid-term and programme completion. The RIMS+ impact surveys will be conducted in line with IFAD's RIMS Impact Survey Guidelines (2014), which lays out a framework and practical guidance for conducting these surveys for all IFAD-supported programmes. Additional adjustments to the standardized RIMS impact survey questionnaires and processes will be made to reflect the characteristics of the programme area and activities. The RIMS surveys will be adapted to include data related to extra indicators from the programme logframe. They will also be structured to capture Programme flow-on benefits and non-Programme influences on Programme results.
- *Other data collection tools:* relying on the RIMS impact surveys as the key data collection mechanism to inform outcome and impact of the program may prove to be insufficient. As RIMS impact surveys are largely a quantitative data collection tools based on household questionnaires, it is likely that some important outcome or impacts of the programme might not be well captured. Some additional data collection tools are thus needed. These tools will be tailored to specific interventions. The NPMO will determine the need for such additional data collection for qualitative analysis of progress (such as effectiveness of processes and beneficiary satisfaction) and, with the aid of the NSLCP M&E TA, develop the necessary tools for data collection.

Management Information System (MIS)

13. *An MIS* shall be established in the first year of Programme implementation⁷⁴. The system will provide information on physical and financial progress, procurement plans and progress as well as on baseline conditions, outputs and outcomes and other pertinent information. These will be automated to generate regular periodic reports (monthly and quarterly) and annual progress reports. For IFAD corporate reporting, semi-annual and annual Progress Reports are required.

14. *Quarterly Progress Reports* will be generated from the Programme MIS at District level. Information in the report will contain component-wise physical and financial progress against annual targets. This report will form the basis for quarterly progress review at district levels.

15. *Semi-annual and Annual Progress Reports* will be prepared from information compiled by the NPMO on component-wise physical and financial progress, and loan category wise progress from the Programme MIS. It will contain summarised information from villages visited by M&E staff, findings from PME, KAPs, annual outcome surveys and any other surveys. They will show progress towards development objectives, and also problems that are not adequately addressed, degree of

⁷⁴ The NSLCP has not yet established an MIS. The envisaged shall be an uncomplicated, excel-based, macros-enabled MIS that will be used at DAFO, PAFO and NPMO level

responsiveness of the staff of different support agencies, usefulness of training (information from KAP surveys), performance of service providers, successes and failures, gender equality and knowledge management.

Alignment and harmonization with ProMIS

16. The MAF, in 2012 initiated an effort to harmonize data generated from the various projects in the Ministry. This led to the on-going efforts of developing and operationalizing the ProMIS. This initiative was initially supported by FAO and later through an IFAD-supported project. The overall objective of ProMIS is to enhance the efficiency and effectiveness of public investment programme management under MAF, with a focus on standardizing certain indicators for monitoring projects within agriculture and forestry sector and developing tools for recording data and generating various reports on Programme results at the central ministerial level.

17. The objective of the first phase of ProMIS was to develop a practical prototype for ODA M&E. At the present moment, however, the system is primarily focused on Programme implementation monitoring rather than on generating comprehensive MAF-level outcome reports. The outputs during the first phase included the establishment of the central M&E Unit (for ODA projects) within the MAF PMD and the development of the M&E system including the ProMIS internet-based data interface. The system was presented to some ODA project teams, but has not yet been operationalized or piloted. The system is aimed at reporting on the quarterly implementation progress and achievements of ODA projects against their own planned individual targets and indicators of activities, outputs and outcomes. Monitoring reports can be generated for individual projects as well as their aggregations in terms of geographical units (district, provincial and national) and technical/sector fields. ProMIS is being developed as an internet based system with five data sets (Programme design data, annual / quarterly implementation plans, quarterly progress data) together with summary data for quarterly monitoring reporting. A ProMIS user's manual has been completed (in Lao and English), but not yet published. Currently, the IFAD-funded SSSJ project is funding the enhancement of user-interface of the system. A rollout plan has been made and pilots are planned for 2017.

18. Several challenges can be identified with regard to the operationalization of this system. The system has to be adjusted to accommodate for the different Programme design formats of different donor financed programmes and meet the requirements for inputting the data on Government financed programmes. It will be a considerable task to enter the data retroactively for projects that are already at various stages of implementation. Another key challenge is the lack of basic equipment required for its testing, the procurement of which has been delayed, and, at the district level, there is absence of the requisite computers and tablets to operate the system. The system will therefore have to rely on the manual filling of information from paper forms. In order to establish a fully functional M&E system within MAF. Further development and refinement of the ProMIS system is urgently needed.

19. While NSLCP will develop its own M&E system to respond to the reporting requirements of IFAD, it will also make an effort to be aligned with the evolving ProMIS system. The Programme will, to the extent possible, harmonize its data collection processes and templates to that of ProMIS. The Programme shall make provision for further funding for operationalizing ProMIS, installation of ProMIS at the NSLCP office and train NSLCP staff in the use of ProMIS. The Programme shall also work closely with the central M&E Unit within the MAF PMD to identify suitable MAF level outcome indicators, that will be required to measure progress against the 8th NSEDP targets.

Implementation arrangement

20. *Staffing:* The NSLCP M&E Officer, who is the lead M&E person, is based at the NPMO; and is supported by M&E focal points at each PAFO and DAFO level NSLCP office. The NPMO M&E Officer will develop the overall framework for Programme M&E in accordance to the Programme document

M&E plan and coordinate national surveys and studies. The NPMO shall also include a NSLCP-FSP Knowledge Management Officer who would be responsible for gathering and analysing Programme information and effectively communicating results to Programme beneficiaries, management, the donor community and other relevant stakeholders. These staff would be responsible for managing and coordinating monitoring of activities and outputs, and for working with field NGOs and contracted Service Providers on participatory M&E, process monitoring and KM.

21. *Capacity building* of Programme staff will be undertaken through a structured orientation training programme, refresher training, and information sharing. Orientation training will be undertaken during induction of new staff, and the refresher training on an annual basis. In addition, the Programme will also facilitate the establishment of partnerships with technical experts (e.g. for KAP survey and PME technical assistance), and other development projects, to enhance exchange of information and mutual learning. NSLCP M&E staff are recommended to undertake the IFAD online M&E training.

22. *Technical assistance for:* a) KAP surveys and b) PME. The M&E Officer at NPMO and PAFO NSLCP M&E focal points will be responsible for procuring these services in consultation with the Project Coordinator. The aim of technical assistance is to bring expert and specialist knowledge into the Programme to improve the adoption of M&E practices and knowledge that will be imparted through training, and to improve the feedback loops to district and kum ban officials, as well as to enhance the quality of surveys.

Learning

23. The Programme's learning system comprises of provincial level quarterly meetings (based on MIS-generated reports) and national bi-annual and annual review meetings, capturing information on progress, lessons and finding solutions for implementation constraints.

24. *Bi-annual Review Meetings.* The semi-annual progress report will be discussed during the Bi-annual Review Meetings at the national level to be coordinated by the NPMO. Over and above reviewing physical and financial progress for the period against annual targets, the Programme will also review the performance of each province, performance of service providers, implementation constraints, document lessons, and recommend and agree on actions to improve implementation.

25. A consolidated *Annual Programme Review* will be carried out towards the end of each fiscal year, in addition to the bi-annual reviews at national level. It shall assess performance in the achievement of physical and financial progress against annual targets. Furthermore, review of progress towards development objectives as reflected in the Outcome Surveys will be done assessing success and failures and reasons thereof and lessons learned.

26. *Mid-Term Review (MTR).* The Government and IFAD shall jointly undertake a mid-term review by the end of the third year of the Programme lifecycle to review Programme achievements and implementation constraints. In particular, it will review the following: (i) achievement and improvements in the livestock production systems and increase in income of beneficiaries; (ii) the performance of NSLCP credit scheme; (iii) achievements and shortcomings in the establishment and functioning of Network Support Organizations (NSOs) (from PY3); (iv) feasibility of establishing an ARF (from PY3); (v) impact of other Programme activities; (vi) financial and procurement management; and (vii) effectiveness of the institutional arrangement of the Programme. A mutually agreed action plan will be prepared based on the MTR findings.

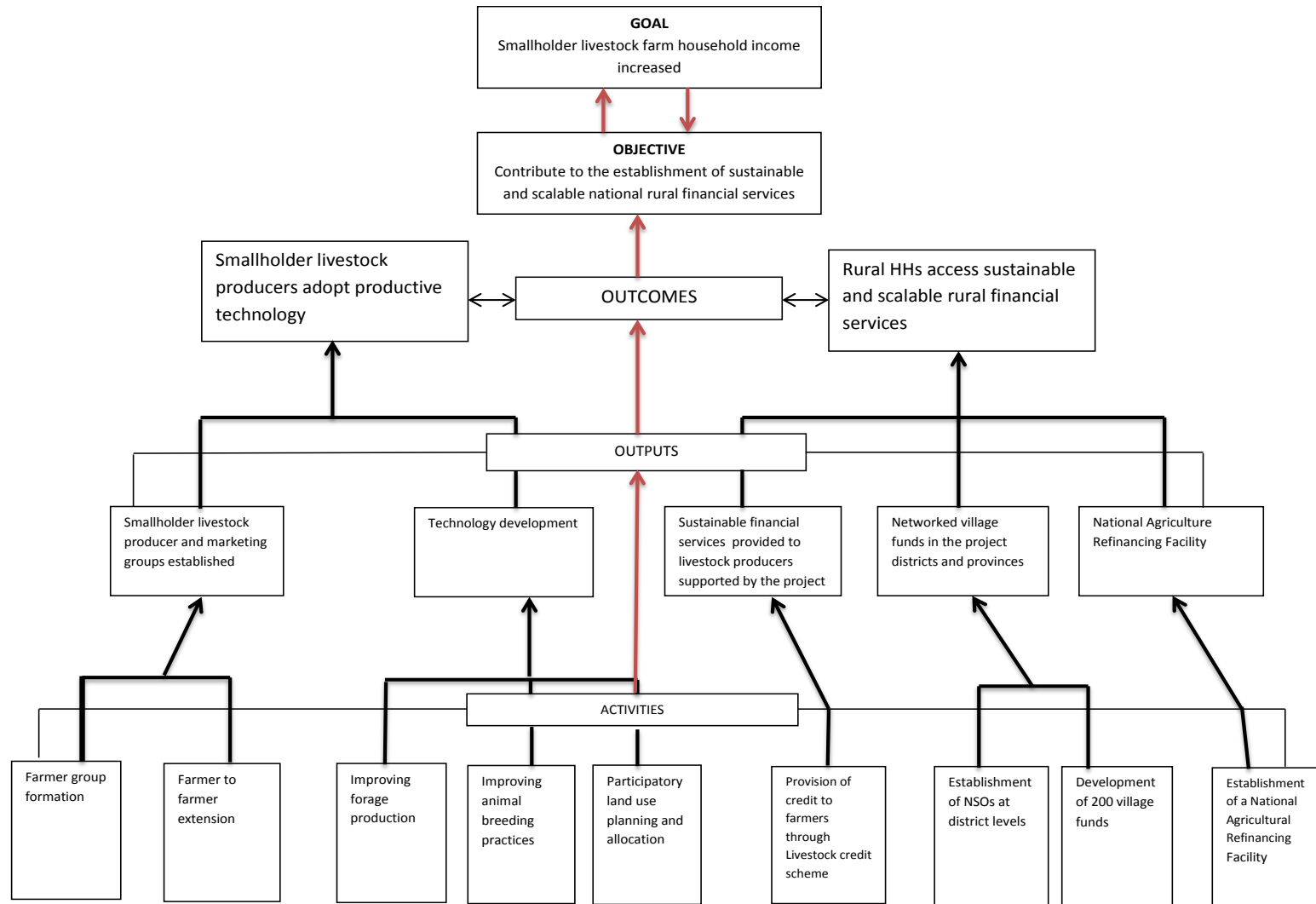
27. *Programme Completion Review.* As the Programme reaches completion, the NPMO will prepare a draft Programme Completion Report. IFAD and the Government will then carry out a Programme Completion Review based on the information in the Programme Completion Report.

Knowledge Management

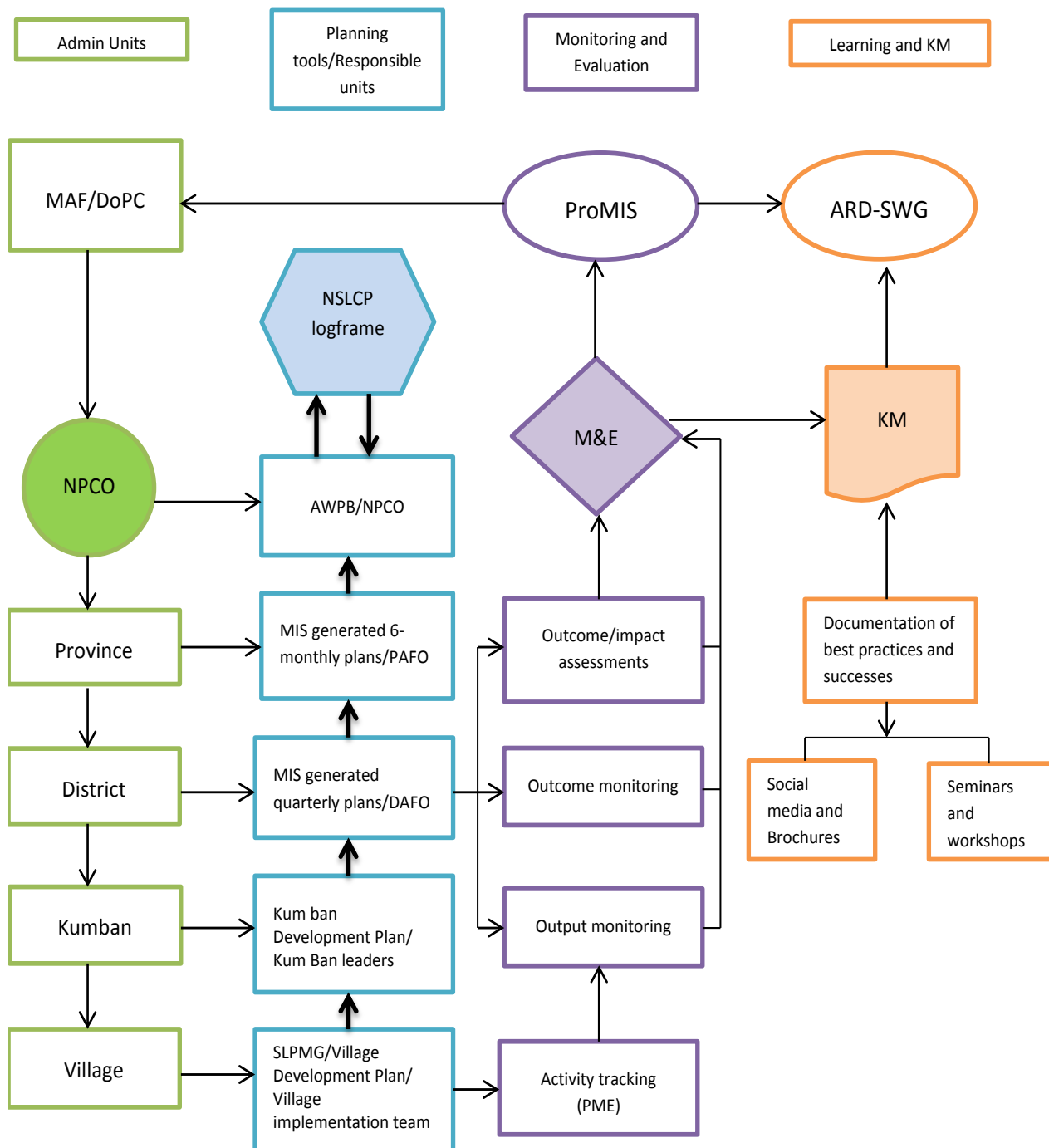
28. Knowledge management will be done systematically throughout the entire duration of the Programme. To enable effective knowledge management and sharing, results and lessons from the Programme will be documented systematically through special studies and knowledge products commissioned by the NCPO. The M&E system will be one of the most important sources of knowledge. In addition, innovations observed during the implementation process will also be documented. The MAF and NPMO M&E staff will also take the responsibility for disseminating knowledge documents through dedicated websites and occasional workshops and seminars. Furthermore, NPMO and PAFO M&E staff shall liaise with the media to ensure that Programme's activities will be frequently covered in local newspapers and radio broadcasting programmes. A knowledge management strategy will be developed in detail at the Programme start-up.

29. Simultaneously, MAF will communicate lessons learned from the NSLCP/NSLCP-FSP implementation, and from other IFAD-supported projects, within government and donor community by hosting workshops and publishing analytical reports. NAFRI, and particularly its Policy Research Centre Policy Think Tank, shall play a leading role in the systematic analysis of project experiences and formulate white papers that may contribute to policy making. This aspect will be key for scaling-up successful interventions. Country portfolio reviews and Programme workshops will invite a wide range of stakeholders to reflect on lessons learned through Programme's activities. The programme will also present the results of analytical studies at appropriate fora such as the Agricultural Sector Working Group.

Annex 1: Programme Results Chain



Annex 2: Proposed NSCLP-RFSP M&E Organizational Structure



Annex 3 Principal elements of programme planning, M&E, and learning system

Component/ Subcomponent/ Principal Activities	Planning	M&E	Learning
Outcome 1: Smallholder livestock producers adopt productive technology			
<i>Output 1: Smallholder livestock producer and marketing groups</i>			
<ul style="list-style-type: none"> • <i>SLPMG formation</i> 	Assessment of existing LPGs for possible graduation to SLPMG NPMO and DAEC plan phased group formation SLPMGs together with DAFO plan training needs assessment and programme of training	Monitor improvement in access of livestock producers to input supplies and services Monitor adoption of new techniques and improved quality of livestock produced Monitor increased income of SLPMG members	Case study on selected SLPMGs to assess the benefits of producing and marketing in groups, in terms of better access to inputs and credit, better prices for inputs, negotiating power with trader.
<ul style="list-style-type: none"> • <i>Farmer to farmer extension</i> 	Planning for training course for kum-ban level LFs Interested SLPMG to plan demonstrations and trainings with LFs	Monitor improved services provided to SLPMGs through mentorship programmes with kum-ban LFs	Sustainable systems for farmer to farmer learning
<i>Output 2: Technology development</i>			
<ul style="list-style-type: none"> • <i>Forage production</i> 	NAFRI and DAEC, with international TA support, plan for the procurement and study and controlled introduction of selected forages, particularly leguminous forages	Monitor the development of productive forage grasses	Sustainable and profitable forage seed and plant production technologies and processes
<ul style="list-style-type: none"> • <i>Animal breeding</i> 	Planning of sustainable system of establishing specialised breeding households	Monitor the improvement in quality of livestock produced	Sustainable business plans for breeding HHs
<ul style="list-style-type: none"> • <i>Land use planning and allocation</i> 	SLPMG villages, with DAFO and DoNRE support prepare participatory land use plans leading to land use allocation and titling	Monitor level of participation in the planning process, disaggregated by gender and poverty quintile	Systematic and participatory community resources planning and management process
Outcome 2: Rural households access sustainable and scalable rural finance services			
<i>Output 3: Financial services to NSLCP beneficiaries</i>			
<ul style="list-style-type: none"> • <i>Financial services to the SMLPG members</i> 	MAF/NPMO/PAFOs/DAFOs and District LWUs jointly plan recovery of outstanding LDP loans MAF/NPMO and District LWUs jointly plan new guidelines for the credit delivery and recovery mechanism for the new round of credit through NSLCP	Monitor enhanced capacity of LWU to implement Programme credit distribution and recovery Monitor trends of borrowing among livestock producers and credit utilization trends. Monitor number of poor households amongst 5,400 SLPMG members (target of at least 1,600 households) Track number of SLPMG members who were not LDP beneficiaries.	Financial services delivery system

Component/ Subcomponent/ Principal Activities	Planning	M&E	Learning
<i>Output 4: Networked village funds in NSLCP districts</i>			
<ul style="list-style-type: none"> Establishment of NSOs 	MAF/NCPO-BoL-GIZ plan for expansion of NSO services in NSLCP-RFSP Programme districts	Monitor the process and number of NSOs establishment	System of sustainable service delivery to registered deposit taking MFIs/village funds
<ul style="list-style-type: none"> Establishment of village funds 	MAF/NCPO-BoL-GIZ assess the viability of existing village funds and plan for their strengthening and/or setting up of new VFs	Monitor the process and number of village funds strengthened/ established Monitor number of VF members who are poor (target of 7,000) Monitor structure of VF loan portfolio and agriculture lending specifically	System of sustainable financial service delivery to rural HHs
<i>Output 5: National Agricultural Refinancing Facility</i>			
<ul style="list-style-type: none"> Setting up National Agricultural Refinancing Facility 	MAF/NCPO-BoL assess the feasibility of establishing an Agricultural Refinancing Facility Planning the process and bylaws of establishment of Agricultural Refinancing Facility	Monitor legal framework for establishment of a refinancing facility Monitor size of portfolio and lending trends Monitor number of poor household VF members using ARF leveraged funds. (target of 1,400) Monitor the exclusive use of ARF credit by banks for agriculture sector loans and MFIs/VFs for agriculture and rural development lending	An in-depth study on the establishment, functioning and phasing out of a refinancing facility

Appendix 7: Financial management and disbursement arrangements

1. **Financial management.** The NPMO will be responsible and accountable to Government and IFAD for the proper use of funds. The NPMO will ensure coordination, monitoring, supervising and reporting on NSLCP. They will provide a consolidated financial statements of the operations, resources and expenditures related to the Programme for each fiscal year prepared in accordance with standards and procedures acceptable to IFAD. Given the fact that limited capacity of staff at provincial and district level, strong initial training in financial management/procurement is one of the pre-implementation activities and will be undertaken with both external (technical assistance) and internal (MoF and MAF) resources. The initial training needs to provide specific training on IFAD/GOL procedures for the finance staff at the NPMO/RPCU/PAFO/DAFO levels. A draft Financial Management manual will be developed and be available before the start up workshop.
2. The Government shall ensure that counterpart funds are provided in a timely manner, particularly with regards to instances where parallel financing arrangements are used. Failure to do so may impede the efficiency and effectiveness of programme implementation.
3. **Designated Account (DA):** the GOL shall open a Designated Account (DA) denominated in US dollars in the Bank of Lao PDR for receiving and holding the loan proceeds. The DA will be operated by the MoF. Specifically, MoF will: (i) transmit WAs to IFAD; (ii) receive IFAD replenishments into the DA; and (iii) transfer the funds from the DA to the Programme Account (PA) based on the AWPB and replenishment requests. MoF shall ensure that funds requested by NPMO are transferred without delay. NPMO will ensure that replenishment requests from implementing agencies are in order and that timely WAs are sent to IFAD (through MoF), with appropriate supporting documentation.
4. **Programme Accounts:** The NPMO will open and maintain in a commercial bank acceptable to IFAD an account denominated in LAK for Project operations, the "Project Account" (PA). The PA will be funded and replenished as necessary from the resources held in the DA, upon request of the NPMO and in accordance with expenditures incurred under the approved annual work programme and budget (AWPB). The NPC and Project Field Coordinator shall be fully authorized to operate the relevant Project Account. Project accounts will also be opened by the relevant DAFO in Project districts to receive transfers for district management of Outcomes 2 and 3.
5. **Initial Deposit** into the DA (Authorized Allocation): Upon the entry into force of the IFAD loan and the Borrower's request, IFAD will make one withdrawal of USD 2 million in the aggregate, from the Loan Account on behalf of the Borrower and deposit such amount into the DA to carry out the Programme.
6. The request for such deposit needs to submit related documents to IFAD, which include the following:
 - Signature Specimen: Signature specimen of the authorized officials who are managing the DA must be confirmed by MoF with signature and submitted through MoF to IFAD in the form acceptable to IFAD prior to requesting for the deposit;
 - Letter of Evidence: A "Letter of Evidence" issued by the Bank holding the DA must be submitted to IFAD before requesting the deposit. The "Letter of Evidence" should confirm the opening of the DA, provide the account number and address, and state the agreement for the operation of the account. The "Letter of Evidence" should also indicate the "SWIFT" code for the bank in question;
 - Form 100: A "Form 100" needs to be filled in and properly signed and submitted to IFAD for the request of the initial deposit.

7. **Replenishment to the Designated Account:** IFAD will replenish the DA upon request. WAs for replenishment to the DA should be denominated in US Dollars and should be submitted on a frequent basis, provided that the expenditure made during the previous months is more than or equivalent to the Minimum Withdrawal Amounts: about 20% of the initial advance or 90 days of eligible expenditure incurred from the DA, whichever occurs first. All withdrawals shall be in line with Programme expenditures as detailed in the approved Annual Work Plan and Budget (AWPB)
8. The amounts withdrawn from the DA in local currency should be converted into USD using the prevailing exchange rate at the date of disbursing to the PA.
9. Each claim to IFAD for the replenishment of the DA needs to include the following documents and statements:
 - Form 100: A duly filled and signed "Form 100";
 - Form 101 or 102;
 - Designated Account Reconciliation Statement: A properly filled "Designated Account Reconciliation Statement";
 - Supporting documentation relevant to the eligible expenditures.
10. **The SOE Threshold** for all expenditures pertaining to all categories is recommend to a ceiling of USD 60 000.
11. **Eligible Expenditure:** The Financing shall be used exclusively to finance expenditures meeting each of the following eligibility requirements:
 - a) The expenditure shall meet the reasonable cost of goods, works and services required for the Programme and covered by the relevant AWPB and procured in conformity with the Fund's Procurement Guidelines;
 - b) The expenditure shall be incurred during the Programme Implementation Period, except that expenditures to meet the costs of winding up the Programme may be incurred after the Programme Completion Date and before the Financing Closing Date;
 - c) The expenditure shall be incurred by a Programme Party;
 - d) If the Agreement allocates the amount of the Financing to categories of Eligible Expenditures and specifies the percentages of such Eligible Expenditures to be financed by the Financing, the expenditure must relate to a category whose allocation has not been depleted, and shall be eligible only up to the percentage applicable to such category.
 - e) The expenditure shall be otherwise eligible in accordance with the terms of the Financing Agreement.
12. Any payments to a person or an entity, or for any goods, works or services, if making or receiving such payment **constitutes** a coercive, collusive, corrupt or fraudulent practice by any representative of the Borrower/Recipient or any Programme Party, shall not be eligible for financing by IFAD.
13. **Taxation:** The proceeds of the financing may not be used to pay taxes. All taxes are to be borne by the Government.
14. **IFAD Policy on Anti-Corruption and Fraud:** IFAD's policy to require that the staff of IFAD, and (including beneficiaries of IFAD loans) as well as all bidders, suppliers, contractors and consultants under IFAD-financed contracts observe the highest standard of ethics and integrity during the procurement and execution of such contracts. Mechanisms for the whistle-blowers to access IFAD systems are provided at the following link: <http://www.ifad.org/GoLernance/anticorruption/how.htm>

15. Disbursement Procedures: There are four standard procedures that can be used to request withdrawals from the Loan Account, which are as follows:

- a) Procedure I: Advance withdrawal (replenishment of the designated account, using imprest accounts or revolving funds with replenishment to a bank account(s) designated to receive financing resources in advance). This modality is used to advance and/or replenish funds to a bank account as designated by the borrower. IFAD may place a limit on the amount to be advanced and/or replenished. Relevant details on the modality – which is programme specific – are agreed between the borrower and IFAD, and detailed in the Letter to the Borrower/recipient (LTB).
- b) Procedure II: Reimbursement. This is applicable when eligible programme expenditures, reimbursable under the financing, have been pre-financed by the borrower. Such reimbursements are expected to be claimed no later than 90 calendar days from the date of payment by the borrower.
- c) Procedure III: Direct Payment. This modality is used for eligible programme expenditures to be paid directly by IFAD, generally for large contracts, to suppliers, contractors, consultants or third parties, as authorized by the borrower
- d) Procedure IV: Special Commitment. This modality is used for eligible programme expenditures related to items imported by programme implementing agencies under a letter of credit requiring the issuance of guarantees for reimbursement to negotiating banks by IFAD.
- e) Specific disbursement procedure should be referred to The Loan Disbursement Handbook for IFAD Directly Supervised Programmes – Version 1.01

16. Budgeting. As noted the NPMO will be responsible for compilation of the consolidated annual work plan and budget.

17. Accounting system: An accounting software which can produce a consolidated financial statement (by components, category as per IFAD requirement) and WAs to be developed at the NPMO. This is one of the pre-implementation activities, with support from the IFAD country office and learning from other ongoing IFAD-funded programmes. An Excel-based accounting system is to be used at provincial and district level. A simple budget monitoring system will also be designed to facilitate monitoring of AWPB financial execution at provincial and district level. All entities involved in financial management will need to be strengthened through training, which will include basic accounting, financial reporting, budget monitoring and control/verification procedures.

18. Counterpart Funds and Beneficiaries: Previous project experience shows that the counterpart funds were made available in a timely manner. Most of the counterpart contribution is from tax/duties and staff salary. Programme beneficiaries will also contribute in kind to the Programme cost.

19. External audit. In line with section 9.03 of the General Conditions for Agricultural Development Financing of IFAD, the consolidated financial statements of the Programme including the use of the counterpart funds relating to the Programme will be audited by Independent Auditors who shall be appointed based on a transparent and competitive selection process with an agreed ToR for the programme audit assignment which should be subject to a no-objection by IFAD. The auditors will audit the programme consolidated financial statements annually and audit reports shall be submitted to IFAD within six months of the end of the relevant financial reporting period. Following IFAD Guidelines on Programme Audits, the auditors shall provide separate opinions on the financial statements, SOEs and DA. In particular, the Auditors shall review withdrawals from the Programme Accounts at various levels on the basis of SOEs, and provide an independent opinion on whether such expenditures fully comply with expenditures eligible for IFAD disbursements. They shall also

review the efficiency of the flow of the funds and the delivery of counterpart financing. IFAD, as part of its supervision functions, will also inspect Programme Accounts to ensure their adherence to acceptable standards. The auditor shall provide three separate opinions:

- a) an opinion on the programme financial statements (PFSs);
- b) an opinion on the use of the Designated Account (DA), including the initial advance, replenishments, interest that may accrue on the outstanding balances, and the year-end balances. In this the audit shall examine: the eligibility of withdrawals from the DA during the period under review; the operation of the DA in accordance with the financing agreement and other instructions provided by IFAD; the adequacy of internal controls within the programme appropriate for this disbursement mechanism; and the use of correct exchange rates to convert local currency expenditures to the denominated currency of the DA; and
- c) an opinion on withdrawal applications, statements of expenditure (SOEs), and their summary, used as the basis for submitting withdrawal applications. SOEs will be carefully compared for eligibility with relevant financial agreements and the disbursement letter, with reference to the programme design report for guidance when necessary. The auditor's opinion should deal with the adequacy of the procedures used by the programme for preparing SOEs and should include a statement that amounts withdrawn from the programme account on the basis of such SOEs were used for the purposes intended under the agreement.
- d) In addition, auditors shall provide a separate management letter addressing the adequacy of the accounting and internal control systems of the programme, including compliance with the IFAD Procurement Guidelines and such other matters as IFAD may request.

20. **Procurement.** Programme procurement will follow the national procedures to the extent that they are consistent with the IFAD Programme Procurement Guidelines. To the extent possible, the procurement of goods, civil works and consulting services shall be bulked into sizeable bids so as to permit optimal use of competitive bidding. Procurements shall be documented for ex-post review by IFAD and for audit purposes. Consolidated procurement plans covering a period of 18 months will be prepared as part of the AWPB and submitted to IFAD for "no objection" review, before commencement of procurement. It should provide information of goods, works and services disaggregated into different components, including: (i) description of goods, works or services to be procured; (ii) procurement method; (iii) estimated unit cost for each item; (iv) estimated cost for each procurement; and (v) review procedure (post or prior review by IFAD). A procurement plan for the first 18 months has been prepared during the final Programme design mission, and is available in the Programme Life File. In line with IFAD's Programme Procurement Guidelines, the following threshold recommended for the programmes are subject to prior review by IFAD:

- a) Award of any contract for goods and work estimated to cost USD 60 000 or more;
- b) Award of any contract for consulting services estimated to cost USD 30 000 or more.

21. All contracts, with or without prior IFAD approval, shall be listed in the Register of Contracts with the dates of approval. The Register shall be updated and submitted to the IFAD on a six-monthly basis.

22. **Contract Management** is critical to the smooth and successful implementation of the Programme. The NPMO should introduce the system to ensure that the rights & duties of each party to contract are provided to ensure delivery on time, with the right quality and as per/ within budget. For effective contract administration, each contract should contain all pertinent deliverables, timing, deadlines, results-oriented reporting and expected outcomes, with measurable indicators. The

template of the Contract Monitoring Form is available in the Procurement Handbook as well as in IFADs Loan Disbursement Handbook. The contract monitoring form should be submitted to IFAD after each prior review contract has been signed and along with each WA for all contracts with ongoing payments.

23. **Financial Statements.** The financial statements of the Programme for each fiscal year should consist of (i) yearly and cumulative statements of sources and application of funds, which should disclose separately IFAD funds, GOL funds, other donor funds and beneficiaries funds and (ii) the Balance Sheet which should disclose bank and cash balances that agree with the statement of sources and application of funds, fixed assets and liabilities; (iii) yearly and cumulative SOEs by WA and category of expenditures and (iv) a statement of the DA. The NPMO shall prepare and deliver to IFAD such financial statements within three months of the end of each Fiscal Year. The aforesaid statements duly audited should be delivered to IFAD within six months of the end of each Fiscal Year.

Financial Management Assessment

Project # Northern Smallholder Livestock Commercialization Project (NSLCP) Rural Financial Services Programme	
Implementing Entity: Department of Livestock and Fisheries (DLF), Ministry of The Ministry of Agriculture and Forestry (MAF)	
Review completed by Nguyen Thu Hoai	Date : 19 August 2016

I. SUMMARY

Risk	Risk	Risk Mitigating Measures incorporated into Programme Design
Inherent Risk	H	Recent World Bank country level appraisal indicates that sector PFM is “weak”. The Ministry of Finance of Government of Lao PDR has established good systems for their financial monitoring and the government is giving special emphasis for transparency in financial management. The Programme will be controlled and managed via a currently established NPMO to manage implementation of the activities.
Programme Level The ability of NPMO to effectively coordinate implementation.	M	Adequate staffing arrangements at NPMO level. International financial specialist will support to set up the FMM system. Training/on the job training to be provided to NPMO and district level staff to strengthen accountability; fiduciary capacity. Fiduciary capacity assessments to be performed at district level before commencement of fund-flows. Training to be provided by NPMO/consultants. Needs-based support from NPMO offices with budget preparation and

		reporting.
<p>Budgeting</p> <p>NPMO is responsible for consolidation and preparations the AWPB. Delays by Provincial/Implementing agency in submitting AWPB and delays by NPMO in consolidated AWPB for approval by IFAD</p>	M	<p>Expected to be addressed through NPMO and to be covered in the PIM, which has to be prepared within specified timeline. Similarly, at provincial and implementing agency level.</p>
<p>Accounting</p> <p>Staff for this function may not have sufficient skills and capacity to perform the tasks.</p>	M	<p>Projects have clear chart of accounts.</p> <p>Staff to be recruited subject to qualifications and professional experience.</p> <p>Financial staff, especially at district level are considered weak. This issue will be resolved by intensive capacity building of the finance staff on financial management and financial administration.</p>
<p>Internal Controls</p> <p>Risk of internal control as the system was not in place.</p>	H	<p>The Programme's internal controls will be designed to ensure effectiveness and efficiency of operations, reliability of reporting and compliance through dynamic processes. Roles and responsibilities will be aligned to project objectives. This will include elements such as the control environment, risk assessment, communication and monitoring to ensure coherence with good governance and the mutual accountability framework. The project implementation manual (PIM), including the FMM, will detail the control framework based on best practises. These manuals must be endorsed by IFAD prior to the first disbursement.</p> <p>Regular IFAD supervision missions will help ascertain the level of compliance for internal controls and procurement</p> <p>The review of internal controls and procurement will also be covered by annual audits</p>
<p>Funds Flow</p> <p>Staff have experience with IFAD policies and procedures and experience in handling IFAD funded projects.</p>	M	<p>Direct payment should be used to the maximum extent.</p> <p>Flow of funds and disbursement arrangements. Immediately after entry into force of the Financing Agreement, there shall be one Designated Account denominated in US dollars to be opened for the IFAD loan. The Designated Accounts will be maintained by Ministry of Finance. The Borrower shall inform the Fund on the officials authorized to operate the Designated Accounts. In accordance with Section 3.1 of the IFAD Loan Disbursement</p>

		Handbook, the Designated Accounts will be administered following imprest Fund arrangements.
Financial Reporting NPMO may lack the capacity to supervise district and Implementing Agency to submit timely and acceptable reports for consolidation into quarterly/annually reports for submission to IFAD.	M	Training to be provided to accounts staff on GOL and IFAD procedures Capacity building for NPMO/district staff Close monitoring of district progress and financial reporting by NPMO offices Template of reporting to be included in the FMM
Auditing Scope of audit work may not be comprehensive to cover all programme activities.	H	Previous experience with other IFAD funded projects show that performance is unsatisfactory. An International Independent Auditor Firm should audit the project accounts. Audit ToR will include all programme activities and be subject to IFAD approval.
Overall FM Risk	M	Implementation of mitigation actions, as proposed above, will reduce risk to L

II. DETAIL

Topic		Response
1.	Organization and Staffing	
1.1	Which entity is the LPA? What is the entity's legal status?	Department of Livestock and Fisheries (DLF), Ministry of The Ministry of Agriculture and Forestry (MAF)
1.2	Will financial management of the project be the responsibility of the LPA or be undertaken within the-PIU/PCO?	National Project Management Office (NPMO)
1.3	Has the entity implemented a donor financed project in the past - if so, please provide details?	Yes. Previous IFAD funded project
	Staffing	
1.4	What is the (proposed) organizational structure of the accounting department?	At NPMO level: 3 full-time finance officers plus a cashier and four full time finance officers at each province.
1.5	Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Finance officers are from the previous IFAD funded project. As such they have experience with IFAD projects. ToRs were available for each position.

Topic		Response
1.6	Are written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Written position descriptions from NPMO staff include clearly defined duties and responsibilities
1.7	Is the finance and accounts staff adequately qualified and experienced?	Yes
1.8	Are the project accounts and finance staff trained in IFAD procedures?	Yes, they received training from the previous IFAD project
1.9	Are any Finance Staff appointed on contract? What is the duration of the contracts? Indicate key positions not contracted yet, and the estimated date of appointment	Finance officers are Government staff and have long term contracts.
1.10	What is training policy for the finance and accounting staff?	Finance officers have received training on GOL and IFAD rules from the previous project. However, an FM training on IFAD and GOL procedures should be carried out as soon as possible after the FA is signed. During implementation, training will be based on assessed needs, in consultation with IFAD.
2.	Budgeting	
2.1	Who is responsible for preparation and approval of project budgets?	The NPMO will be responsible for the consolidation and preparation of the project budget. Project budget to be submitted to IFAD/donors for clearance and then to GOL for approval.
2.2	Are project budgets prepared for all significant project activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	The existing government budgeting process requires all the significant activities to be presented in the AWPB.
2.3	Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes, procedures will be detailed in PIM.
3	Funds Flow/Disbursement Arrangements	
3.1	Does the Implementing Entity have previous experience of using imprest fund and donor funding SOE procedures? Were there any problems or issues encountered by project staff in the operation of the imprest fund or SoE procedures in the past?	YES None reported by donors

Topic		Response
3.2	<p>Does the Implementing Entity have experience in the management of disbursements from IFAD or other donors?</p> <p>Have there been the major problems in the past in receipt of funds by the entity?</p>	<p>YES (IFAD and ADB)</p> <p>None of significance</p>
3.3	<p>Does the entity have/need to develop capacity to manage foreign exchange risks?</p>	<p>The design of the computerised system is customised to record both local and foreign currencies. The NPMO staff need to improve their capacity to manage the foreign exchange risk</p>
3.4	<p>Are the beneficiaries required to contribute to project costs?</p> <p>How are payments made for the counterpart funds?</p> <p>If counterpart funds are to be contributed in kind (in the form of labour), are proper guidelines formulated to record and value the labour contribution?</p>	<p>Yes, the beneficiaries are required to contribute to the project cost, which can be in cash or in kind.</p> <p>Yes</p>
3.5	<p>Is part of the project implemented by communities or NGOs?</p> <p>Does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?</p>	<p>N/A</p>
3.6	<p>Describe (proposed) project funds flow arrangements; (attach flow chart and explanation of the flow of funds from IFAD, government and other financiers.</p>	<p>Will be detailed in FMM</p>
3.7	<p>In which bank will the Imprest Account be opened?</p>	<p>Bank of Lao PDR</p>

Topic		Response
4.	Internal Controls	
4.1	Segregation of duties - are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	The proposed organization chart of the finance department and finance officer's job descriptions are identified and include the segregation of duties.
4.2	Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes, to be covered in the FMM
4.3	Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes, to be covered in the FMM
5.	Accounting Systems, Policies and Procedures	
5.1	Does the entity have an integrated accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	The previous phase used ACCPAC software and it worked well. The accounting systems follow the MoF procedures manual linked to donor specific requirement.
5.2	Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	To be covered in the FMM to ensure that the control procedures for the preparation and approval of transactions are correctly made and adequately explained.
5.3	Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	The Programme has recruited an international finance specialist to support the Programme in setting up the financial management system including the FMM, chart of account.
5.4	Can cost allocations to the various funding sources be made accurately?	Yes
5.5	Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes
5.6	Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	All original documentation to be maintained at NPMO and Provincial level. GOL requires retention of records for 10 years.
5.7	What is the basis of accounting (e.g., cash, accrual)?	Accrual
5.8	What accounting standards are followed?	International Accounting Standards

Topic		Response
5.9	Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	To be covered in the FMM
5.10	Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	To be covered in the FMM
5.11	Is there a written policies and procedures manual covering all routine project financial management activities? Are manuals distributed to appropriate personnel?	To be covered in the FMM
Payments		
5.12	Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	To be covered in the FMM
Cash and Bank		
5.13	Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes
5.14	Are bank and cash reconciled on a monthly basis?	Yes
5.15	Indicate names and positions of authorized signatories of project bank accounts.	Representative of MOF for DA
Safeguard over Assets		
5.16	Is there a Fixed Asset accounting system, with a Fixed Asset Register, fully implemented - as part of an integrated accounting system? Is the system maintained up to date?	Fixed asset module of accounting software
5.17	Are there periodic physical reconciliation of fixed assets and stocks?	Will be included in the FMM
Other		
5.18	Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	To be covered at start up/FMM
5.19	Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	To be covered in the FMM

Topic		Response
5.20	Do controls exist for the preparation of the project payroll and are changes to the payroll properly authorized	To be covered in the FMM
6.	Reporting and Monitoring	
6.1	Does the reporting system need to be adapted to report on the project components?	The reporting system needs to be adapted to report both Programme components and categories.
6.2	Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and the frequency of production.?	Yes
6.3	What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to be useful to management for decision making?	Annual Timeliness to be included in the FMM
6.4	Do the financial reports compare actual expenditures with budgeted and programmed allocations?	To be covered in the FMM and ToR to develop the software
6.5	Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	To be covered in the FMM and ToR to develop the software
6.6	(In case of need of consolidated financial statements) Is the accounting system sufficiently equipped to ensure proper consolidation of entities' financial data?	To be covered in the FMM and ToR to develop the software
	Information Systems	
6.7	Is the financial management system computerized?	Accounting software will be used
6.8	Can the system produce the necessary project financial reports?	YES
6.9	Is the staff adequately trained to maintain the system?	YES, at central level; training to be provided at Provincial and District level
6.10	Are adequate systems in place to "back up" financial records	To be covered in the FMM
7.	Internal Audit	
7.1	Is there an internal audit department in the LPA?	NO
7.2	What are the qualifications and experience of internal audit department staff?	N/A
7.3	To whom does the internal auditor report?	N/A
7.4	Will the internal audit department include the project in its work program?	N/A

Topic		Response
7.5	Are actions taken on the internal audit findings?	N/A
8.	External Audit	
8.1	Who is the external auditor of the entity?	General auditor
8.2	Are there any delays in audit of the entity? When are the audit reports issued?	NO
8.3	Is the audit of the entity conducted according to the International Standards on Auditing?	Yes
8.4	Were there any major accountability issues brought out in the audit report of the past three years? Were there any issues noted in prior audit reports related to the operation of project imprest accounts or use of SOE procedures?	NO
8.5	Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	International Independent Auditor Firm should audit the project accounts. Audit ToR will include all programme activities and be subject to IFAD approval
8.6	Has the project prepared acceptable terms of reference for an annual project audit?	Will be prepared before negotiations

Appendix 8: Procurement

1. The NSLCP-RFSP will be responsible for procuring a range of goods, works and services as set out in the AWPBs. The procurement systems used will be guided by the Government's Procurement Manual⁷⁵ (2009), published by MoF with support from the World Bank-financed Financial Management Capacity Building Project. Procurement guidelines to be set out in the NSLCP-RFSP Procurement Manual will provide a sound basis for procurement under this Programme.
2. The NSLCP-RFSP will providing for TA and training in procurement to build the capacity of its procurement team and that of provincial and district government offices. While most procurement will initially take place at regional level through the NPMO, it is expected that, starting in Programme Year 2 when the NSLCP-RFSP will commence rural credit services and financing SLPMGs, that district staff and communities will be sufficiently skilled for a district procurement threshold of USD 10,000 to be applied and for communities, under the guidance of contracted Service providers, to manage community force account construction for minor works. The inclusion of rural youth in force account construction work will be encouraged. This threshold will necessitate the use of national shopping (USD 375 to USD 62,500) by districts, in compliance with procurement method rules. Any procurement above USD 8,000 will continue to be handled by the NPMO. Limited capacity issues at district level will also be mitigated through IFAD's prior review of the first ten goods and works contracts and all consultants' services contracts throughout Programme life, regardless of the amounts involved.
3. The thresholds for each method of procurement, applicable to all types of procurement will be as follows: up to LAK 3 million (USD 375) for direct purchase; from LAK 3 million (USD 375) up to LAK 500 million (USD 62,500) for national shopping; from LAK 500 million (USD 62,500) up to LAK 5 billion (about USD 625,000) for NCB for goods; and from LAK 500 million (USD 62,500) up to LAK 25 billion (about USD 3,725 million) for NCB for works. ICB, although not envisioned, will take place for goods beyond LAK 5 billion (USD 625,000) and works beyond LAK 25 billion (USD 3.725 million). All service providers will be hired through renewable, performance-based contracts.

GOODS AND SERVICES TO BE PROCURED

4. The IFAD highly concessional loan will fund most goods, works and services under the NSLCP-RFSP. Table 1 below breaks down procurement under the Programme by type of expenditure (procurement account) and procurement method.

⁷⁵ The Government's Procurement Manual was not assessed to be acceptable by IFAD for procurement under the International Competitive Bidding method. However, no procurement under this method is envisaged for this programme (if that were the case, the IFAD Procurement Guidelines, rather than the Government regulations, will be used).

Table 1 - Procurement under the NSLCP-RFSP, including contingencies (USD 000)

Lao PDR Northern Smallholder Livestock Commercialization Project Procurement Arrangements - Non ICB/LCB Aggregated a (US\$ '000)	Procurement Method					Total
	Local					
	Competitive Bidding	Consulting Services	Other	N.B.F.		
A. Unallocated_PA	-	-	-	-	-	
B. Civil Works	-	-	-	-	-	
C. Vehicles and Equipment						
1. Vehicles	32	-	-	-	-	32
2. Motorcycles	-	-	-	-	-	
3. Equipment	3,000 (2,400)	-	2,140	-	-	5,140 (2,400)
D. Extension Materials	-	-	112	-	-	112
E. QCBS P1 Start up consultants	-	2,617	-	-	-	2,617
F. QCBS P2 LIC	-	49	-	-	-	49
G. SC P1 PAC Management	-	1,850	-	-	-	1,850
H. Revolving Funds	-	-	6,300	-	-	6,300
I. Surveys and Studies	-	-	1,741 (396)	570	-	2,311 (396)
J. Farmer Training, Study Tours & Exchanges	-	-	-	-	-	
K. Agency Training	-	-	1,081	-	-	1,081
L. Vehicle and Equipment O&M	-	-	92	-	-	92
Total	3,032 (2,400)	4,517 -	11,466 (396)	570 -	-	19,584 (2,796)

Note: Figures in parenthesis are the respective amounts financed by ADB Loan

5. The annual breakdown of the total amounts spent under the different procurement accounts are projected as follows.

Table 2: Procurement by year

Lao PDR Northern Smallholder Livestock Commercialization Project Procurement Accounts by Years (US\$ '000)	Totals Including Contingencies					Total
	2017	2018	2019	2020	2021	
A. Unallocated_PA	-	-	-	-	-	-
B. Civil Works	-	-	-	-	-	-
C. Vehicles and Equipment						
1. Vehicles	32	-	-	-	-	32
3. Equipment	1,672	2,528	395	415	130	5,140
Subtotal	1,704	2,528	395	415	130	5,172
D. Extension Materials	27	28	28	28	-	112
E. QCBS P1 Start up consultants	880	749	636	223	129	2,617
F. QCBS P2 LIC	10	10	10	10	10	49
G. SC P1 PAC Management	490	483	402	313	162	1,850
H. Revolving Funds	4,300	2,000	-	-	-	6,300
I. Surveys and Studies	574	590	565	356	226	2,311
J. Farmer Training, Study Tours & Exchanges	-	-	-	-	-	-
K. Agency Training	220	294	250	199	118	1,081
L. Vehicle and Equipment O&M	34	23	35	-	-	92
Total	8,238	6,706	2,321	1,544	775	19,584

6. **Civil Works:** These procurements relate mainly to upgraded TSCs, village livestock water development, livestock holding and loading and forage fencing infrastructure. Procurement will either be implemented through community force account construction, or, for larger investments, handled by NPMO, which will work closely with the District Department of Transport and Civil Works, who are experienced in procuring these types of works and adequate national contractors are available to undertake them. The inclusion of rural youth in force account construction work will be encouraged. Procurement will be conducted as per Lao Government's procurement Implementing Rules and Regulations⁷⁶, with the labour element, which will primarily be contribution in-kind, supervised by community groups, overseen by the contracted Service Provider and/or the district offices of the relevant department.

7. **SLPMG members** will be trained to enable them to supervise and monitor the construction of funded infrastructures (sub-contracted sub-projects) or construct the infrastructure themselves (CFA). The training will focus on Programme processes and include technical training. This SLPMG members will also receive training on community ownership and empowerment as well as training related to long-term operation and maintenance of infrastructures. Under a CFA, the community will implement the sub-project using its own resources (skilled and unskilled labour, materials, equipment) and may subcontract part of the sub-project to contractors or suppliers which may be procured following the aforementioned procedures. This approach is community driven and cost effective (inputs can be provided by the community at below-market costs), and will injects funds into the community (e.g., through the payment of wages and materials). The contract price signed with communities will be within local market rates or established estimates as indicated in a Unit Cost Database. CFA procurement method, threshold values, and steps of procurement will be defined in a Community Procurement Manual as part of the PIM.

8. **Equipment:** This includes office and computing equipment and financial management software for financial institutions and veterinary equipment, animal husbandry tools and small amounts of hand tools for community-based initiatives. Physical requirements will be established in the AWPBs and the preliminary procurement support work (listing goods, preparing technical specifications, estimating cost, preparing bidding documents, issuing of invitation and advertisement) will be carried out by the NPMO. The final procurement decision will be made by a committee constituted in line with the Implementing Rules and Regulations. Because some of these items are imported and will incur duty, it will be important to plan their procurement ahead of time and ensure that they are included on the programme's master list of goods eligible for procuring without import duty, excise tax or VAT. In that way, they will be tax exempt. MoF makes no provision for retroactive tax relief on goods which have been imported and on which tax has been paid prior to acquisition by the programme.

9. **Agri-inputs for Innovation activities:** which will typically be items such as seeds and seedlings, fertilisers, etc. will be procured using local shopping, following established rules and procedures which require asking for at least three bids. Some forage seed will be purchased from farmers through force-account. The limits for national shopping are from LAK 3 million (about USD 375) to LAK 500 million (USD 62,500). Generally, these items will be procured either at the district, or province level, following standard Government procedures.

10. **Technical Assistance:** The procurement of these services, which will be managed by the NPMO will be done in accordance with IFAD procurement procedures. The compensation of all Project International TA will be tax-exempt in Lao PDR.

11. **Training and capacity building:** The procurement of these items will mainly be done through national competitive bidding, quality and cost-based procurement or local shopping depending on the amounts.

⁷⁶ Set out in Decrees 03/PM and 063/MOF of 2004.

12. **Most operating costs** which mainly comprise payment of per diems, travel costs and minor items such as stationery, equipment repairs etc. will be by direct purchase following Government procedures. The upper threshold for direct purchase is LAK 3 million (USD 375).

Procurement Plan for First 18 month

Bid Ref.	Description	Financier	Main Implementing Agency	IFAD Loan/Grant Category	Pro-posed no. of pack-ages	Total allocated amount, USD	Allocated amount for 18 months, USD	Procurement selection method	Prior review (Yes/No)	Start date	Bid Opening Date	End date	Additional remarks
Output 1: Smallholder livestock production and marketing groups						3,919,373	2,278,055						
	Extension material (posters, case studies, brochures)	IFAD Loan	NPCO	Equip. Goods & services	1	111,655	41,193	Shopping	No				
	Field days	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	NA	139,564	45,876	Force Account	No				
	Village learning activity	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	NA	175,691	51,491	Force Account	No				
	LPMG cross visits	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	NA	106,936	24,964	Force Account	No				
	Farmer-to-farmer training	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	NA	175,691	51,491	Force Account	No				
	Farmer field schools	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	NA	209,836	63,040	Force Account	No				
	Demand-driven infrastructure, equipment and services	ADB	PAFO/DAFO	Grants	multi	3,000,000	2,000,000	Shopping	No				
Output 2: Technology development						1,889,694	609,222						
	Provincial market studies	IFAD Loan	NPMO	TA/Trg./Stud.	2	57,749	28,473	Con. Services	No				
	Forage production adviser	IFAD Loan	NPMO	TA/Trg./Stud.	1	46,038	28,553	Con. Services	Yes				
	Forage development programme	IFAD Loan	PAFO/DAFO	Equip. Goods & services	multi	497,343	145,032	Shopping	Yes				
	Animal breeding services support	IFAD Loan	PAFO/DAFO	Equip. Goods & services	NA	58,564	17,164	Shopping	No				
	Agriculture land tilling - IFAD	IFAD Loan	NPMO	Equip. Goods & services	NA	310,000	120,000	Force Account	No				
	Agriculture land tilling - ADB	ADB	NPMO	Equip. Goods & services	NA	350,000	135,000	Force Account	No				
	Agriculture land tilling - GoL	Government	NPMO	Equip. Goods & services	NA	570,000	135,000	Force Account	No				
Output 3: Financial services to NSLCP beneficiaries						4,850,491	4,740,057						
	LDP residual funds credit line	LDP Carry over	PAFO/DAFO	Rural Fin. Services	NA	2,400,000	2,400,000	Fin. Intern.	No				
	IFAD rural credit line	IFAD Loan	PAFO/DAFO	Rural Fin. Services	NA	1,900,000	1,900,000	Fin. Intern.	No				
	International TA	IFAD Loan	NPMO	TA/Trg./Stud.	1	165,441	115,089	Con. Services	Yes				
	Local MF Trainer	IFAD Loan	NPMO	TA/Trg./Stud.	1	190,005	135,718	Con. Services	Yes				
	Coaching	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	NA	40,582	48,888	Force Account	No				
	Class room training	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	NA	101,662	120,561	Force Account	No				
	Evaluation	IFAD Loan	NPMO	TA/Trg./Stud.	1	19,800		Con. Services	No				
	Hardware and software for district LWU teams /e	IFAD Loan	NPMO	Equip. Goods & services	2	33,000	19,800	Shopping	No				
Output 4: Networked village funds in NSLCP districts						5,952,007	2,572,948						
	International Staff and Travel Costs (Central Management)	GIZ	NPMO	TA/Trg./Stud.	NA	1,052,951	397,303	Other	No				
	International Staff and Travel Costs (Provincial Advisors)	GIZ	NPMO	TA/Trg./Stud.	NA	797,207	333,912	Other	No				
	Staff-related Costs: National Staff	IFAD Loan	NPMO	TA/Trg./Stud.	NA	1,975,468	832,550	Con. Services	Yes				
	Material and Equipment	IFAD Loan	NPMO	Equip. Goods & services	multi	723,270	487,650	Shopping	Yes				
	Financing contracts	IFAD Loan	NPMO	Rural Fin. Services	NA	342,730	71,367	Force Account	No				
	Other operating costs	IFAD Loan	NPMO	Equip. Goods & services	multi	311,915	120,656	Shopping	Yes				
	GIZ Overheads and Statutory Reserve	IFAD Loan	NPMO	Equip. Goods & services	NA	748,466	329,510	Force Account	Yes				
Output 5: Agriculture Refinancing Facility						2,447,156	2,245,081						
	International TA for design and start-up support	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	1	160,850	110,041	Con. Services	Yes				
	Agriculture refinancing facility fund	GoL & IFAD	BoL	Rural Fin. Services	NA	2,000,000	2,000,000	Fin. Intern.	Yes				
	Due diligence costs	IFAD Loan	BoL	TA/Trg./Stud.	multi	81,165	28,872	Force Account	No				
	Establishment and operational cost	IFAD Loan	BoL	Equip. Goods & services	NA	173,562	74,589	Force Account	No				
	Vehicle	IFAD Loan	NPMO	Equip. Goods & services	1	31,579	31,579	Shopping	No				
Output 6: Project oversight and management						525,293	230,121						
	Deputy Project Manager (NSLCP-FSP)	Government	NPMO	TA/Trg./Stud.	1	0		Force Account					
	Knowledge Management (KM) specialist	IFAD Loan	NPMO	TA/Trg./Stud.	1	49,193	14,418	Con. Services					
	RIMS impact surveys /c	IFAD Loan	NPMO	TA/Trg./Stud.	multi	92,397	45,717	Force Account					
	Support to development of MAF ProMIS system	IFAD Loan	NPMO	Equip. Goods & services	NA	115,510	74,110	Fin. Intern.					
	M&E and KAP studies /d	IFAD Loan		TA/Trg./Stud.	multi	77,631	18,319	Con. Services					
	Application of Household methodologies at SLPMG level /e	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	multi	96,303	21,783	Force Account					
	Training for Household methodologies facilitators /f	IFAD Loan	PAFO/DAFO	TA/Trg./Stud.	multi	34,487	22,938	Force Account					
	Household Methodologies - Int. Adviser	IFAD Loan	NPMO	TA/Trg./Stud.	1	59,771	32,836	Con. Services					
Project Total						19,584,013	12,675,483						

Appendix 9: Project cost and financing

Main assumptions

1. **Programme duration.** The duration of the NSLCP-RFSP is five years with a Programme start in early-2017.
2. **Prices and costs.** Costs are inputted in US dollars with inflation adjustments made for the differing cost bases. Data were collected by the consultants in the field and with partners. August 2015 prices have been applied.
3. **Inflation.** Local inflation reached 4.26% in 2012 and subsequently increased to 6.37% in 2013. Inflationary pressures eased steadily in 2014 owing to better food supplies and lower fuel prices, bringing the average rate in 2014 to 4.2%, the lowest in 5 years. In 2016, inflation is forecast to increase to 4.0% as domestic demand picks up and the prices of imported oil and food trend higher.⁷⁷ This cost estimate has therefore adopted a 5% per annum rate that is closer to the long term average than the current rate. For the purposes of cost estimation, the inflation rates adopted are shown in Table 1 below. These are consistent with those applied by the ADB during the initial NSLCP preparation.

Table 1 - Inflation rates (local and foreign)

Components	2016-17	2017-18	2018-19	2019-20	2021-22	2022-23
Foreign inflation	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Local inflation	5%	5%	5%	5%	5%	5%

4. **Exchange rate.** The exchange rate of LAK 8,100/USD is assumed.
5. The Programme costs are presented in both LAK and USD. Conversions from current USD values into Laotian Kip use constant purchasing power exchange rates
6. **Contingencies, taxes and duties.** Physical and contingencies as well as taxes, duties and share of foreign exchange across the expenditure accounts are presented in Table 2.

Table 2 - Physical contingencies, foreign exchange and taxes/duties per NSLCP-RFSP expenditure accounts

Expenditure accounts	Physical contingencies	Foreign exchange	Duties/taxes
Civil works (grants)	0%	25%	15%
Equipment	10%	70%	10%
Agricultural inputs	10%	30%	10%
SLPMG grants	-	40%	-
Trainings and capacity building	10%	20%	-
Technical assistance	-	90%	-
Other operating costs	10%	50%	-

7. **Total cost.** The total cost for the NSLCP-RFSP is estimated at USD 19.7 million (LAK 169.7 billion) including contingencies. The total base costs are USD 18.7 million (LAK 152.8 billion). Physical and price contingencies account for USD 0.27 million and USD 0.45 million respectively (1% and 2% of the total base costs). Investment costs are estimated at USD 18.7 million representing 100% of total base cost. The detailed breakdown of the base costs by component is shown in Table 3.

⁷⁷ ADB (2015), Asian development outlook 2015. Financing Asia's future growth. Mandaluyong City, Philippines: Asian Development Bank, 2015.

Table 3 - Component cost summary by outcomes, NSLCP-RFSP

Components Project Cost Summary	(Kip Ten Thousand)					(US\$ '000)				
	Local	Foreign	Total	%	% Total	Local	Foreign	Total	%	% Total
				Foreign Exchange	Base Costs				Foreign Exchange	Base Costs
A. Smallholder livestock producers adopt productive technology										
1. Smallholder livestock production and marketing groups	3,016,991	50,544	3,067,535	2	20	3,724.7	62.4	3,787.1	2	20
2. Technology development	1,166,036	289,130	1,455,165	20	10	1,439.6	357.0	1,796.5	20	10
Subtotal	4,183,026	339,674	4,522,700	8	30	5,164.2	419.4	5,583.6	8	30
B. Rural households access sustainable and scalable rural financial services										
1. Financial services to SLPNG members	3,763,442	124,919	3,888,361	3	25	4,646.2	154.2	4,800.4	3	25
2. Networked Village Funds in NSLCP districts	3,003,197	1,561,964	4,565,160	34	30	3,707.7	1,928.4	5,636.0	34	30
3. Agriculture Refinancing Facility	919,755	1,016,550	1,936,305	52	13	1,135.5	1,255.0	2,390.5	52	13
Subtotal	7,686,394	2,703,432	10,389,826	26	68	9,489.4	3,337.6	12,826.9	26	68
C. Effective project management	232,025	133,893	365,918	37	2	286.5	165.3	451.8	37	2
Total BASELINE COSTS	12,101,445	3,176,999	15,278,444	21	100	14,940.1	3,922.2	18,862.3	21	100
Physical Contingencies	146,116	69,812	215,928	32	1	180.4	86.2	266.6	32	1
Price Contingencies	941,265	459,284	1,400,549	33	9	305.7	149.5	455.2	33	2
Total PROJECT COSTS	13,188,826	3,706,094	16,894,920	22	111	15,426.1	4,157.9	19,584.0	21	104
Interest During Implementation	-	79,850	79,850	100	1	-	98.4	98.4	100	1
Total Costs to be Financed	13,188,826	3,785,944	16,974,770	22	111	15,426.1	4,256.3	19,682.4	22	104

8. **Component cost summary.** The Programme comprises two Outcomes (see Table 3). The first component, Smallholder livestock producers adopt productive technology is costed at USD 5.6 million (LAK 45.2 billion) representing 30% of the base costs. The second outcome, Rural households access sustainable and scalable rural financial services is estimated at USD 12.8 million (LAK 103.9 billion) representing 68% of the base costs. The Programme management component is estimated at USD 0.45 million (LAK 3.65 billion) representing 2% of the base costs.

9. **Cost by expenditure account.** The NSLCP-RFSP component cost by expenditure accounts plan is shown in Table 4.

Table 4 - Component costs by expenditure account, NSLCP-RFSP

Expenditure Accounts Project Cost Summary	(Kip Ten Thousand)					(US\$ '000)				
	Local	Foreign	Total	%	% Total	Local	Foreign	Total	%	% Total
				Foreign Exchange	Base Costs				Foreign Exchange	Base Costs
I. Investment Costs										
A. Grants and subsidies	2,624,400	64,800	2,689,200	2	18	3,240.0	80.0	3,320.0	2	18
B. Equipment and Materials	256,001	129,965	385,965	34	3	316.1	160.5	476.5	34	3
D. Goods, services and Inputs	1,818,896	766,625	2,585,520	30	17	2,245.6	946.5	3,192.0	30	17
E. Consultancies										
1. International Consultants	348,162	1,392,650	1,740,812	80	11	429.8	1,719.3	2,149.2	80	11
2. National Consultants	1,690,253	-	1,690,253	-	11	2,086.7	-	2,086.7	-	11
Subtotal	2,038,415	1,392,650	3,431,065	41	22	2,516.6	1,719.3	4,235.9	41	22
G. Credit	4,317,705	810,000	5,127,705	16	34	5,330.5	1,000.0	6,330.5	16	34
I. Training	755,238	-	755,238	-	5	932.4	-	932.4	-	5
K. Operating costs	290,790	12,960	303,750	4	2	359.0	16.0	375.0	4	2
Total BASELINE COSTS	12,101,445	3,176,999	15,278,444	21	100	14,940.1	3,922.2	18,862.3	21	100
Physical Contingencies	146,116	69,812	215,928	32	1	180.4	86.2	266.6	32	1
Price Contingencies	941,265	459,284	1,400,549	33	9	305.7	149.5	455.2	33	2
Total PROJECT COSTS	13,188,826	3,706,094	16,894,920	22	111	15,426.1	4,157.9	19,584.0	21	104
Interest During Implementation	-	79,850	79,850	100	1	-	98.4	98.4	100	1
Total Costs to be Financed	13,188,826	3,785,944	16,974,770	22	111	15,426.1	4,256.3	19,682.4	22	104

Financing plan

10. **Component cost by financier.** IFAD will provide a loan of USD 10 million (50.8%). The ADB will contribute USD 3.0 million (14.7%). LDP carry-over VLF financing amounts to USD 2.4 million (12.2%). GIZ will contribute USD 1.9 million (9.4%). Village beneficiary contribution will be USD 0.6 million (3.0%). The Lao PDR contribution is estimated at USD 1.9 million (9.8%). The Government contribution covers taxes, duties, a part of the land registration costs and Programme management staff. The NSLCP-RFSP financing plan is shown in Table 5.

Table 5 – Financing plan, NSLCP-RFSP

Lao PDR Northern Smallholder Livestock Commercialization F Disbursement Accounts by Financiers (US\$ '000)	GIZ		Beneficiaries		LDP Carry-over		ADB Loan		IFAD Loan		Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%				
	A. Vehicles	-	-	-	-	-	-	-	-	-	32	100.0	-	-				32
B. Credit																		
1. Agriculture Refinancing Facility	-	-	-	-	-	-	-	-	-	1,000	50.0	1,000	50.0	2,000	10.2	1,000	1,000	-
2. NSLCP Financial Services	-	-	-	-	2,400	55.8	-	-	-	1,900	44.2	-	-	4,300	21.8	-	4,300	-
Subtotal	-	-	-	-	2,400	38.1	-	-	-	2,900	46.0	1,000	15.9	6,300	32.0	1,000	5,300	-
C. Operating Costs	-	-	-	-	-	-	-	-	-	395	97.7	9	2.3	404	2.1	18	377	9
D. Training	-	-	-	-	-	-	-	-	-	1,081	100.0	-	-	1,081	5.5	-	1,081	-
E. Goods, Services and Inputs	-	-	-	-	-	-	-	396	11.8	2,111	63.0	845	25.2	3,352	17.0	1,025	2,052	275
F. Consultancies	1,850	41.4	-	-	-	-	-	-	-	2,545	57.0	72	1.6	4,468	22.7	1,842	2,554	72
G. Equipment and Materials	-	-	-	-	-	-	-	-	-	544	97.9	12	2.1	556	2.8	187	357	12
H. Grants and subsidies	-	-	600	17.9	-	-	-	2,400	71.8	343	10.3	-	-	3,343	17.0	86	3,257	-
I. Salaries	-	-	-	-	-	-	-	-	-	49	100.0	-	-	49	0.2	-	49	-
Total PROJECT COSTS	1,850	9.4	600	3.1	2,400	12.3	2,796	14.3	10,000	51.1	1,938	9.9	19,584	99.5	4,158	15,058	368	
Interest During Implementation	-	-	-	-	-	-	98	100.0	-	-	-	-	98	0.5	-	-	-	
Total Disbursement	1,850	9.4	600	3.0	2,400	12.2	2,895	14.7	10,000	50.8	1,938	9.8	19,682	100.0	4,158	15,058	368	

Appendix 9 – Annex 1

Cost table 1: Detailed cost table – Outcome 1, Output 1 – Totals including Contingencies (USD'000)

Cost table 2: Detailed cost table – Outcome 1, Output 2 – Totals including Contingencies (USD'000)

Cost table 3: Detailed cost table – Outcome 2, Output 1 – Totals including Contingencies (USD'000)

Cost table 4: Detailed cost table – Outcome 2, Output 2 – Totals including Contingencies (USD'000)

Cost table 5: Detailed cost table – Outcome 2, Output 3 – Totals including Contingencies (USD'000)

Cost table 6: Detailed cost table – Programme management – Totals including Contingencies (USD'000)

Cost table 7: Components Programme Cost Summary

Cost table 8: Expenditure Accounts Programme Cost Summary

Cost table 9: Expenditure Accounts by Components – Totals including Contingencies (USD'000)

Cost table 10: Expenditure Accounts by Components – Base Costs (USD' 000)

Cost table 11: Programme Components by Year -- Totals Including Contingencies (USD'000)

Cost table 12: Programme Components by Year -- Investment/Recurrent Costs (USD'000)

Cost table 13: Expenditure Accounts by Year -- Totals Including Contingencies (USD'000)

Cost table 14: Expenditure Accounts Breakdown (USD'000)

Cost table 15: Components by Financiers (USD'000)

Cost table 16: Disbursement Accounts by Financiers (USD'000)

Cost table 17: Expenditure Accounts by Financiers (USD'000)

Cost table 18: Local/Foreign/Taxes by Financiers (USD'000)

Cost table 19: Disbursements by Semesters and Government Cash Flow (USD'000)

Cost table 1: Smallholder livestock production and marketing groups

Lao PDR
Northern Smallholder Livestock Commercialization Project
Table 1. Smallholder livestock production and marketing groups

Detailed Costs

	Quantities					Total	Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)					Total	
	2017	2018	2019	2020	2021			2017	2018	2019	2020	2021		
I. Investment Costs														
A. Extension														
1. Extension material (posters, case studies, brochures) /a	12	12	12	12	-	48	2,000	27.3	27.7	28.1	28.5	-	111.7	
2. Field days /b	10	20	20	10	-	60	2,000	22.8	46.2	46.8	23.7	-	139.6	
3. Village learning activity	300	300	300	300	300	1,500	100	34.2	34.6	35.1	35.6	36.1	175.7	
4. LPMG cross visits	36	60	60	60	60	276	330	13.5	22.9	23.2	23.5	23.8	106.9	
5. Farmer-to-farmer training /c								34.2	34.6	35.1	35.6	36.1	175.7	
6. Farmer field schools								34.2	57.7	58.6	59.4	-	209.8	
Subtotal								166.1	223.8	226.9	206.4	96.1	919.4	
B. Demand-driven infrastructure and equipment /d	100	200	-	-	-	300	10,000	1,000.0	2,000.0	-	-	-	3,000.0	
Total								1,166.1	2,223.8	226.9	206.4	96.1	3,919.4	

/a Total of \$8000 per district to be spread out over 4 years

/b 5 field days per district.

/c Includes lead farmer selection, training and monitoring. SLPMGs will pay LFs for services.

/d Provided to farmer groups and communities on an in-kind matching grant basis

Cost table 2: Technology development

Lao PDR
Northern Smallholder Livestock Commercialization Project
Table 2. Technology development

Detailed Costs

	Quantities							Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)								
	2015	2016	2017	2018	2019	2020	2021		Total	2015	2016	2017	2018	2019	2020	2021	Total
I. Investment Costs																	
A. Market studies																	
Provincial market studies	-	-	1	-	1	-	-	2	25,000	-	-	28.5	-	29.3	-	-	57.7
B. Forage development programme /a																	
1. Forage production adviser	-	-	1	0.5	0.5	-	-	2	20,000	-	-	22.8	11.5	11.7	-	-	46.0
2. Forage development programme										-	-	75.7	138.6	140.5	142.5	-	497.3
Subtotal										-	-	98.5	150.1	152.2	142.5	-	543.4
C. Animal breeding support programme																	
Animal breeding services support /b										-	-	11.4	11.5	11.7	11.9	12.0	58.6
D. Agricultural land titling programme /c																	
Agriculture land titling - IFAD										-	-	80.0	80.0	80.0	35.0	35.0	310.0
Agriculture land titling - ADB /d										-	-	90.0	90.0	90.0	40.0	40.0	350.0
Agriculture land titling - GoL /e										-	-	60.0	150.0	150.0	150.0	60.0	570.0
Total										-	-	368.4	481.7	513.2	379.4	147.0	1,889.7

^a The forage programme would apply the same approach as that to be implemented under the GAFSP-financed SSFSNP.

^b Goods, equipment and services to support livestock breeding activities at SLPMG level.

^c The programme will support land titling in all of the estimated 200 NSLCP villages

^d Subject to GoL and ADB agreement and budget restructuring at NSLCP mid-term review.

^e GoL contribution made through DoNRE recycling of household-paid "technical survey fees" for additional land survey work in the district.

Table 3: Financial services to NSLCP beneficiaries

Lao PDR
Northern Smallholder Livestock Commercialization Project
Table 3. Financial services to NSLCP beneficiaries
Detailed Costs

	Quantities						Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)					
	2017	2018	2019	2020	2021	Total		2017	2018	2019	2020	2021	Total
I. Investment Costs													
A. NSLCP Livestock Credit													
1. LDP residual funds credit line								2,400.0	-	-	-	-	2,400.0
2. IFAD rural credit line								1,900.0	-	-	-	-	1,900.0
Subtotal								4,300.0	-	-	-	-	4,300.0
B. Technical Support to NSLCP Livestock Credit													
1. Salaries													
International TA /a								86.3	57.5	21.6	-	-	165.4
Local MF Trainer /b								101.8	67.9	20.4	-	-	190.0
Subtotal								188.1	125.4	41.9	-	-	355.4
2. Training sessions													
Coaching /c								20.2	16.6	3.8	-	-	40.6
Class room training /d								37.8	37.8	26.1	-	-	101.7
Subtotal								58.0	54.4	29.8	-	-	142.2
3. Evaluation								-	-	-	-	19.8	19.8
4. Hardware and software for district LWU teams /e								16.5	6.6	3.3	3.3	3.3	33.0
Total								4,562.6	186.4	75.1	3.3	23.1	4,850.5

a Senior international MF expert/team leader (1) Y1= 120, Y2= 80, Y3= 30 days.

b Local professional MF trainer (2)Y1= 150, Y2= 100, Y3= 50 days

c On the job knowledge delivery (transport and DSA)

d Operational staff training courses (class room training delivery) 2-3 courses per year (transport, stationary and DSA)

e Includes laptop computers, software and MBWIN licences at provincial level.

Table 4: Networked Village Funds in NSLCP districts

Lao PDR
Northern Smallholder Livestock Commercialization Project
Table 4. Networked village funds in NSLCP districts

Detailed Costs

	Quantities						Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)					
	2017	2018	2019	2020	2021	Total		2017	2018	2019	2020	2021	Total
I. Investment Costs													
A. Support to Village Funds													
International Staff and Travel Costs (Central Management) /a								268.2	258.3	275.7	147.9	102.9	1,053.0
International Staff and Travel Costs (Provincial Advisors) /b								221.6	224.7	126.7	165.2	59.1	797.2
Staff-related Costs: National Staff /c								563.3	538.6	548.3	215.9	109.5	1,975.5
Material and Equipment								414.2	147.0	85.2	54.0	23.0	723.3
Financing contracts /d								39.3	64.0	16.0	151.1	72.2	342.7
Other operating costs								80.8	79.8	79.8	51.8	19.7	311.9
GIZ Overheads and Statutory Reserve /e								236.1	186.9	166.1	104.7	54.7	748.5
Total								1,823.3	1,499.2	1,297.7	890.6	441.1	5,952.0

\a The average number of international experts in the overall management of the activity is 1.8 and decreases over time.

\b Each provincial team is supported by an international "junior" adviser.

\c In addition to the national staff in central management, each provincial team consists of 11 Lao nationals: Manager, Deputy Manager, Financial Literacy Manager, Administrator, 6 Field Officers and a Driver.

\d This item covers (a) budgets to support the operations of the existing NSO in Luang Namtha province in the three NSLCP districts (two already covered by the NSO, one new one), and (b) the grants for the equity capital to register

\e Based on the rules of GIZ, these costs must be covered by other members of the development partnership.

Table 5: Agriculture Refinancing Facility

Lao PDR
Northern Smallholder Livestock Commercialization Project
Table 5. Agriculture Refinancing Facility

Detailed Costs

	Quantities					Total	Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)					Total
	2017	2018	2019	2020	2021			2017	2018	2019	2020	2021	
I. Investment Costs													
A. Agriculture Refinancing Facility													
International TA for design and start-up support /a	2	1.5	0.5	-	-	4	35,000	79.7	60.6	20.5	-	-	160.8
Agriculture refinancing facility fund /b								-	2,000.0	-	-	-	2,000.0
Due diligence costs /c								-	57.7	23.4	-	-	81.2
Establishment and operational cost /d								34.2	80.8	58.6	-	-	173.6
Vehicle	1	-	-	-	-	1	30,500	31.6	-	-	-	-	31.6
Total								145.5	2,199.2	102.5	-	-	2,447.2

\a International TA for ADRF is costed at USD 35,000 per month, including the daily fees, DSAs at UN prices and international travel.

\b In addition to this NSLCP-RFSP allocation of USD 2 million (50% IFAD, 50% GoL), refinancing capital will become available from the NSLCP livestock credit scheme reflows in PY5 and, in the event that the start-up is successful, new

\c Due Diligence processes on applicant financial institutions are to be conducted by international banking/MFI experts. For costs efficiency, various institutions can be assessed during one visit of an expert.

\d Initial costs for establishing the office for the ARF Management Unit, including office equipment, computers and MIS software for refinancing operations as well as Year-1 staff salaries.

Cost table 6: Effective Programme Management

Lao PDR
Northern Smallholder Livestock Commercialization Project
Table 6. Project oversight and management
Detailed Costs

	Quantities						Unit Cost (US\$)	Totals Including Contingencies (US\$ '000)						
	2017	2018	2019	2020	2021	Total		2017	2018	2019	2020	2021	Total	
I. Investment Costs														
A. Project management														
1. National Project Management Office /a														
a. Staff /b														
(G) Deputy Project Manager (NSLCP-FSP)		12	12	12	12	12	60		-	-	-	-	-	-
(C) Knowledge Management (KM) specialist		12	12	12	12	12	60	700	9.6	9.7	9.8	10.0	10.1	49.2
Subtotal									9.6	9.7	9.8	10.0	10.1	49.2
b. Project M&E and KM														
RIMS impact surveys /c									34.2	23.1	35.1	-	-	92.4
Support to development of MAF PromIS system									68.3	11.5	11.7	11.9	12.0	115.5
M&E and KAP studies /d									11.4	13.9	14.1	14.2	24.1	77.6
Subtotal									113.9	48.5	60.9	26.1	36.1	285.5
c. Gender development - Household methodologies														
Application of Household methodologies at SLPMG level /e									11.4	20.8	21.1	21.4	21.7	96.3
Training for Household methodologies facilitators /f									11.4	23.1	-	-	-	34.5
Household Methodologies - Int. Adviser		1	0.5	0.5	0.25	-	2.25	23,000	26.2	13.3	13.5	6.8	-	59.8
Subtotal									49.0	57.2	34.5	28.2	21.7	190.6
Total									172.4	115.4	105.3	64.3	67.9	525.3

\a MAF's Department of Planning and Co-operation (DoPC) will establish a NPMO.

\b (G): government staff; (C): contractual staff

\c Conducted at Programme start-up, mid-term and completion

\d To support project mid-term and completion reporting. Studies to be coordinated by the NAFRI with PAFO support

\e Trained local facilitators will implement Household Methodologies approach with SLPMG member households.

\f To support project mid-term and completion reporting. Studies to be managed by the NAFRI Policy Think Tank

Cost table 7: Components Programme Cost Summary

Lao PDR
Northern Smallholder Livestock Commercialization Project
Components Project Cost Summary

	(Kip Ten Thousand)					(US\$ '000)				
	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs	Local	Foreign	Total	% Foreign Exchange	% Total Base Costs
A. Smallholder livestock producers adopt productive technology										
1. Smallholder livestock production and marketing groups	3,016,991	50,544	3,067,535	2	20	3,724.7	62.4	3,787.1	2	20
2. Technology development	1,166,036	289,130	1,455,165	20	10	1,439.6	357.0	1,796.5	20	10
Subtotal	4,183,026	339,674	4,522,700	8	30	5,164.2	419.4	5,583.6	8	30
B. Rural households access sustainable and scalable rural financial services										
1. Financial services to SLPMPG members	3,763,442	124,919	3,888,361	3	25	4,646.2	154.2	4,800.4	3	25
2. Networked Village Funds in NSLCP districts	3,003,197	1,561,964	4,565,160	34	30	3,707.7	1,928.4	5,636.0	34	30
3. Agriculture Refinancing Facility	919,755	1,016,550	1,936,305	52	13	1,135.5	1,255.0	2,390.5	52	13
Subtotal	7,686,394	2,703,432	10,389,826	26	68	9,489.4	3,337.6	12,826.9	26	68
C. Effective project management	232,025	133,893	365,918	37	2	286.5	165.3	451.8	37	2
Total BASELINE COSTS	12,101,445	3,176,999	15,278,444	21	100	14,940.1	3,922.2	18,862.3	21	100
Physical Contingencies	146,116	69,812	215,928	32	1	180.4	86.2	266.6	32	1
Price Contingencies	941,265	459,284	1,400,549	33	9	305.7	149.5	455.2	33	2
Total PROJECT COSTS	13,188,826	3,706,094	16,894,920	22	111	15,426.1	4,157.9	19,584.0	21	104
Interest During Implementation	-	79,850	79,850	100	1	-	98.4	98.4	100	1
Total Costs to be Financed	13,188,826	3,785,944	16,974,770	22	111	15,426.1	4,256.3	19,682.4	22	104

Cost table 8: Expenditure Accounts Programme Cost Summary

Lao PDR

Northern Smallholder Livestock Commercialization

Detailed Cost Estimate by Expenditure Category

	(Kip Ten Thousand)			% Foreign Exchange	% Total Base Costs	(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Foreign	Local	Total			Foreign	Local	Total		
A. Investment Costs										
1. Grants and subsidies	64,800	2,624,400	2,689,200	2	18	80.0	3,240.0	3,320.0	2	18
2. Equipment and Materials	129,965	247,901	377,865	34	2	160.5	306.1	466.5	34	2
4. Goods, services and Inputs	766,625	1,615,910	2,382,534	32	16	946.5	1,995.0	2,941.4	32	16
5. Consultancies										
a. International Consultants	1,392,650	296,303	1,688,953	82	11	1,719.3	365.8	2,085.1	82	11
b. National Consultants	-	1,690,253	1,690,253	-	11	-	2,086.7	2,086.7	-	11
Subtotal	1,392,650	1,986,556	3,379,206	41	22	1,719.3	2,452.5	4,171.9	41	22
7. Credit	810,000	4,317,705	5,127,705	16	34	1,000.0	5,330.5	6,330.5	16	34
9. Training	-	755,238	755,238	-	5	-	932.4	932.4	-	5
11. Operating costs	12,960	284,310	297,270	4	2	16.0	351.0	367.0	4	2
12. Duties & Taxes	-	269,426	269,426	-	2	-	332.6	332.6	-	2
Total BASELINE COSTS	3,176,999	12,101,445	15,278,444	21	100	3,922.2	14,940.1	18,862.3	21	100
Physical Contingencies	69,812	146,116	215,928	32	1	86.2	180.4	266.6	32	1
Price Contingencies	459,284	941,265	1,400,549	33	9	149.5	305.7	455.2	33	2
Total PROJECT COSTS	3,706,094	13,188,826	16,894,920	22	111	4,157.9	15,426.1	19,584.0	21	104
Interest During Implementation	79,850	-	79,850	100	1	98.4	-	98.4	100	1
Total Costs to be Financed	3,785,944	13,188,826	16,974,770	22	111	4,256.3	15,426.1	19,682.4	22	104

Cost table 9: Expenditure Accounts by Components – Totals including Contingencies (USD'000)

Lao PDR

Northern Smallholder Livestock Commercialization
Expenditure Accounts by Components - Base
(US\$ '000)

	Smallholder livestock producers adopt productive technology		Rural households access sustainable and scalable rural financial services				Effective project management	Physical Contingencies	
	Smallholder livestock production and marketing groups	Technology development	Financial services to SLPMG members	Networked Village Funds in NSLCP districts	Agriculture Refinancing Facility	Total		%	Amount
I. Investment Costs									
A. Grants and subsidies	3,000.0	-	-	320.0	-	-	3,320.0	-	-
B. Equipment and Materials	-	476.5	-	-	-	-	476.5	10.0	47.7
D. Goods, services and Inputs	96.0	1,280.0	30.0	1,400.0	220.0	166.0	3,192.0	1.8	56.2
E. Consultancies									
1. International Consultants	-	40.0	168.4	1,749.0	140.0	51.8	2,149.2	1.9	40.0
2. National Consultants	-	-	172.7	1,872.0	-	42.0	2,086.7	1.0	21.5
Subtotal	-	40.0	341.1	3,621.0	140.0	93.8	4,235.9	1.5	61.5
G. Credit	-	-	4,300.0	-	2,030.5	-	6,330.5	-	-
I. Training	691.1	-	129.3	-	-	112.0	932.4	10.0	93.2
K. Operating costs	-	-	-	295.0	-	80.0	375.0	2.1	8.0
Total BASELINE COSTS	3,787.1	1,796.5	4,800.4	5,636.0	2,390.5	451.8	18,862.3	1.4	266.6
Physical Contingencies	78.7	56.7	50.0	-	36.0	45.2	266.6	-	-
Price Contingencies									
Inflation									
Local	186.8	81.0	-	775.7	16.7	62.9	1,123.2	-	-
Foreign	3.9	14.2	-	107.6	13.8	10.0	149.5	-	-
Subtotal Inflation	190.8	95.2	-	883.3	30.5	72.9	1,272.7	-	-
Devaluation	-137.2	-58.7	-	-567.3	-9.8	-44.5	-817.5	-	-
Subtotal Price Contingencies	53.6	36.5	-	316.0	20.7	28.4	455.2	2.8	12.6
Total PROJECT COSTS	3,919.4	1,889.7	4,850.5	5,952.0	2,447.2	525.3	19,584.0	1.4	279.1
Taxes	22.3	30.6	36.2	144.7	76.7	57.4	368.0	5.5	20.3
Foreign Exchange	72.6	393.6	169.6	2,035.9	1,294.3	191.8	4,157.9	2.2	90.0

Cost table 10: Expenditure Accounts by Components – Base Costs (USD' 000)

Lao PDR Northern Smallholder Livestock Commercialization Expenditure Accounts by Components - Base (US\$ '000)	Smallholder livestock production and marketing groups		Rural households access sustainable and scalable rural financial services				Effective project management	Physical Contingencies	
	Technology development	Technology	Financial services to SLPMG members	Networked Village Funds in NSLCP districts	Agriculture Refinancing Facility	Total		%	Amount
I. Investment Costs									
A. Grants and subsidies	3,000.0	-	-	320.0	-	-	3,320.0	-	-
B. Equipment and Materials	-	476.5	-	-	-	-	476.5	10.0	47.7
D. Goods, services and Inputs	96.0	1,280.0	30.0	1,400.0	220.0	166.0	3,192.0	1.8	56.2
E. Consultancies									
1. International Consultants	-	40.0	168.4	1,749.0	140.0	51.8	2,149.2	1.9	40.0
2. National Consultants	-	-	172.7	1,872.0	-	42.0	2,086.7	1.0	21.5
Subtotal	-	40.0	341.1	3,621.0	140.0	93.8	4,235.9	1.5	61.5
G. Credit	-	-	4,300.0	-	2,030.5	-	6,330.5	-	-
I. Training	691.1	-	129.3	-	-	112.0	932.4	10.0	93.2
K. Operating costs	-	-	-	295.0	-	80.0	375.0	2.1	8.0
Total BASELINE COSTS	3,787.1	1,796.5	4,800.4	5,636.0	2,390.5	451.8	18,862.3	1.4	266.6
Physical Contingencies	78.7	56.7	50.0	-	36.0	45.2	266.6	-	-
Price Contingencies									
Inflation									
Local	186.8	81.0	-	775.7	16.7	62.9	1,123.2	-	-
Foreign	3.9	14.2	-	107.6	13.8	10.0	149.5	-	-
Subtotal Inflation	190.8	95.2	-	883.3	30.5	72.9	1,272.7	-	-
Devaluation	-137.2	-58.7	-	-567.3	-9.8	-44.5	-817.5	-	-
Subtotal Price Contingencies	53.6	36.5	-	316.0	20.7	28.4	455.2	2.8	12.6
Total PROJECT COSTS	3,919.4	1,889.7	4,850.5	5,952.0	2,447.2	525.3	19,584.0	1.4	279.1
Taxes	22.3	30.6	36.2	144.7	76.7	57.4	368.0	5.5	20.3
Foreign Exchange	72.6	393.6	169.6	2,035.9	1,294.3	191.8	4,157.9	2.2	90.0

Cost table 11: Programme Components by Year -- Totals Including Contingencies (USD'000)

Lao PDR

Northern Smallholder Livestock Commercialization Project

Project Components by Year -- Totals Including Contingencies

(US\$ '000)

	Totals Including Contingencies					Total
	2017	2018	2019	2020	2021	
A. Smallholder livestock producers adopt productive technology						
1. Smallholder livestock production and marketing groups	1,166.1	2,223.8	226.9	206.4	96.1	3,919.4
2. Technology development	368.4	481.7	513.2	379.4	147.0	1,889.7
Subtotal	1,534.5	2,705.5	740.2	585.7	243.1	5,809.1
B. Rural households access sustainable and scalable rural financial services						
1. Financial services to SLPMG members	4,562.6	186.4	75.1	3.3	23.1	4,850.5
2. Networked Village Funds in NSLCP districts	1,823.3	1,499.2	1,297.7	890.6	441.1	5,952.0
3. Agriculture Refinancing Facility	145.5	2,199.2	102.5	-	-	2,447.2
Subtotal	6,531.4	3,884.9	1,475.3	893.9	464.2	13,249.7
C. Effective project management	172.4	115.4	105.3	64.3	67.9	525.3
Total PROJECT COSTS	8,238.4	6,705.7	2,320.7	1,543.9	775.3	19,584.0

Cost table 12: Programme Components by Year -- Investment/Recurrent Costs (USD'000)

Lao PDR
Northern Smallholder Livestock Commercialization Project
Project Components by Year -- Investment/Recurrent Costs
(US\$ '000)

	Totals Including Contingencies					Total
	2017	2018	2019	2020	2021	
A. Smallholder livestock producers adopt productive technology						
1. Smallholder livestock production and marketing groups						
Investment Costs	1,166.1	2,223.8	226.9	206.4	96.1	3,919.4
2. Technology development						
Investment Costs	368.4	481.7	513.2	379.4	147.0	1,889.7
Subtotal	1,534.5	2,705.5	740.2	585.7	243.1	5,809.1
B. Rural households access sustainable and scalable rural financial services						
1. Financial services to SLPNG members						
Investment Costs	4,562.6	186.4	75.1	3.3	23.1	4,850.5
2. Networked Village Funds in NSLCP districts						
Investment Costs	1,823.3	1,499.2	1,297.7	890.6	441.1	5,952.0
3. Agriculture Refinancing Facility						
Investment Costs	145.5	2,199.2	102.5	-	-	2,447.2
Subtotal	6,531.4	3,884.9	1,475.3	893.9	464.2	13,249.7
C. Effective project management						
Investment Costs	172.4	115.4	105.3	64.3	67.9	525.3
Total PROJECT COSTS	8,238.4	6,705.7	2,320.7	1,543.9	775.3	19,584.0
Total Investment Costs	8,238.4	6,705.7	2,320.7	1,543.9	775.3	19,584.0
Total Recurrent Costs	-	-	-	-	-	-

Cost table 13: Expenditure Accounts by Year -- Totals Including Contingencies (USD'000)

Lao PDR

Northern Smallholder Livestock Commercialization

Expenditure Accounts by Years -- Totals Inc

(US\$ '000)

	Totals Including Contingencies					Total
	2017	2018	2019	2020	2021	
I. Investment Costs						
A. Grants and subsidies	1,039.3	2,064.0	16.0	151.1	72.2	3,342.7
B. Equipment and Materials	87.1	150.1	152.2	154.4	12.0	555.9
D. Goods, services and Inputs	1,066.4	852.2	739.7	441.6	252.1	3,352.0
E. Consultancies						
1. International Consultants	704.8	626.0	469.7	319.9	181.8	2,302.1
2. National Consultants	674.6	616.2	578.5	225.9	119.6	2,214.7
Subtotal	1,379.4	1,242.1	1,048.1	545.8	301.4	4,516.7
G. Credit	4,331.6	2,000.0	-	-	-	6,331.6
I. Training	219.6	294.4	249.8	199.3	117.8	1,080.8
K. Operating costs	114.9	102.9	115.0	51.8	19.7	404.3
Total PROJECT COSTS	8,238.4	6,705.7	2,320.7	1,543.9	775.3	19,584.0

Cost table 14: Expenditure Accounts Breakdown (USD'000)

Lao PDR

Northern Smallholder Livestock Commercialization

Expenditure Accounts Breakdown

(US\$ '000)

	Base Cost			Physical Contingencies				Price Contingencies				Total Incl. Cont.			Base Costs + Price Cont. on Base Costs	Physical Cont. Plus Price Cont. on Physical Cont.		
	Local		Total	Local		Total	Local		Total	Local		Total	Total					
	For. Exch.	(Excl. Taxes)		Duties & Taxes	For. Exch.		(Excl. Taxes)	Duties & Taxes		For. Exch.	(Excl. Taxes)			Duties & Taxes	For. Exch.	(Excl. Taxes)	Duties & Taxes	
I. Investment Costs																		
A. Grants and subsidies	80.0	3,240.0	-	3,320.0	-	-	-	-	5.7	17.0	-	22.7	85.7	3,257.0	-	3,342.7	3,342.7	-
B. Equipment and Materials	160.5	306.1	10.0	476.5	16.0	30.6	1.0	47.7	10.8	20.3	0.7	31.8	187.3	356.9	11.7	555.9	505.4	50.5
D. Goods, services and Inputs	946.5	1,995.0	250.6	3,192.0	36.5	8.4	11.2	56.2	41.8	49.1	12.9	103.8	1,024.8	2,052.5	274.7	3,352.0	3,292.9	59.1
E. Consultancies																		
1. International Consultants	1,719.3	365.8	64.0	2,149.2	32.0	1.6	6.4	40.0	90.3	20.7	1.9	112.9	1,841.6	388.1	72.3	2,302.1	2,261.0	41.1
2. National Consultants	-	2,086.7	-	2,086.7	-	21.5	-	21.5	-	106.5	-	106.5	-	2,214.7	-	2,214.7	2,192.9	21.7
Subtotal	1,719.3	2,452.5	64.0	4,235.9	32.0	23.1	6.4	61.5	90.3	127.2	1.9	219.4	1,841.6	2,602.8	72.3	4,516.7	4,453.9	62.8
G. Credit	1,000.0	5,330.5	-	6,330.5	-	-	-	-	-	1.1	-	1.1	1,000.0	5,331.6	-	6,331.6	6,331.6	-
I. Training	-	932.4	-	932.4	-	93.2	-	93.2	-	55.1	-	55.1	-	1,080.8	-	1,080.8	982.5	98.3
K. Operating costs	16.0	351.0	8.0	375.0	1.6	5.6	0.8	8.0	0.9	20.0	0.4	21.3	18.5	376.6	9.2	404.3	395.9	8.4
Total	3,922.2	14,607.4	332.6	18,862.3	86.2	160.9	19.4	266.6	149.5	289.8	15.9	455.2	4,157.9	15,058.2	368.0	19,584.0	19,304.9	279.1

Cost table 15: Components by Financiers (USD'000)

Lao PDR

Northern Smallholder Livestock Commercialization Project

Components by Financiers

(US\$ '000)

	GiZ		Beneficiaries		LDP Carry-over		ADB Loan		IFAD Loan		Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Smallholder livestock producers adopt productive technology																	
1. Smallholder livestock production and marketing groups	-	-	600	15.3	-	-	2,400	61.2	897	22.9	22	0.6	3,919	19.9	73	3,824	22
2. Technology development	-	-	-	-	-	-	396	21.0	893	47.2	601	31.8	1,890	9.6	394	1,465	31
Subtotal	-	-	600	10.3	-	-	2,796	48.1	1,790	30.8	623	10.7	5,809	29.5	466	5,290	53
B. Rural households access sustainable and scalable rural financial services																	
1. Financial services to SLPNG members	-	-	-	-	2,400	49.5	-	-	2,414	49.8	36	0.7	4,850	24.6	170	4,645	36
2. Networked Village Funds in NSLCP districts	1,850	31.1	-	-	-	-	-	-	3,957	66.5	145	2.4	5,952	30.2	2,036	3,771	145
3. Agriculture Refinancing Facility	-	-	-	-	-	-	-	-	1,370	56.0	1,077	44.0	2,447	12.4	1,294	1,076	77
Subtotal	1,850	14.0	-	-	2,400	18.1	-	-	7,742	58.4	1,258	9.5	13,250	67.3	3,500	9,492	258
C. Effective project management	-	-	-	-	-	-	-	-	468	89.1	57	10.9	525	2.7	192	276	57
Total PROJECT COSTS	1,850	9.4	600	3.1	2,400	12.3	2,796	14.3	10,000	51.1	1,938	9.9	19,584	99.5	4,158	15,058	368
Interest During Implementation	-	-	-	-	-	-	98	100.0	-	-	-	-	98	0.5	-	-	-
Total Disbursement	1,850	9.4	600	3.0	2,400	12.2	2,895	14.7	10,000	50.8	1,938	9.8	19,682	100.0	4,158	15,058	368

Cost table 16: Disbursement Accounts by Financiers (USD'000)

Lao PDR

Northern Smallholder Livestock Commercialization F

Disbursement Accounts by Financiers

(US\$ '000)

	GiZ		Beneficiaries		LDP Carry-over		ADB Loan		IFAD Loan		Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
A. Vehicles	-	-	-	-	-	-	-	-	32	100.0	-	-	32	0.2	-	32	-
B. Credit																	
1. Agriculture Refinancing Facility	-	-	-	-	-	-	-	-	1,000	50.0	1,000	50.0	2,000	10.2	1,000	1,000	-
2. NSLCP Financial Services	-	-	-	-	2,400	55.8	-	-	1,900	44.2	-	-	4,300	21.8	-	4,300	-
Subtotal	-	-	-	-	2,400	38.1	-	-	2,900	46.0	1,000	15.9	6,300	32.0	1,000	5,300	-
C. Operating Costs	-	-	-	-	-	-	-	-	395	97.7	9	2.3	404	2.1	18	377	9
D. Training	-	-	-	-	-	-	-	-	1,081	100.0	-	-	1,081	5.5	-	1,081	-
E. Goods, Services and Inputs	-	-	-	-	-	-	396	11.8	2,111	63.0	845	25.2	3,352	17.0	1,025	2,052	275
F. Consultancies	1,850	41.4	-	-	-	-	-	-	2,545	57.0	72	1.6	4,468	22.7	1,842	2,554	72
G. Equipment and Materials	-	-	-	-	-	-	-	-	544	97.9	12	2.1	556	2.8	187	357	12
H. Grants and subsidies	-	-	600	17.9	-	-	2,400	71.8	343	10.3	-	-	3,343	17.0	86	3,257	-
I. Salaries	-	-	-	-	-	-	-	-	49	100.0	-	-	49	0.2	-	49	-
Total PROJECT COSTS	1,850	9.4	600	3.1	2,400	12.3	2,796	14.3	10,000	51.1	1,938	9.9	19,584	99.5	4,158	15,058	368
Interest During Implementation	-	-	-	-	-	-	98	100.0	-	-	-	-	98	0.5	-	-	-
Total Disbursement	1,850	9.4	600	3.0	2,400	12.2	2,895	14.7	10,000	50.8	1,938	9.8	19,682	100.0	4,158	15,058	368

Cost table 17: Expenditure Accounts by Financiers (USD'000)

Lao PDR
Northern Smallholder Livestock Commercialization
Expenditure Accounts by Financiers
(US\$ '000)

	GiZ		Beneficiaries		LDP Carry-over		ADB Loan		IFAD Loan		Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs																	
A. Grants and subsidies	-	-	600	17.9	-	-	2,400	71.8	343	10.3	-	-	3,343	17.0	86	3,257	-
B. Equipment and Materials	-	-	-	-	-	-	-	-	544	97.9	12	2.1	556	2.8	187	357	12
D. Goods, services and Inputs	-	-	-	-	-	-	396	11.8	2,111	63.0	845	25.2	3,352	17.0	1,025	2,052	275
E. Consultancies																	
1. International Consultants	1,850	80.4	-	-	-	-	-	-	380	16.5	72	3.1	2,302	11.7	1,842	388	72
2. National Consultants	-	-	-	-	-	-	-	-	2,215	100.0	-	-	2,215	11.3	-	2,215	-
Subtotal	1,850	41.0	-	-	-	-	-	-	2,594	57.4	72	1.6	4,517	22.9	1,842	2,603	72
G. Credit	-	-	-	-	2,400	37.9	-	-	2,932	46.3	1,000	15.8	6,332	32.2	1,000	5,332	-
I. Training	-	-	-	-	-	-	-	-	1,081	100.0	-	-	1,081	5.5	-	1,081	-
K. Operating costs	-	-	-	-	-	-	-	-	395	97.7	9	2.3	404	2.1	18	377	9
Total PROJECT COSTS	1,850	9.4	600	3.1	2,400	12.3	2,796	14.3	10,000	51.1	1,938	9.9	19,584	99.5	4,158	15,058	368
Interest During Implementation	-	-	-	-	-	-	98	100.0	-	-	-	-	98	0.5	-	-	-
Total Disbursement	1,850	9.4	600	3.0	2,400	12.2	2,895	14.7	10,000	50.8	1,938	9.8	19,682	100.0	4,158	15,058	368

Cost table 18: Local/Foreign/Taxes by Financiers (USD'000)

Lao PDR
Northern Smallholder Livestock Commercialization
Local/Foreign/Taxes by Financiers
(US\$ '000)

	GiZ		Beneficiaries		LDP Carry-over		ADB Loan		IFAD Loan		Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Foreign	1,480	35.6	-	-	-	-	108	2.6	2,570	61.8	-0	-	4,158	21.1
II. Local (Excl. Taxes)	370	2.5	600	4.0	2,400	15.9	2,689	17.9	7,429	49.3	1,570	10.4	15,058	76.5
III. Taxes	-	-	-	-	-	-	-	-	-	-	368	100.0	368	1.9
Total Project	1,850	9.4	600	3.1	2,400	12.3	2,796	14.3	10,000	51.1	1,938	9.9	19,584	99.5
Interest During Implementation	-	-	-	-	-	-	98	100.0	-	-	-	-	98	0.5
Total Disbursement	1,850	9.4	600	3.0	2,400	12.2	2,895	14.7	10,000	50.8	1,938	9.8	19,682	100.0

Cost table 19: Disbursements by Semesters and Government Cash Flow (USD'000)

Lao PDR
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Disbursemen
(US\$ '000)

	Financing Available					Costs to be Financed						Government		
	LDP					Total	Financial Charges				Total	Cash Flow	Cumulative Cash Flow	
	GiZ Amount	Beneficiaries Amount	Carry-over Amount	ADB Loan Amount	IFAD Loan Amount		Project Costs	Interest During Implementation	Commitment Charges	Front-end fees				Government Cash Flow
1	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	245	100	1,200	456	2,008	4,009	4,119	-	-	-	4,119	-110	-110	
6	245	100	1,200	459	2,008	4,011	4,119	2	-	-	4,121	-110	-220	
7	241	200	-	850	1,443	2,734	3,353	5	-	-	3,357	-623	-843	
8	241	200	-	854	1,443	2,738	3,353	9	-	-	3,362	-623	-1,467	
9	201	-	-	70	794	1,065	1,160	13	-	-	1,173	-109	-1,575	
10	201	-	-	70	794	1,065	1,160	13	-	-	1,174	-109	-1,684	
11	157	-	-	34	508	698	772	14	-	-	786	-88	-1,772	
12	157	-	-	34	508	698	772	14	-	-	786	-88	-1,860	
13	81	-	-	34	248	363	388	14	-	-	402	-39	-1,899	
14	81	-	-	34	248	363	388	14	-	-	402	-39	-1,938	
Total	1,850	600	2,400	2,895	10,000	17,744	19,584	98	-	-	19,682	-1,938	-1,938	

Appendix 10: Economic and Financial Analysis

EFA Summary Page

Table A - Illustrative Loan Models After Financing Cash Flow

Month	Cattle Model (LAK '000)			Pig Model (LAK '000)			Goat Model (LAK '000)		
	Income	Expenses	Net Income	Income	Expenses	Net Income	Income	Expenses	Net Income
1	3,600	2,017	1,583	1,645	783	862	2,310	1,100	1,210
2	-	2,017	(2,017)	-	783	(783)	-	1,100	(1,100)
3	-	2,017	(2,017)	-	783	(783)	-	1,100	(1,100)
4	19,350	21,907	(2,557)	2,880	3,449	(569)	4,000	4,457	(457)
5	-	2,508	(2,508)	-	637	(637)	-	374	(374)
6	-	2,497	(2,497)	-	803	(803)	-	370	(370)
7	-	2,488	(2,488)	-	949	(949)	-	367	(367)
8	29,514	2,478	27,036	-	1,074	(1,074)	-	364	(364)
9	-	21,907	(21,907)	11,603	1,179	10,425	21,938	360	21,577
10	-	2,410	(2,410)	-	3,449	(3,449)	-	4,457	(4,457)
11	-	2,400	(2,400)	-	622	(622)	-	354	(354)
12	-	2,391	(2,391)	-	789	(789)	-	350	(350)
13	29,514	2,380	27,134	-	935	(935)	-	347	(347)
14	-	-	-	-	1,060	(1,060)	-	344	(344)
15	-	-	-	11,603	1,164	10,439	21,938	340	21,597
NPV @ 12.8%			12,562			9,272			34,400

Discount rate equals the upper range APB interest rate

Table B - Programme Cost and Indicators for Log Frame

Financial Services Package Total Costs (USD m): 19.6		Base costs: 18.9		PMU 1
Beneficiaries	People 49,800	Households 8,300	SPLMG + VF loans + Other MFI	
Cost per beneficiary	USD 201 x person	USD 1,205 x HH	Participation rate: 75%	
Components and Cost (USD M)		Outcomes and Indicators		
A. Strengthened smallholder and other LVC actors and infrastructure	5.81	Smallholder livestock producers adopt productive technology	60% of 5,400 beneficiary livestock farming HHs are adopting at least 5 recommended technologies (disaggregated by gender and ethnic groups) 70% of SLPMG members sell heavier live animals: pigs: 55kg (baseline 2014: 45 kg); cattle: 225kg (baseline 2014: 200 kg)	
B. Improved access to sustainable LVC credit	13.25	Financial services to NSLCP beneficiaries Networked village funds in NSLCP districts National Agriculture Refinancing Facility	20,000 rural women and men in Programme area access financial services from VFs (disaggregated by gender) 5,400 NLSCP credits are disbursed 3 Provincial NSOs established to support village funds 200 new Village Funds established in NSLCP villages Value of gross loan portfolio of ARF USD 3.5 million by Programme-end	

Assumes 6 persons per rural household

Table C – Financing Analysis Main Assumptions

Financial Parameters (selected)				
Outputs	Av. Weight gain	LAK	Inputs	Price
Cattle	65 kgs	36,000/kg LW	Cattle 3-years old	30,000/kg LW
Piglets *	47 kgs	24,000/kg LW	Piglets 6-weeks old	40,000/kg LW
Goats	20 kgs	40,000/kg LW	Goats 6-weeks old	40,000/kg LW

*Premium paid for local suckling piglets not reflected in fattened piglet price

Table D - Beneficiaries, Adoption Rates and Phasing

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6	PY 7
Incremental households							
Cattle	-	-	589	884	1,473	-	-
Pigs	-	-	393	589	982	-	-
Goats	-	-	98	147	245	-	-
Total	-	-	1,080	1,620	2,700	-	-
Cumulative households							
Cattle	-	-	589	1,473	2,945	2,945	2,945
Pigs	-	-	393	982	1,964	1,964	1,964
Goats	-	-	98	245	491	491	491
Total	-	-	1,080	2,700	5,400	5,400	5,400

Table E - Programme Economic Cash Flow (USD '000)

Programme Years (Selected)	Incremental benefits	Incremental costs	Net benefits
PY 1	-	28	(28)
PY 2	-	1,962	(1,962)
PY 3	(1,823)	2,738	(4,561)
PY 4	(3,082)	5,879	(8,961)
PY 5	(4,625)	5,453	(10,077)
PY 6	205	4,206	(4,000)
PY 7	757	2,584	(1,827)
PY 8	115	98	17
PY 9	(176)	98	(274)
PY 10	4,880	98	4,783
PY 15	11,716	98	11,618
PY 20	11,686	587	11,099
	ENPV @ 6%	USD '000	21,276
	ENPV @ 6%	LAK million	170,000
	EIRR	%	11.9%
	BCR	ratio	2.16

The economic analysis compares the Programme economic costs to the incremental economic returns

Graph F - Programme Economic Cash Flow

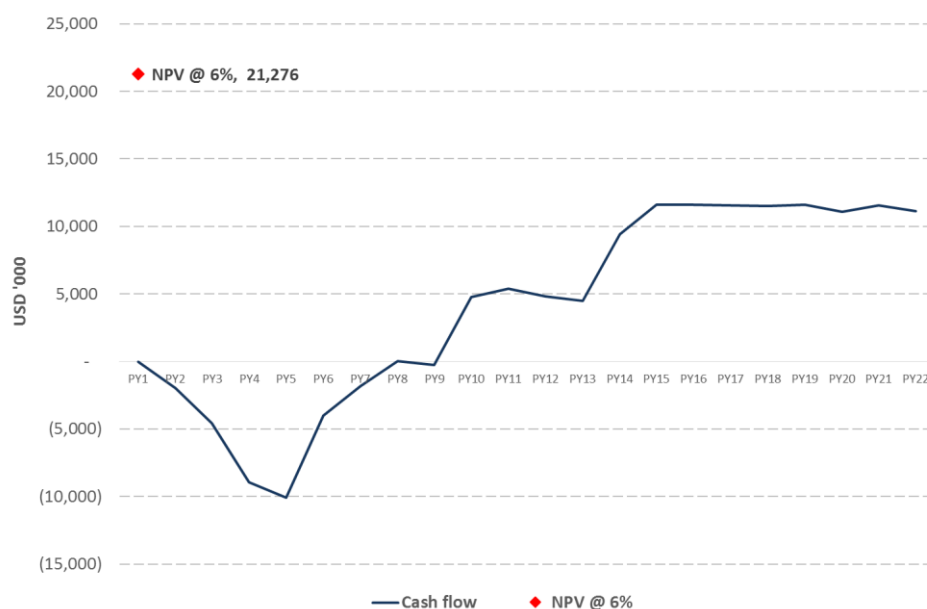


Table G - Sensitivity Analysis

Scenario			Link to Risk Matrix	EIRR	ENPV (USD '000)
Base Case					11.9%
<i>Δ% to Base Case</i>					
Programme Costs	Incr'l Benefits	Benefits delayed by			
+ 10%			Increase in the cost of inputs.	11.2%	19,438
+ 20%				10.5%	17,601
	- 20%		Reduced producer prices / demand. Group infrastructure investments are not directed to areas of highest production need. Technical coordination is not responsive to the grassroots level needs.	10.2%	13,346
	- 40%			8.0%	5,416
+ 10%	- 10%		Combinations of the above	10.4%	15,473
+ 20%	- 20%			8.8%	9,671
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation.	11.1%	19,031
		2 years		10.4%	16,914
		3 years		9.8%	14,917
Base case	- 20%	1 year	Inadequate skills base amongst local service providers leads to delays and additional costs. NSO and village funds are slow to develop and/or mismanaged leading to inequitable treatment and reduced incentives for farmer groups and reduced access to credit.	8.9%	9,713
		2 years		8.3%	8,019
		3 years		7.8%	6,421
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	7.7%	6,182
Switching Values ¹					
Costs		116%		6.0%	-
Benefits		-54%		6.0%	-

¹ 1 Percent change in cost and/or benefit streams to obtain an EIRR of 6 percent, i.e., economic viability threshold.

FINANCIAL ANALYSIS

A. Objective and scope

11. The ADB appraisal provided details of the financial returns to smallholder livestock production. The practice of livestock fattening was assumed to be common among members of the livestock production groups using the former LDP production method. This form of production was therefore taken to represent the “without Programme” scenario while the NSLCP system reflected the “with” Programme. In the NSLCP system: (i) more animals are fattened per cycle and greater use is made of nutrient-rich concentrate feed for pigs and cattle; and (ii) the use of livestock management labour for goats is more intensive. The ADB appraisal found that each of the production models were financially viable.⁷⁸ The NSCLP-RFSP design mission has subsequently reviewed, and where necessary updated the NSLCP base production models and the financial and economic analytical framework.⁷⁹ The financial analysis of the Financial Services Programme therefore extends the ADB appraisal work by examining the impact of financing on three illustrative NSLCP production models. The core question addressed, is whether the production models are financially viable in the face of the investment and operating costs required for small commercial operations? Further, can this be achieved in the face of market based interest rates and amortised loans required to ensure a sustainable rural financial sector?

12. The NSLCP-RFSP financial analysis is based on prices and costs collected by the Detailed Design Mission in February 2016, and verified by the Final Design Mission in August 2016.

13. In addition to the description and analysis of the livestock models outlined above, this section also presents the performance of both existing and proposed network service organisations (NSO).

C. Illustrative loan models

14. Three financing models are developed based on the NSCLP models identified in the 2014 ADB appraisal report. The models illustrate the returns for cattle, pig and goat fattening enterprises. Each model identifies the key investment and operating costs for the purchase and husbandry associated with raising the particular animals for the local commercial market. Each model assumes infrastructure and forage development in the first three months, and production in the form of two fattening cycles over the following 12 months. Cashflows are modelled on a monthly time step over the operational period.

15. For each fattening model two cashflows are developed. The first, the financial budget, sets out the revenue and costs (both investment and operating) over the fattening operation. The modelling displays and is driven by, the underlying physical and financial assumptions. Special attention is paid to the feeding regime to ensure the expected weight gains are achieved. The second cash flow analyses the introduction of financing via the grants to SLPMG group households and loans to be promoted by the Programme.

16. The non-livestock investment costs (animal stalls, water systems, fencing and forage establishment) are assumed to be part financed by grants available to SLPMG households under Output 1. The grants are targeted at participating households to facilitate the adoption of the requisite technologies for smallholder commercial livestock activities. Grants however, would only be provided against an approved work plan and budget developed by the household. The beneficiary household would cover 30% of the total cost in-kind for related materials and equipment.⁸⁰

17. The loans are charged at the equivalent of the Agriculture Promotion Bank's (APB) upper commercial rate of 12.8% per annum with the loan amount being for 100% of the cost of the livestock purchase. The loan assumes the household would repay principal and interest on a monthly basis with the loan fully repaid at the time of the second fattening round sale. Indicators developed from the before, and after financing cash flows are: net income, net present value, the household's own cash contribution and the returns to family labour day.

⁷⁸ Further details of the ADB's appraisal can be found the NSLCP FEA analysis in the project file.

⁷⁹ In the design mission's view, the revised ADB FEA is a robust and consequently the mission has not sought to replicate the analysis. A copy of the revised ADB FEA is available in the project file.

⁸⁰ For the purposes of modelling it is assumed the USD 8,000 per group at 18 household per group equates to LAK 3.6 million per household. The grant component is therefore the lesser of 30% of the costs and LAK 3.6 million.

18. These indicators are intended to examine: (i) if livestock production is viable with market-based interest rates; (ii) if the residual financing required from the household reasonable; and, (iii) are reasonable returns to labour generated? The first of these is important from the perspective of Output 3, covering the establishment of sustainable financial services. The second is crucial (in the setting described above) as the loan does not cover operational costs. The final question is key to attracting interest and investment in commercial livestock production to supply the increasing domestic and export demand for livestock products.

19. **Cattle fattening model** The NSCLP cattle model examines the financial viability of a small scale fattening enterprise involving the purchase of three 3-year-old cattle for fattening over a five-month period and a subsequent reinvestment in a second fattening cycle. The infrastructure investments required comprise cattle stalls and a watering system plus the establishment and fencing of forage crops. It is assumed that this development takes place in the initial three months thereby qualifying the household to a NSCLP-RFSP loan. Three-year-old male cattle are expected to be purchased at 225 kg liveweight (LW) and sold at a target weight of 275 kg LW at around three and half years of age. The implied weight gain per animal for this regime is 420 grams LW per day. A daily dry matter feed intake of 3% dry matter per kilogram of body weight is assumed. This results in an average feed conversion ratio over the period of 18.5. Mortality over the period is allowed for through a reduction in liveweight gained. An annual equivalent loss of 8% is applied.

20. The target weight gain is achieved through a ration comprising forage grasses and legumes⁸¹ supplemented with maize, rice bran, sun dried cassava and commercial protein concentrates. Mineral blocks would also be included. The animals would be housed, fed and watered in covered cattle stalls. A provision for repairs and maintenance of the facilities is included in the running costs. During the fattening period cattle would be vaccinated and treated for diseases and other preventable conditions.⁸² It is assumed that the 3 year-old cattle would be purchased at the commencement of the fattening period for LAK 35,000 per kg LW. A typical 225 kg LW three-year-old would cost around LAK 6.5 million (USD 800). A LW price premium of 20% for healthy fattened cattle is expected, taking the sale price after five months to LAK 36,000 per kg LW. A fattened beast would therefore be expected to sell for around LAK 10 million (USD 1,250).

21. Cattle stalls, watering system, fencing and forage establishment are financed through a grant (70% of the value of the investments or LAK 4.24 million in this case) and household contribution (30% or LAK 1.82 million) in the form of labour and in-kind contributions. A loan is taken for LAK 22.5 million for the purchase of three 3-year-old males over 12 months at the equivalent of 12.8% interest per annum.

22. The results for the cattle model, before and after, financing are show in Table 1. The modelling indicates that the enterprise is viable before financing, however this assumes the household is able to manage the cash inputs indicated. In this case, LAK 27 million (USD 3,350). While off farm income can represent a substantial portion of the household income, the availability of this level of investment is unlikely. The viability of the enterprise improves considerably with financing as shown by the NPV and returns to labour. The market-based interest rate applied clearly being affordable in this instance. Returns to farm family labour indicate the value of this enterprise to the household and as a business proposition to other households. Most significantly, financing improves the cash flow and so reduces the impost on the household to finance major investments, such as the livestock purchase in this instance.

⁸¹ . Species will vary depending on site, but will generally include, inter-alia: Grasses:

- Mulato II (*B. brizantha* x *B. ruziziensis*) and drought tolerant lines of *Megathyrus maximus* for most rainfall areas; the Atherton sterile ecotype of *Setaria sphacelata* for higher rainfall areas, and *Paspalum atratum* for seasonally wet areas. Some Napier types will be included for conspicuous early results, but will gradually be de-emphasised.

Legumes could include:

- Leucaena (cv Tarramba or Cunningham) established in hedgerows and Gliricidia established by cuttings.
- Sunn hemp, Pigeon pea, lablab, cowpea, and velvet bean (*Mucuna pruriens*),
- *Desmanthus spp.*, with the selection based on rainfall
- *Stylosanthes scabra*, *S. guianensis*, *S. seabrana* and *S. hamata*, with the species depending on soil type; Wynn Cassia, Aztec atro; forage peanut (*Arachis pinto*), with the species determined by rainfall.

⁸² Cattle would be vaccinated against haemorrhagic septicaemia, blackquarter, anthrax and food and mouth disease. Treatments would also be expected against liver fluke and gastrointestinal helminthes (*Toxocara vitulorum*)

Table 1 – Indicative Returns and impact of financing - Cattle fattening model

Indicator		Before financing	After financing	% Change
Net income	LAK '000	9,900	12,600	27%
NPV @ 12.8% p.a.	LAK '000	7,000	10,400	49%
Benefit/Cost Ratio		1.15 x	1.16 x	
Return to family labour day	LAK '000	90	110	22%
	USD	10.90	13.80	27%
Own contribution before financing	LAK '000	27,100	14,600	-46%
	USD	3,350	1,800	-46%

23. **Pig fattening model** The NSCLP pig model examines the financial viability of a small scale fattening enterprise involving the purchase of nine 6 week old piglets for fattening over a six-month period and a subsequent reinvestment in a second cycle. The infrastructure investments required comprise pig stalls and a watering system plus the establishment and fencing of forage crops. As with the cattle model it is assumed that this development takes place in the initial three months thereby qualifying the household for a NSCLP-RFSP loan. The piglets are expected to be purchased at 8 kg LW and sold at a target weight of 55 kg LW at around seven to eight months old. The implied weight gain per animal for this regime is around 310 grams LW per day. A daily dry matter intake of 3% dry matter per kilogram of body weight is assumed. This results in an average feed conversion ratio over the period of 3.5. Mortality over the period is allowed for through a reduction in liveweight gained. An annual equivalent loss of 8% is applied.

24. The target weight gain is achieved through a ration comprising legume forage, maize, soya bean meal and sun dried cassava. The pigs would be housed, fed and watered in covered stalls. A provision for repairs and maintenance of the facilities is included in the running costs. During the fattening period piglets would be vaccinated and treated for diseases and other preventable conditions.⁸³ It is assumed that the 6 week piglets would be purchased for around LAK 40,000 per kg LW. A typical 5 kg LW piglet therefore costing around LAK 320,000 (USD 40). The sale price expected after six months fattening would LAK 24,000 per kg LW. A piglet fattened to 55 kg would therefore be expected to sell for around LAK 1.32 million (USD 165). The reduction in the unit value for the older piglet is due to the premium that is placed on suckling piglets.

25. Pig pens, watering system, fencing and forage establishment are financed through a grant (70% of the value of the investments or LAK 1.65 million in this case) and household contribution (30% or LAK 0.71 million) in the form of labour and in-kind contributions. A loan is taken for LAK 2.88 million for the purchase of piglets over 12 months at the equivalent of 12.8% interest per annum.

26. The results for the pig model, before and after financing, are show in Table 2. As with the cattle enterprise, the modelling indicates that the pig fattening enterprise is viable before financing. Again, however, this assumes the household is able to manage the cash inputs necessary to establish the enterprise, in this case LAK 8 million (USD 980). After including financing with the grant and a loan the funds required by the household reduce by 41% to LAK 4.7 million (USD 580). Financing also improves the net revenues and returns to labour, further enhancing the enterprise as an attractive proposition. A loan with interest at a market-based rate is shown as a viable proposition.

⁸³ Pigs would be vaccinated against Classical Swine Fever, pasteurellosis, and swine influenza. Treatment would also be expected against diarrhoea.

Table 2 – Indicative returns and impact of financing - Pig fattening model

Indicator		Before financing	After financing	% Change
Net income	LAK '000	7,800	9,300	19%
NPV @ 12.8% p.a.	LAK '000	6,300	7,900	25%
Benefit/Cost Ratio	Ratio	3.26 x	1.46 x	
Return to family labour day	LAK '000	60	70	17%
	USD	7.10	8.50	20%
Own contribution before financing	LAK '000	8,000	4,700	-41%
	USD	980	580	-41%

27. **Goat fattening model** The NSCLP goat model examines the financial viability of a small scale fattening enterprise involving the purchase of twenty 7 month old goats for fattening over a six-month period and a subsequent reinvestment in a second cycle. The infrastructure investments required comprise goat pens and a watering system plus the establishment and fencing of forage crops. It is assumed that this development takes place in the initial three months thereby qualifying the household for a NSCLP-RFSP loan. The young goats are expected to be purchased at 5 kg LW and sold at a target weight of 25 kg LW at around thirteen months old. The implied weight gain per animal for this regime is around 133 grams LW per day. A daily dry matter intake of 4% dry matter per kilogram of body weight is assumed. This results in an average feed conversion ratio over the period of 5. Mortality over the period is allowed for through a reduction in liveweight gained. An annual equivalent loss of 9% is applied.

28. The target weight gain is achieved through a ration comprising legume forage and Napier grass. The goats would be housed during the fattening period and fed cut and carry fodder. A provision for repairs and maintenance of the facilities is included in the running costs. During the fattening period the goats would be vaccinated and treated for diseases and other preventable conditions.⁸⁴

29. It is assumed that the 6 week kids would be purchased for around LAK 40,000 per kg LW. A typical 20 kg LW piglet therefore costing around LAK 200,000 (USD 25). A premium of 10% for healthy fattened goats is expected, taking the sale price after six months to LAK 45,000 per kg LW. A goat fattened to 25 kg would therefore be expected to sell for around LAK 1.13 million (USD 140).

30. The goat pens, fencing and forage establishment is financed through a grant (70% of the value of the investments or LAK 2.31 million in this case) and household contribution (30% or LAK 0.99 million) in the form of labour and in-kind contributions. A loan is taken for LAK 2.88 million (USD 500) over 12 months at the equivalent of 12.8% interest per annum for the initial purchase of the kid goats.

31. The results for the goat model, before and after, financing are show in Table 3. As with the cattle and pig fattening enterprises the modelling indicates that the goat fattening enterprise is viable before financing. This would, however, require a household cash contribution of LAK 7.4 million (USD 920). After including financing with the grant and a loan, the household cash contribution beyond the financing acquired reduces by 61% to LAK 2.9 million (USD 360). Financing also improves the net revenues and returns to labour, making such an enterprise an attractive proposition. A loan with interest at a market-based rate is shown as a viable proposition.

⁸⁴ Goats would be vaccinated against Peste de Petit Ruminant. Treatment would also be expected against nematodes, coccidiosis, and anaplasmosis.

Table 3 – Indicative Returns and impact of financing – Goat fattening model

Indicator		Before financing	After financing	% Change
Net income	LAK '000	32,300	34,400	7%
NPV @ 12.8% p.a.	LAK '000	28,000	30,300	8%
Benefit/Cost Ratio	ratio	3.56 x	3.05 x	
Return to family labour day	LAK '000	240	250	4%
	USD	29.60	31.50	6%
Own contribution before financing	LAK '000	7,400	2,900	-61%
	USD	920	360	-61%

32. **Conclusion** The analysis indicates that production models are able to service a market-based rate of 12.8% per annum. Sensitivity at 24% interest rate – equivalent to some commercial banks – indicates that all enterprises remain viable. The enterprises are an attractive proposition with the financing available as the threshold in terms of the households' own contributions are lessened and cash flows evened out. Returns per family labour day with financing are best for goats LAK 253,000 (USD 31) and least for pig fattening at LAK 70,000 (USD 9). These rates nevertheless are significant compared to the current income rates.

D. Network Service Organisation

33. The GIZ and the BoL have developed a systematic approach to widen and strengthen the Village Fund (VF also called Village Bank) networks in Lao PDR (refer to Appendix 1). This approach is based on the establishment of 2nd tier support organisations called Network Support Organisations (NSO) in the provinces. The GIZ AFP programme sets up and supports VFs. The VFs established to date are totally savings-based without any initial cash/grant injection. GIZ only provides basic equipment and focusses on technical support.

34. The model developed involves NSOs charging the VFs for their management support services (4% of managed deposits) and providing liquidity management services, taking excess liquidity as deposits and lending the funds on at a margin to VFs that need additional lending capital for their operations. The NSOs have an exemption from the BoL to take deposits from their member VFs. The objective of the NSOs is to become sustainable in around 4-5 years by serving a minimum of 40-50 VFs, and continue on a permanent basis their operations as a management agent and an "apex bank" for their member VFs. The role of the NSOs under Output 4 Financial Services to NSCLP Beneficiaries is described in detail in Appendix 4.

35. **Performance to date** The purpose of this section is to provide some insights into the performance of the NSOs established to date to support the use of this model. Details of a range of general and financial indicators for each of the seven established NSOs are provided in Appendix 10, Annex 1. Some key performance indicators are summarised in Table 4 below.

36. Overall the indicators below reveal robust positions on all key financial indicators confirming the model is suitable for the establishment of sustainable rural financial services under Output 4. Of particular note is the 3% portfolio at risk for the NSOs as a group, conforming to BOL standard as well as the high level of operational sustainability.

Table 4 – Summary NSO performance indicators – December 2015

Indicator	Unit	All NSOs	Lowest/NSO	Highest/NSO
Number of village banks	Number	446	45	133
Wholesale loans	Number	80	6	44
Wholesale loans overdue >30 days	%	0%	0%	0%
Retail loans	Number	380	3	216
Retail loans overdue >30 days	%	5%	0%	35%
Total loans	Number	460	23	222
Portfolio at risk	%	3%	0%	7%
Total assets	LAK m	13,134	1,015	3,775
	USD m	1.64	0.13	0.47
Ratio of internal resources ¹	%	80%	68%	100%
Operational self-sufficiency ²	%	97%	29%	117%

¹ (Members savings + charter capital + reserves+ retained earning prev years + profit/loss) / Total assets

² (Gross operating income / (Gross operating expenses + loan loss reserve)

37. **New NSO projected performance.** A projection for a new NSO, typical of the model to be applied under NSCLP-RFSP is presented to illustrate the likely development of the VB base and performance, as well as the financial implications for the NSO. The key parameters in the development projection is shown in Table 5 below. The related income statement is provided in Annex 1 Table 3.

38. Key points to note on the assumptions are:

- i) An initial base of 15 village banks growing to 53 by year 7 (two years after Programme completion)
- ii) Interest paid on VB savings 3.5% per annum
- iii) Target number of (wholesale) loans by 2023 to village banks - 11 per annum
- iv) Targeted number of retail loans by 2023 - 30 per annum
- v) Total portfolio by 2023 of LAK 1,500 million (USD 187,500)
- vi) Portfolio at risk targeted for 3%

39. The projected income statement (see Appendix 10, Annex 1 Table 3) indicates self-sufficiency in the 6th year of operation, however current experience suggests self-sufficiency around the 4th year of operations.

Table 5 – New NSO Projection Assumptions - 2017 to 2013

	2017	2018	2019	2020	2021	2022	2023
Interest							
Interest rate on saving	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Interest rate on 3-months term deposits	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Interest rate on 6-months term deposits	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Interest rate on 12-months term deposits	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
VB fees							
Total of New VB	15	20	10	2	2	2	2
Total of VB	15	35	45	47	49	51	53
Total Savings Amount VB	450,000,000	945,000,000	1,512,000,000	2,116,800,000	2,751,840,000	3,439,800,000	3,955,770,000
Growth rate		110%	60%	40%	30%	25%	15%
Total Loan Outstanding VB	375,000,000	1,125,000,000	3,150,000,000	7,560,000,000	9,828,000,000	12,285,000,000	14,127,750,000
Growth rate		200.00%	180.00%	140.00%	30.00%	25.00%	15.00%
Average of Loan Outstanding per VB	25,000,000	32,142,857	70,000,000	160,851,064	200,571,429	240,882,353	266,561,321
VB fees (%)	5%	5%	5%	4%	4%	4%	4%
Total of VB fees	9,375,000	32,250,000	91,125,000	194,600,000	319,760,000	405,860,000	487,655,000
Deposits of VB in the NSO							
Interest Rate on VB Savings (%)	0.00%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
Deposits of VB in the NSO		-180,000,000	-1,638,000,000	-5,443,200,000	-7,076,160,000	-8,845,200,000	-10,171,980,000
Total Portfolio							
Total Portfolio	0	300,000,000	600,000,000	800,000,000	1,200,000,000	1,400,000,000	1,500,000,000
Loan to deposit ratio	-	(166.67%)	(36.63%)	(14.70%)	(16.96%)	(15.83%)	(14.75%)
WSL / Total Portfolio	70%	70%	70%	70%	70%	70%	70%
RTL / Total Portfolio	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Wholesale Loans to VBs (WSL)							
Total WSL Outstanding	0	210,000,000	420,000,000	560,000,000	840,000,000	980,000,000	1,050,000,000
Number of WSL		2	4	6	8	10	11

	2017	2018	2019	2020	2021	2022	2023
Average of WSL Outstanding	0	105,000,000	105,000,000	93,333,333	105,000,000	98,000,000	95,454,545
Interest Rate on WSL per Month (%)	2.00%	2.00%	2.00%	1.80%	1.80%	1.50%	1.50%
Fees on WSL (1%)	0	2,100,000	4,200,000	5,600,000	8,400,000	9,800,000	10,500,000
Maturity (number of months)	12	12	12	12	13	14	15
PAR (%)	0.00%	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Income on WSL	0	25,200,000	73,332,000	102,664,800	158,886,000	185,367,000	221,523,750
Loan Loss Provision Ratio on WSL (%)	0	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Loan Loss Provision on WSL (expense)	0	0	8,400,000	11,200,000	16,800,000	19,600,000	21,000,000
WSL Write-offs	0	0	0	0	0	0	0
Retail Loans (RTL)							
Total RTL Outstanding	0	90,000,000	180,000,000	240,000,000	360,000,000	420,000,000	450,000,000
Number of RTL	0	9	18	16	24	28	30
Average of RTL Outstanding	0	10,000,000	10,000,000	15,000,000	15,000,000	15,000,000	15,000,000
Fees on RTL / Clients (1% of total loan amount)	-	900,000	1,800,000	2,400,000	3,600,000	4,200,000	4,500,000
Interest on RTL per Month (%)	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Maturity (number of months)	0	12	12	12	12	12	12
PAR (%)	0.0%	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Interests Income on RTL	0	16,200,000	47,142,000	73,332,000	104,760,000	136,188,000	151,902,000
Loan Loss Provision Ratio on RTL (%)	0%	0%	3%	3%	3%	3%	3%
Loan Loss Provision on RTL (expense)		0	5,400,000	7,200,000	10,800,000	12,600,000	13,500,000
RTL Write-offs	0	0	0	0	0	0	0

Source: GIZ / BoL Access to Finance for the Poor (AFP) programme

ECONOMIC ANALYSIS

A. Objectives and methodology

40. The objective of the economic analysis is to evaluate the expected contribution of the proposed Programme to the economic development of the Programme districts and economy at large. The purpose of such analysis is to determine whether the economic benefits sufficiently justify the use of the Programme resources. The analysis includes all incremental costs and incremental benefits that are quantifiable and associated with Programme investments. The economic analysis undertaken by the ADB at appraisal has been reviewed and updated by the IFAD mission to take into consideration the latest information and design of the financial services programme.

41. **Target population and expected benefits.** In each district, the Programme would work with existing livestock production groups (LPGs), established by the LDP Project. The LPGs would be supported to absorb new member households and transform into smallholder livestock production and marketing groups (SLPMGs). New SLPMGs would be formed where there are no existing LPGs. The Programme aims to work with a total of 300 SLPMGs in the 12 districts, extending the livestock production and marketing support to at least 5,400 households⁸⁵ and their estimated 32,400 household member. Over time, membership is likely to grow beyond the targets as SLPMGs become successful in marketing of livestock following market demand specifications. Successful examples would be showcased to scale out market-oriented livestock production to farmers outside the immediate Programme area.

42. Access to rural financial services through VFs will be improved for about 20,000 households, including households benefiting from the SLPMG support. Current evidence from the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) VF support project suggests that at least 30 percent of VF lending to members will finance agriculture production investments. The operations of the ARF (Output 5), which will be capitalised with Programme and Output 3 livestock credit line funds following the first round of funding, will provide refinancing to approved banks, MFIs and VFs, initially for lending in the project area, but, ultimately, at national level. By Programme-end, the ARF will be capitalised with at least USD 6.3 million.

43. The initial SLPMG members will be from relatively more affluent and/or entrepreneurial households. The Programme will therefore need to tailor its overall technical and rural financial service support to ensure inclusion of marginalized and poor villagers in the Programme activities through the VFs. Further, the LDP demonstrated the important role that women and ethnic groups have in the development of Lao PDR livestock husbandry, and the NSLCP will further strengthen these groups through intensive training programmes (Output 1).

44. **Benefits.** It is estimated that overall the Programme would include a minimum of 200 villages and 20,000 poor smallholder households through access to livestock production technology, financial services and rural infrastructure. Direct benefits are assumed from the SPLMG loans to 5,400 households as well as the 2,525 village fund based agricultural loans. Group infrastructure investments (e.g. livestock yards, loading races, water supplies) would likely benefit an additional 10,000 households in the SLPMG communities. These impacts have not been quantified in the economic model but are likely to be substantial.

45. The post-Programme benefit resulting from the successful establishment of the planned nationally implemented ARF could be much larger. In Programme Districts, villages and households not directly targeted by the NSLCP would benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district. The NSLCP would be implemented over a period of five years.

46. **Incremental economic costs.** The costs are based on the full NSCLP project costing with the elimination of the value of the credit line. Other costs have been adjusted to economic terms and taxes, duties and price contingencies removed. The incremental economic costs included both investment and recurrent cost.

⁸⁵ The modelling assumes 18 members per group.

B. Cost Benefit Analysis

47. **Quantified benefits** The quantified benefits are based on the ADB appraisal economic model updated and adapted to the transition to a more sustainable rural financial service model. The quantified benefits comprise three incremental economic cashflows deriving from loans to: (i) the 5,400 households comprising the SPLMG membership; (ii) the estimated 4,050 households through the village fund /NSO leverage finance programme focused on livestock; and (iii) the 1,640 households via the ARF lending to other MFIs. The loans to other MFIs via the ARF would be targeted to agriculture and agribusiness activities. The livestock production models are deployed directly or as a proxy for these three categories of loans. Table 6 presents these loan categories, their relationship to the logical framework and economic analysis, as well as the derivation of the estimate of the total number of beneficiaries. The two categories of loans that are not quantified in the economic analysis are also indicated.

Table 6 – Loan Category Summary

Category	Number	Logical Framework	Economic analysis
Financial services to group members			
6. SPLMG loans ^{la}	5,400	Output 1 and 3	Quantified
Direct VF loans and ARF leveraged loans			
7. Village fund agricultural loans ^{lb}	4,050	Outputs 4 and 5	Quantified
8. Village fund non-agricultural loans ^{lc}	2,310	Outputs 4 and 5	Unquantified
ARF – Non-NSLCP NSO loans			
9. Agribusiness loans ^{ld}	40	Output 5	Unquantified
10. Other MFI loans for agricultural development ^{le}	1,640	Output 5	Quantified
Key Indicators:			
Total quantified loans (1 + 2 + 5)	11,100		
Total loans at 75% success rate	8,300		
Number of beneficiaries ^{lf}	49,800		

^{la} 300 groups with 18 members per group.

^{lb} Based on 25% of value of the new NSO new savings and NSO leveraged loans (via the ARF). Leveraged amount equivalent to 25% of the combined: pre-programme savings; new VF savings; and, Luang Namtha NSO savings. Returns based on SPLMG livestock models. Loans assumed to be re-circulated every two years.

^{lc} Based on 75% of the value of new NSO's savings.

^{ld} Half of the balance of available funds following NSO leverage loans. Each loan assumed at USD 50,000.

^{le} Half of the balance of available funds following NSO leverage loans. Each loan assumed at LAK 10 million targeted at agriculture and agribusiness. Returns based on SPLMG livestock models.

^{lf} Estimated number of successful loan households x 6 persons per household. This is recognised as an upper limit as there is some potential for a household to take both a SPLMG and a VF loan. SPLMG households are expected to be self-sustaining following their first loan so this considered, the overlap may not be that significant

48. The assumed SPLMG loan uptake in incremental and cumulative terms across the three production models is shown in Table 7.

Table 7 – SPLMG Household Participation Assumptions

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6	PY 7
Incremental households							
Cattle	-	-	589	884	1,473	-	-
Pigs	-	-	393	589	982	-	-
Goats	-	-	98	147	245	-	-
Total	-	-	1,080	1,620	2,700	-	-
Cumulative households							
Cattle	-	-	589	1,473	2,945	2,945	2,945
Pigs	-	-	393	982	1,964	1,964	1,964
Goats	-	-	98	245	491	491	491
Total	-	-	1,080	2,700	5,400	5,400	5,400

49. The entry of each SPLMG household into the Programme is represented in the cashflow by the incremental net benefit stream of the related production model. The VF and other MFI households are introduced four years after the SPLMG loans and assume two rounds of lending (refer to the descriptions of Outputs 4 and 5, Appendix 2).

50. **Unquantified benefits.** A range of unquantified benefits have been identified. The NSLCP **slaughterhouses and wet market** interventions would bring sector benefits through improved food safety, public health, and urban environment, through the associated development of institutional capacity for regulatory enforcement and through the proposed action to address a market failure to supply meat processed from livestock in accordance with hazard analysis and critical control points standards. A long-term impact would be the general availability of market-supplied butcher's meat processed according to food safety, public health, and environmental standards.

51. The IFAD Programme, working in partnership with the BoL and GIZ, intends to support the development of at least 200 village funds. These funds would provide an avenue to expand the impact of the roll out of the financing of livestock loans to 300 SPLMGs comprising the immediate target group of 5,400 households. These village funds would in addition be a source of finance to many more households. It is estimated that village funds supported by the NSOs in 12 Programme districts would increase and diversify farmer access to financial services to around 20,000 households. This is a substantial but unquantified benefit of the NSLCP-FSP (refer to Table 6 for an indication as to the type and scale of these services)

52. A final source of benefit not included in the cash flow is strengthened sector institutional capacity for management of livestock and MFI and NSO development.

53. **Incremental Programme costs.** The total costs of the Programme are represented by the economic costs of the NSCLP. Economic costs of the Programme investments are net of duties, taxes and price contingencies. Ongoing recurrent costs are included for the operation of community infrastructure, abattoir, slaughterhouse, meat processing facility, wet market and equipment and vehicles as appropriate.

C. Programme economic viability

54. Three indicators have been used to assess the overall performance of the Programme. These are (i) the EIRR, (ii) the ENPV and the benefit cost ratio (BCR). These were estimated using cash flow of the incremental benefit and cost streams. The overall NSLCP-RFSP **EIRR is 11.9 per cent** above the current estimate of the 6 per cent social discount rate in Lao PDR.⁸⁶ The estimated **ENPV at a 6 per cent discount rate is LAK 172,332 million (USD 21.3 million)**. The **BCR of 2.16** indicating a return of approximately 2.16 dollars for every dollar invested. These results indicate that the Programme investments yield a positive rate of return and meet the threshold criteria⁸⁷.

55. The main identified risks that may affect the economic outcome of the Programme area are shown in Table 8. A sensitivity analysis has been conducted to assess the potential impact of these risks resulting: in (a) reduced benefits; (b) increased costs; and/or (c) delayed benefits (see Table 8).

⁸⁶ A social discount rate of 6% is assumed consistent with recent WB estimates. Source: World Bank Lao PDR Development Report 2010 Natural Resource Management for Sustainable Development, Background Paper, Wealth and Sustainability. http://siteresources.worldbank.org/LAOPRDEXTN/Resources/293683-1301084874098/LDR2010_Wealth_and_Sustainability.pdf Accessed 11.10.15

⁸⁷ EIRR > social discount rate; benefit cost ratio > 1; positive economic NPV.

Table 8 – Overview of Main Programme Risks affecting Programme Economic Outcome

Risk category	Risk	Likelihood/severity	Potential impact reflected in sensitivity analysis		
			Reduced benefits	Increased costs	Delayed benefits
Economy and Market Risks	External shocks to macro economy.	M/H	X	X	X
	Increase cost of inputs.	L/H		X	
	Reduced producer prices.	L/H	X		
	Reduced demand.	L/H	X		
Institutional Risks	Community infrastructure investments are not directed to areas of highest nutritional vulnerability.	M/M	X		
	Technical coordination is not responsive to the grassroots level needs.	L/H	X		
	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation	M/M			X
	Smallholder livestock producers are too poor to save and borrow in village funds.	M/M	X		X
	Inadequate skills base amongst local service providers leads to delays and reduced benefits.	H/H	X		X
	The formal banks and registered MFIs are not interested in rural expansion, even with the support of cheaper refinancing capital.	M/M	X		X
	NSLCP livestock credit would face the same type of problems in credit delivery and loan recovery as the previous, largely unsuccessful LDP credit operation.	M/M	X		X
Climate Risks	Climate-change and disaster impacts.	M/H	X	X	X

56. An increase in programme costs by 10 per cent would reduce the EIRR to 11.2 per cent. A one-year delay in benefits reduces the EIRR to 11.1 per cent and a two-year delay to 10.4 per cent. The combination of a 20 per cent cost increase, and 20 per cent benefit decrease and a 2 year delay reduces the EIRR to around the 7.7 per cent indicating the investment is able to withstand such a combination of adverse eventualities. The switching values show that the programme would remain economically viable if benefits decreased by 54 per cent or programme costs increased by 116 per cent. Table 9 below provides an overview of the various scenarios of the sensitivity analysis. Based on these results and recalling the non-quantified benefits (see above) that are also generated it is fair to conclude that the investment is worthwhile.

Table 9 – NSLCP Economic Model Sensitivity Analysis

Scenario			Link to Risk Matrix	EIRR	ENPV (USD '000)
Base Case					11.9%
<i>Δ% to Base Case</i>					
Programme Costs	Incr'l Benefits	Benefits delayed by			
+ 10%			Increase in the cost of inputs.	11.2%	19,438
+ 20%				10.5%	17,601
	- 20%		Reduced producer prices / demand. Group infrastructure investments are not directed to areas of highest production need. Technical coordination is not responsive to the grassroots level needs.	10.2%	13,346
	- 40%			8.0%	5,416
+ 10%	- 10%		Combinations of the above	10.4%	15,473
+ 20%	- 20%			8.8%	9,671
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation.	11.1%	19,031
		2 years		10.4%	16,914
		3 years		9.8%	14,917
Base case	- 20%	1 year	Inadequate skills base amongst local service providers leads to delays and additional costs. NSO and village funds are slow to develop and/or mismanaged leading to inequitable treatment and reduced incentives for farmer groups and reduced access to credit.	8.9%	9,713
		2 years		8.3%	8,019
		3 years		7.8%	6,421
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	7.7%	6,182
Switching Values ¹					
Costs		116%		6.0%	-
Benefits		-54%		6.0%	-

¹ Percent change in cost and/or benefit streams to obtain an EIRR of 6 percent, i.e., economic viability threshold.

Annex 1

Tables

1. Prices and production parameters
2. Existing NSO Past Performance
3. New NSO – Income statement

The above outputs and associated models are provided in the Programme File.

Annex 1, Table 1 – Prices and Parameters

Item	Unit	LAK
Inputs		
<u>Investments</u>		
Cattle stalls	Per head	500,000
Cattle water supply	Per head	500,000
Cattle - fencing	Per head	500,000
Cattle forage establishment	Per head	350,000
Pigs – stalls and fencing	Per head	1,350,000
Pigs – feeders and drinkers	Per head	500,000
Pigs – forage establishment	Per head	500,000
Goats – stalls	Lump sum	1,500,000
Goats - fencing	Per head	50,000
Goats – forage establishment	Per head	40,000
Operations		
Maize	kg	2,000
Soya bean meal	kg	5,000
Rice bran	kg	1,000
Cassava (sun dried)	kg	2,000
Protein supplements	Kg	4,000
Cattle 3-year-old	kg LW	30,000
Piglets 6 weeks *	each	40,000
Kids 6 weeks	each	40,000
Veterinary vaccines and treatments – cattle	Per head	50,000
Veterinary vaccines and treatments – pigs	Per head	15,000
Veterinary vaccines and treatments – goats	Per head	5,000
Repair and maintenance	Lump sum	5%
Outputs		
Cattle fattened	kg LW	36,000
Piglets fattened	kg LW	24,000
Kids fattened	kg LW	45,000
Production		
Cattle – purchase weight	Kg	150
Cattle – sale weight	Kg	225
Pigs – purchase weight	Kg	8
Pigs – sale weight	Kg	55
Goats – purchase weight	Kg	5
Goats – sale weight	Kg	25

* Premium paid for local suckling pigs

Annex 1, Table 2 NSO Performance December 2015

Name of NSO	NSO-ATT		NSO-Savannakhet		NSO-SAY-Hongsa		NSO-SAY-Khop		NSO-Luang Namtha		NSO-Champasak		NSO-Salavan		Total of Dec 2015	
a) Key data NSO																
General and finance indicators	Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value	
Number of Village Banks (Share Holder)	57		47		45		45		133		64		55		446	
Number of BoD member	7		7		8		7		9		7		9		54	
Number of female BoD members	1		4		1		1		2		1		3		13	
Number of staff members	3		5		12		7		15		9		10		61	
Number of female staff members	1		1		6		3		5		1		4		21	
Number of individual customers	18		33		216		104		6		3		173		553	
Number of female individual customer	8		17		66		46		2		0		42		91	
Female: Percentage of borrower	44%		52%		31%		44%		33%		0%		24%		16%	
Portfolio at Risk																
Portfolio at Risk NSO Wholesale Loans	Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value	
	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP
Total sum Loan Portfolio:	6	219,244,000	9	451,500,000	6	245,000,000	15	261,250,000	44	2,938,683,000	21	568,500,000	10	249,000,000	80	4,115,677,000
Amount of loan overdue > 30 days:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ratio (%)	0%		0%		0%		0%		0%		0%		0%		0%	
Portfolio at Risk NSO Retail Loans	Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value	
	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP
Total sum Loan Portfolio:	17	276,203,500	33	465,194,000	216	2,862,467,000	104	767,620,000	10	128,226,417	3	25,263,460	173	567,694,000	380	4,499,710,917
Amount of loan overdue > 30 days:	4	51,637,000	2	11,856,000	20	161,446,000	0	0	5	16,710,417	2	8,828,000	34	54,885,000	31	241,649,417
Ratio (%)	16%		2%		6%		0%		13%		35%		10%		5%	
Total Portfolio at Risk NSO (b1-b2)	Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value		Current Value	
	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP	No. loans	Amount in KIP
Total sum Loan Portfolio:	23	495,447,500	42	916,694,000	222	3,107,467,000	119	1,028,870,000	54	3,066,909,417	24	593,763,460	183	816,694,000	460	8,615,387,917
Amount of loan overdue > 30 days:	4	51,637,000	2	11,856,000	20	161,446,000	0	0	5	16,710,417	2	8,828,000	34	54,885,000	31	241,649,417
Ratio (%) (Indicator 2/2)	10%		1%		5%		0%		1%		1%		7%		3%	

Annex 1. Table 2 NSO Performance December 2015 – continued

NSO of NSO	NSO-ATT	NSO-Savannakhet	NSO-SAY-Hong	NSO-SAY-Khop	NSO-Luang Namt	NSO-Champasa	NSO-Salavan	Total of Dec 2015
a) Finance indicator:								
Balance sheet NSO								
Cash and Deposits with BO	1,076,014,066	2,132,306,550	600,951,232	195,157,935	339,235,155	420,835,611	125,903,390	4,403,664,938
Cash and Deposits with BOL				118,274,000	76,106,500	13,855,000	6,258,000	
Deposits Banks				76,883,935	323,128,655	406,980,611	119,645,390	
Net Loans outstanding	484,892,500	904,838,000	3,142,486,750	1,003,250,000	3,047,200,000	533,763,460	777,704,570	8,582,667,250
<i>Loans to Clients (Retail)</i>	320,535,500	465,194,000	3,013,342,000	767,620,000	128,226,417	25,263,460	567,694,000	4,694,917,917
<i>Loans to Wholesale Banks</i>	211,244,000	451,500,000	243,000,000	261,250,000	2,938,683,000	568,500,000	249,000,000	4,105,677,000
<i>- Loan Loss Prov Retail Loans</i>	-46,887,000	-11,856,000	-113,855,250	-25,620,000	-19,703,417	0	-38,383,430	-217,927,667
<i>- Loan Loss Prov Wholesale Loans</i>	0	0	0	0	0	0	0	0
Fixed Assets	0	0	20,536,500	24,252,700	57,272,735	0	25,867,887	102,061,935
Other Assets	2,500,000	0	11,070,000	32,414,000	0	0	34,160,500	45,384,000
Total Assets	1,563,406,566	3,037,144,550	3,775,044,482	1,255,074,635	3,503,707,890	1,014,599,071	1,023,636,347	13,134,378,123
								27%
Members Savings and Loan fr	295,127,500	1,378,800,000	2,231,117,500	32,243,300	1,476,004,300	677,619,400	494,830,600	6,013,299,200
Accounts Payable				172,717	0		3,563,000	
Interest Payable				0	11,782,062	0	18,042,000	
Other Liabilities	39,003,000	0	-41,731,405	0	57,966,600	0	0	55,238,195
Total Equity	1,229,276,066	1,058,344,550	1,585,658,387	1,222,652,618	1,957,354,328	336,379,671	507,200,747	7,053,885,949
Charter and Additional Capital (memb	444,000,000	0	341,950,200	550,000,000	200,000,000	47,000,000	156,925,000	1,538,950,200
Fund, Reserve, Other	0	304,430,327	0	16,537,000	523,323,710	0	4,478,000	844,411,637
Donation and Grant	360,000,000	450,000,000	342,636,478	407,600,701	429,772,735	0	165,980,000	2,590,069,914
Retained Earnings from previous Year	34,384,456	0	157,155,048	272,470,100	448,628,196	52,048,500	141,634,349	972,637,800
Profit/Loss for the Current Year	330,891,610	303,853,623	143,856,661	-24,015,183	356,229,687	237,931,171	38,183,402	1,110,816,398
Total Liabilities and Equity	1,563,406,566	3,037,144,550	3,775,044,482	1,255,074,635	3,503,707,890	1,014,599,071	1,023,636,347	13,122,423,344
								0
Ratio of internal resources (%)	74%	85%	76%	68%	86%	100%	82%	80%
Interest Income Wholesale Lending	45,702,500	45,922,500	29,568,000	16,105,583	329,228,714	23,260,000	3,354,000	466,527,297
Interest Income Retail Lending	72,819,500	129,801,000	340,507,000	312,810,577	26,254,457	2,863,460	196,663,000	1,482,192,534
Interest Income from Bank Account	16,210,110	128,976,123	25,619,161	8,925,117	58,627,516	60,000	0	238,358,027
Other Interest and fee Income	0	0	0	0	8,322,000	30,282,851	1,812,679	8,322,000
Interest Expenses (-)	0	-144,242,000	-244,387,500	-10,136,400	-111,522,100	-6,619,400	-42,799,000	-510,288,000
Net Interest Income	134,732,110	160,457,623	751,306,661	327,704,877	310,910,587	49,846,911	159,040,679	1,685,111,858
Income from Fee	237,121,500	163,195,000	140,007,000	113,979,000	656,231,500	237,319,500	68,727,700	1,310,534,000
Gross Operating Income (+)	371,853,610	323,652,623	891,313,661	441,683,877	967,142,087	287,166,411	227,768,379	2,995,645,858
Gross Operating Expenses (-)	498,427,165	408,524,000	682,358,500	450,594,560	968,657,209	991,627,240	167,038,287	3,008,561,434
Net Operating Income (+)/Loss (-)	-126,573,555	-84,871,377	208,955,161	-8,910,683	-1,515,122	-704,460,829	60,730,092	-12,915,576
<i>Increases (+)/Decreases (-) of Loan Loss</i>	30,426,000	5,500,000	77,018,000	15,104,500	-58,048,417	0	38,025,190	70,000,083
<i>Extraordinary Income (+)/Expense (-)</i>	-487,891,165	-394,225,000	-11,919,500	0	-299,696,332	-342,332,000	-15,478,500	-1,193,732,057
Net Profit (+) / Loss (-) of the	330,891,610	303,853,623	143,856,661	-24,015,183	356,229,687	237,931,171	38,183,402	1,110,816,398
								0
OSS (indicator 4/2)	70%	78%	117%	95%	106%	29%	111%	97%

Annex 1. Table 3 Planned NSO – Projected Income Statement

<New NSO Name>	2017	2018	2019	2020	2021	2022	2023
1 Interest Income	-	41,400,000	120,474,000	175,996,800	263,646,000	321,555,000	373,425,750
1.1 Interest Income on Loans	-	41,400,000	120,474,000	175,996,800	263,646,000	321,555,000	373,425,750
of which: Interest Income Retail Lending	-	16,200,000	47,142,000	73,332,000	104,760,000	136,188,000	151,902,000
Interest Income Wholesale Lending	-	25,200,000	73,332,000	102,664,800	158,886,000	185,367,000	221,523,750
1.2 Interest Income from Bank Account	-	-	-	-	-	-	-
1.3 Other Interest Income	-	-	-	-	-	-	-
2 Interest Expenses	-	(6,300,000)	(57,330,000)	(190,512,000)	(247,665,600)	(309,582,000)	(356,019,300)
2.2 Interest Expense on Customer Deposits	-	(6,300,000)	(57,330,000)	(190,512,000)	(247,665,600)	(309,582,000)	(356,019,300)
of which: Interest Expenses for village banks savings	-	(6,300,000)	(57,330,000)	(190,512,000)	(247,665,600)	(309,582,000)	(356,019,300)
Interest Expenses for individual clients savings	-	-	-	-	-	-	-
2.3 Other Interest Expense	-	-	-	-	-	-	-
3 Net Interest Income (3=1-2)	-	47,700,000	177,804,000	366,508,800	511,311,600	631,137,000	729,445,050
4 Non Interest Income (Net)	9,375,000	35,250,000	97,125,000	202,600,000	331,760,000	419,860,000	502,655,000
4.1 Commissions and Fees	9,375,000	35,250,000	97,125,000	202,600,000	331,760,000	419,860,000	502,655,000
of which: Fees for Village Banks	9,375,000	34,350,000	95,325,000	200,200,000	328,160,000	415,660,000	498,155,000
Fees for individual clients	-	900,000	1,800,000	2,400,000	3,600,000	4,200,000	4,500,000
4.2 Other Operating Income	-	-	-	-	-	-	-
5 Gross Operating Income/Loss (5=3+4)	9,375,000	82,950,000	274,929,000	569,108,800	843,071,600	1,050,997,000	1,232,100,050
6 Operating Expenses	664,156,000	966,715,360	945,487,010	906,296,751	959,354,556	1,015,595,829	1,075,211,579
6.1 Salaries and Wages	377,000,000	616,330,000	585,098,800	547,901,068	580,775,132	615,621,640	652,558,938
6.2 Other Personnel Costs and Benefits	137,280,000	145,516,800	133,214,016	118,911,037	126,045,700	133,608,442	141,624,948
6.3 Rent of office	-	24,000,000	25,440,000	26,966,400	28,584,384	30,299,447	32,117,414
6.4 Equipment Expenses (maintenance, repair)	10,000,000	10,600,000	11,236,000	11,910,160	12,624,770	13,382,256	14,185,191
6.5 Administrative Expenses	127,160,000	134,789,600	153,180,176	162,370,987	172,113,246	182,440,040	193,386,443
of which: Stationary and Supply	30,000,000	31,800,000	33,708,000	35,730,480	37,874,309	40,146,767	42,555,573
Travel	18,000,000	19,080,000	20,224,800	21,438,288	22,724,585	24,088,060	25,533,344
Training and Capacity Building	5,000,000	5,300,000	5,618,000	5,955,080	6,312,385	6,691,128	7,092,596
Communication (Phone and Internet)	6,000,000	6,360,000	10,176,000	10,786,560	11,433,754	12,119,779	12,846,966
Utilities (electricity and water)	2,400,000	2,544,000	2,696,640	2,858,438	3,029,945	3,211,741	3,404,446
Marketing	2,000,000	2,120,000	2,247,200	2,382,032	2,524,954	2,676,451	2,837,038
BoD	11,760,000	12,465,600	13,213,536	14,006,348	14,846,729	15,737,533	16,681,785
Annual meeting	40,000,000	42,400,000	44,944,000	47,640,640	50,499,078	53,529,023	56,740,764
Other Administrative Expenses	12,000,000	12,720,000	20,352,000	21,573,120	22,867,507	24,239,558	25,693,931
6.6 Depreciation	-	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000
6.8 Other Operating Expenses	12,716,000	15,478,960	17,318,018	18,237,099	19,211,325	20,244,004	21,338,644
7 Net operating Income/Loss (7=5-6)	(654,781,000)	(883,765,360)	(670,558,010)	(337,187,951)	(116,282,956)	35,401,171	156,888,471
8 Loan Loss Provisions/General Reserve	-	-	8,400,000	11,200,000	16,800,000	19,600,000	21,000,000
8.1 Expenses for Loan Loss Provision Expense	-	-	8,400,000	11,200,000	16,800,000	19,600,000	21,000,000
8.2 Income from Recoveries	-	-	-	-	-	-	-
Reversal of Write-Off (Write-back) of loans	-	-	-	-	-	-	-
Release of General Reserve	-	-	-	-	-	-	-
8.3 Expense for General Reserve	-	-	-	-	-	-	-
* Net operating Income/Loss incl. LLP-GR (*=7-8)	(654,781,000)	(883,765,360)	(678,958,010)	(348,387,951)	(133,082,956)	15,801,171	135,888,471
9 Extraordinary Items	(700,000,000)	(700,000,000)	(600,000,000)	(550,000,000)	(300,000,000)	(80,000,000)	-
9.1 Extraordinary Income	700,000,000	700,000,000	600,000,000	550,000,000	300,000,000	80,000,000	-
of which: Other Income ¹	700,000,000	700,000,000	600,000,000	550,000,000	300,000,000	80,000,000	-
Grant Income (Interest Rate)	-	-	-	-	-	-	-
9.2 Extraordinary Expenses	-	-	-	-	-	-	-
10 Profit before taxes (10=7-8-9)	45,219,000	(183,765,360)	(78,958,010)	201,612,049	166,917,044	95,801,171	135,888,471
¹¹ Taxes	-	-	-	-	-	-	-
12 Net Profit for this Year (12=10-11)	45,219,000	(183,765,360)	(78,958,010)	201,612,049	166,917,044	95,801,171	135,888,471

OSS (Operating Income / Total Operating Costs)

1% 9% 29% 62% 86% 102% 112%

Appendix 11: Draft Programme implementation manual

1. To be developed prior to Programme inception

Appendix 12: Compliance with IFAD policies

Policy	Strategic Objectives
IFAD Strategic Framework 2016-2025- Enabling Inclusive and Sustainable Rural Transformation	The NSLCP-RFSP is strongly aligned with IFAD overarching goal " rural people overcome poverty and achieve food security through remunerative, sustainable and resilient livelihoods." The program takes into account key IFAD policies and strategies relating to targeting, gender, land, ethnic peoples and climate change contributing to the overall objectives of the Strategic Framework 2015-2025 and in particular to: SO1: Increase rural people's productive capacities; SO2: Increase rural people's benefits from market participation; and SO3: Strengthen the environmental sustainability and climate resilience of rural people's economic activities. Key policy orientation includes natural resources – land, water, energy and biodiversity; CC adaptation and mitigation; improved agricultural technologies and effective production services; integration of poor rural people within value chains; and technical skills development.
Lao PDR COSOP 2011 - 2015	The Country Strategic Opportunities Programme (COSOP) is aligned with the policies and strategies of the Government of the Lao People's Democratic Republic which has three main objectives: (i) community-based access to management of land and natural resources; (ii) access to advisory services and inputs for sustainable, adaptive and integrated farming systems and; (iii) access to markets for selected products. The nature of the proposed primary target group will be poor rural households, composed mainly of subsistence farmers, wage laborers, landless people and market-participant smallholder farmers. The target group will also include "near poor" households, which are an income group increasingly vulnerable to shocks, especially those associated with climate risk. This group will include the under-privileged ethnic people. Finally, specific provisions will be made to ensure the full participation of women and youth. All of these target group characteristics are consistent with IFAD policy. The additional NSLCP-RFSP funding builds on the new Agriculture and Rural Development Strategy, the draft 8 th National Socio-Economic Development Plan (NSED), and the National Growth and Poverty Eradication Strategy (NGPES).
Environmental Natural Resource Management (ENRM) Policy	NSLCP-RFSP supports the primary and secondary objective of this policy by promoting sustainable livestock production systems resilient to climate change. The program adheres to the following policy principles: (i) increased investment in approaches providing multiple benefits for sustainable intensification of agriculture: improved watershed / resilient infrastructure; (ii) strengthening the governance of natural assets to the rural poor through land ownership and community empowerment; (iii) equality and empowerment of women and ethnic peoples in the context of natural resource management and family nutrition; and (iv) Improving access of poor rural communities in financing environmental protection and the fight against climate change.
IFAD's Climate Change Strategy	Overall, the response to climate change threats to agriculture is likely to result in greater support to NRM – such as hillside forage development, water management and forest land zonation, use planning and allocation. The National Risk Profile of Lao PDR identified the following major natural hazards that affect the country: floods, storms, drought, landslides, disease outbreaks and epidemics, and unexploded ordnance (UXO). Key policy orientations include: Reducing emissions from livestock manure through balanced feeding, lowering the N content of the animal feeds, anaerobic digestion for methane production

Policy	Strategic Objectives
	<p>for use as a source of cleaner energy, waste application (dosing and injection) and the introduction of household-based, community-based and animal farm-based biogas facilities (NSCC, 2010).</p> <p>The National Adaptation Programme of Action on Climate Change (NAPA) sets out the national framework to reduce climate change-induced vulnerabilities. Specific measures for the agriculture sector include: promotion of climate-resilient crop varieties and agriculture and livestock techniques; integrated pest management; soil improvement using locally available organic fertilizer and existing agricultural waste; soil protection against erosion; storage improvement; and the development of related capacities to the benefit of farmers and their organizations, as well as of extension staff (NAPA, 2009).</p> <p>The Renewable Energy Strategy, in Lao PDR, 2011, which seeks to, in partnership with private entrepreneurs and NGOs, carry out technical studies, identify the most appropriate business models and support mechanisms; information campaigns and training programs for biogas installation and utilization; develop an accreditation scheme to certify installers and promote replication at the national level.</p>
IFAD's Policy for Gender equality and Women's empowerment	<p>NSLCP-RFSP will systematically address issues of gender equality and women's empowerment. It will help women and their organizations in their advocacy for access to resources and knowledge. It will strengthen the capacity of Programme partners (national, local and decentralized institutions, training centers, private sector providers and national and international NGOs) to take into account issues of gender equality and community empowerment. This is particularly considered a difficult group to reach and therefore will be subject to special attention.</p>
IFAD's Policy for indigenous people	<p>The approach to the non Lao-Tai ethnic groups is consistent with IFAD's policy to ethnic minorities, although this is not a term that is used in Lao PDR. The target populations in the uplands consist mainly of diverse ethnic groups, not from the Lao-Tai ethnic majority. Cultural differences will dictate the approach adopted, as well as different poverty levels. Local languages will be used in all village meeting, planning and extension sessions. District teams responsible for implementation will reflect gender balance, and their members will have command of ethnic languages. Capacity building tools will be developed in the languages of the main ethnic groups and take into consideration cultural differences. Special efforts will be made to recruit facilitators and extension agents speaking ethnic groups languages and in mobilizing and mentoring students from the ethnic schools.</p>

Policy	Strategic Objectives
IFAD's Policy to improve access to Land and security of Tenure	Tenure insecurity is a major risk for the implementation of adaptation measures to climate change. NSLCP-RFSP will support the PLUP, being enacted in Lao PDR and will co-finance the issuance of land and forest use right certificates. There is a close link between the way in which natural resources are accessed and retained, and the way in which they are managed. The better defined and more secure the tenure or use rights, the more sustainably those resources are managed. Yet, tackling land degradation, or sustainably exploiting rangeland or fisheries resources, are also about improving management and conservation technologies and practices. Two policy objectives of IFAD are identified: (i) align with national priorities and supporting strategies to reduce poverty and (ii) focus on empowerment of action of the rural poor and their representative organizations.
IFAD's Knowledge Management Strategy	The NSLCP-RFSP is aligned with the Knowledge Management strategy, especially in the following areas (i) strengthening the process of knowledge sharing and learning; (ii) development of partnerships to provide a broader base of knowledge sharing and learning and; (iii) promotion of a dynamic platform for knowledge sharing and learning. The programme will use (human and financial) resources to enhance its impact by sharing knowledge and learning.

Appendix 13: Contents of the Programme Life File

1. Programme Concept Note – 15 January 2015
2. Working paper No1: Lessons learnt from the Northern Livestock Development Project (LDP) and Assessment of Livestock Value Chains in northern Lao PDR.
3. Working paper No2: Livestock Value Chain Optimization & Public Private Partnerships for Livestock Processing Facilities
4. Programme Concept Note – 26 January 2016
5. OSC Issues Paper – 26 January 2016
6. Detailed financial and economic analysis tables
7. NSLCP Project Administration Manual
8. NSLCP Indigenous Peoples Planning Framework
9. NSLCP Poverty reduction and social strategy note