



Investing in rural people

## LAO PEOPLE'S DEMOCRATIC REPUBLIC

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### **Adaptation for Smallholder Agriculture Programme (ASAP) - Food and Nutrition Security and Market Linkages Programme**

#### **Final project design report**

Main report and appendices

Document Date: 22-May 2015  
Project No. 1100001680  
Report No: 3754-LA

Asia and the Pacific Division  
Programme Management Department



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## Currency equivalents

Currency Unit	=	Lao LAK (LAK)
US\$1.0	=	LAK 8,000

## 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
AFPRC	Agriculture and Forestry Policy Research Centre
ASAP	Adaptation for Smallholder Agriculture Programme
AWPB	Annual Work Plan and Budget
BBGs	Basic Block Grants
BDO	Business Development Officer
CC	Climate change
CBFM	community-based forest management
COSOP	Country Strategic Opportunities Component
DA	Designated Account
DAFO	District Agriculture and Forestry Office
DES	District Extension Service
DDF	District development Fund
DDST	District Development Support Teams
DoALAM	Department of Agricultural Land Management
DoAEC	Department of Agricultural Extension and Cooperatives
DoLF	Department of Livestock and Fisheries
DoF	Department of Forestry
DoI	Department of Irrigation
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
DSEDCC	District Socio-Economic Development Coordination Committee
EU	European Union
FAO	Food and Agriculture Organisation
FHH	Female Headed Households
FA	Farmers Groups
FNML	Southern Laos Food and Nutrition Security and Market Linkages Programme
GALS	Gender Action Learning System
GAP	Gender Action Plan
GIS	Geographic Information System
GoL	Government of Lao Peoples Democratic Republic
HH	households
INC	Initial National Communication
IRAS	Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts project
KM	Knowledge Management
LAK	Lao LAK
LAIP	Local Adaptation Investment Plans
LEA	Laos Extension for Agriculture
LEAP	Laos Extension for Agriculture Project
LDCF	Least Developed Countries Fund
LDCF 2	Effective Governance for small-scale rural infrastructure and disaster preparedness in a changing climate project
LM-RED	GIZ Land Management and Rural Economic Development project
LoCAL	<b>Local Climate Adaptive Living Facility</b>

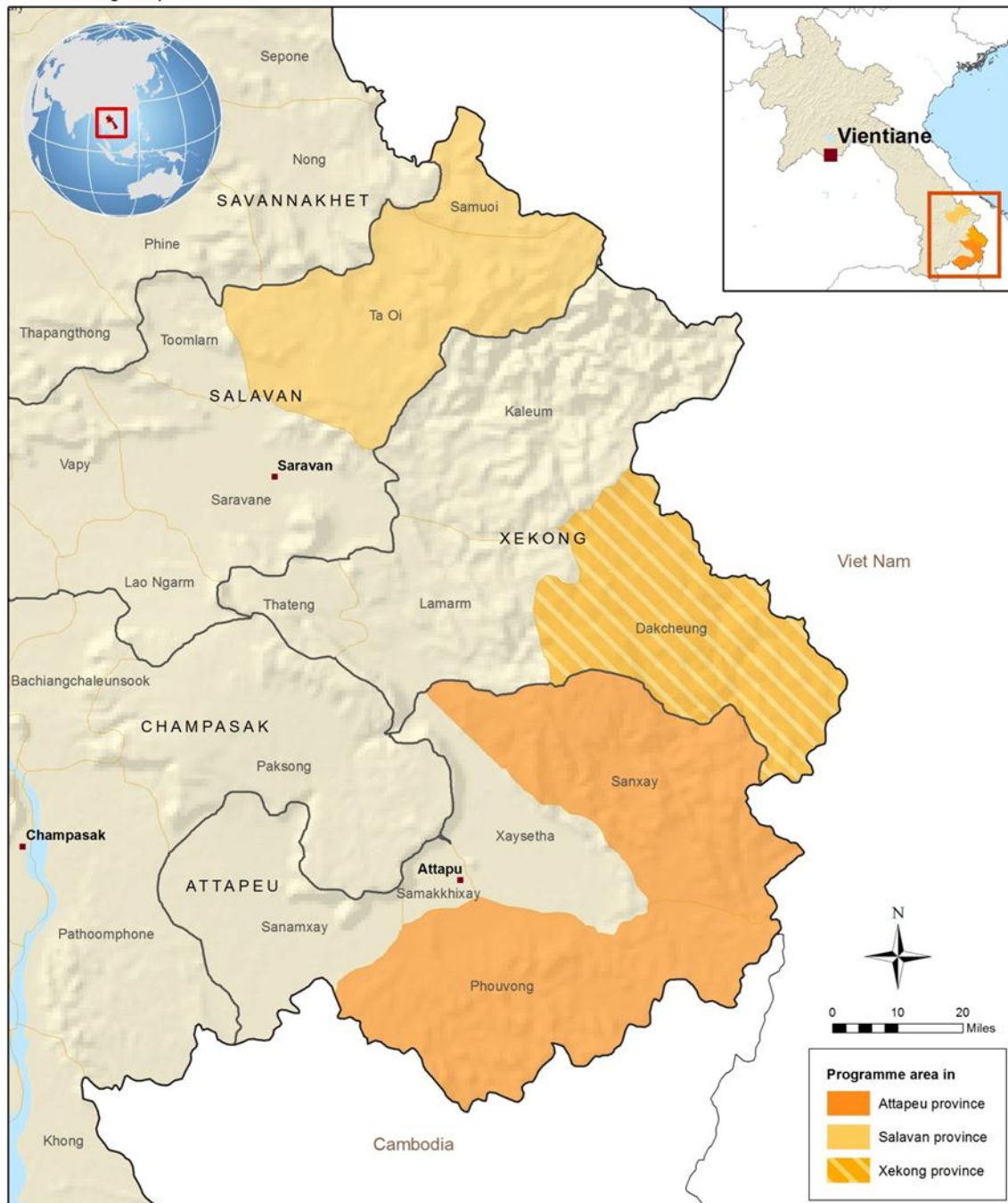
LR	Learning Route
LWU	Lao Women Union
MAF	Ministry of Agriculture and Forestry
MONRE	Ministry of natural resources and Environment
M&E	Monitoring and Evaluation
NAFRI	National Agriculture and Forestry Research Institute
NAPA	National Adaptation Component of Action on Climate Change
NCSA	National Capacity Self-Assessment
NTFP	Non-Timber Forest Products
PAFO	Province Agriculture and Forestry Office
PCR	Programme Completion Report
PDR	People's Democratic Republic
PDO	Programme Development Objective
PIM	Programme Implementation Manual
PRCO	Programme Regional Coordination Office
PLUP	Participatory Land Use Plan
PSD	Participatory Scenario Development
PY	Programme Year
OEBGs	Operational Expenditure Block Grant
RSC	Regional Steering Committee
SACCC	Smallholder Adaptation to Climate Change Component - FNML
SDC	Swiss Development Cooperation
SLM	sustainable land management
SNRMPEP	Sustainable Natural Resource Management & Productivity Enhancement Project
SNV	Netherlands Development Organisation
SPBGs	Social Protection Block Grants
SPS	Sanitary and Phyto-sanitary Measures
SWG	Sector Working Group
UNFCCC	United Nations Framework Convention on Climate Change
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
USD	United States Dollar
UXO	Unexploded Ordnance
VRA	Vulnerability and Risk Assessment
VAT	Value Added Tax
VC	Value Chain
VDP	Village Development Plan
WA	Withdrawal Application
WOCAT	World Overview of Conservation Approaches and Technologies

## Map of the Component area

### Lao People's Democratic Republic

### Southern Laos Food and Nutrition Security and Market Linkages Programme (FNML)

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 | 16-01-2013



## Executive Summary<sup>1</sup>

1. **Background.** The Smallholder Adaptation for Climate Change Component (SACCC) is a new component within the Southern Laos Food and Nutrition Security and Market Linkages Programme (FNML) financed through an International Fund for Agricultural Development (IFAD) Adaptation for Smallholder Agriculture Programme (ASAP) grant of USD 5 million, with co-financing from the Government of the Lao Peoples Democratic Republic (Lao PDR) (USD 0.60 million) and SACCC

	FNML (core)	ASAP	FNML (total)
IFAD Grant	9.72	-	9.72
ASAP Grant	0.00	5.03	5.03
Government of LAO PDR	0.56	0.60	1.15
Banking and Private Sector	1.48	-	1.48
Beneficiaries	0.54	0.93	1.47
<b>Total</b>	<b>12.30</b>	<b>6.56</b>	<b>18.86</b>

beneficiaries (USD 0.93 million). This financing will supplement the existing FNML financing for which the total costs are USD 12.29 million, of which IFAD financing amounts to USD 9.72 million (100% grant), government financing taxes and duties as well as government staff salaries amounts to USD 0.56 million, the private sector and Partner Banks will contribute around USD 1.48 million, and beneficiaries will contribute around USD 0.53 million. The Component proposal is consistent with the objectives of IFAD's Country Strategic Opportunities Programme (COSOP), which focuses on community-based management of, land and natural resources, sustainable, adaptive and integrated farming systems and access to markets, and is, itself, aligned with with the Lao PDR National Social Economic Development Plan, the Government's Strategy for Agricultural Development 2011 to 2020, the National Adaptation Programme of Action to Climate Change (2009) and the National Climate Change Strategy" (2010). Despite government endorsing these strategies, climate change planning and implementation is still embryotic in Lao PDR, while rural development planning remains relatively fragmented across the various natural resource management sectors.

2. **Rationale and Approach.** While agriculture remains the primary source of employment in the rural areas of Lao PDR, overall sector productivity is low as indicated by an income per capita in the farming sector that is less than half the national average. Most of the 650,000 farming households are engaged in subsistence and low productivity activities, which suffer from a low access to inputs, lack of appropriate technologies and crop selection, limited access to finance and other support services, limited organization among farmers, limited access to markets and farmer's risk aversion strategies. Under nutrition in Laos is alarming with 44% of children under five stunted. Their vulnerability to climate change impacts further undermines their food and nutrition security and their potential to produce marketable surpluses, the latter being the primary thrust of the FNML, of which the SACCC is a component.

3. The Lao PDR is one of the countries' in the SE Asia region most vulnerable to climate change (CC)<sup>2</sup>. This is mainly due to its high dependence on climate-sensitive natural resources and its low adaptive capacity. The key 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. Rising temperatures will also increase the incidence and range of pests and, when combined with decreased rainfall and

<sup>2</sup> Yusuf A. A. and Francisco, H. A., 2009, Climate Change Vulnerability Mapping for Southeast Asia, IDRC/SIDA-EPPSEA-CIDA.

increased demand, higher temperatures will also present new challenges related to water storage or irrigation mechanisms. Climatic variability, in particular what appears to be an increase in the frequency and severity of drought in some parts of the country, is already limiting the availability water for household production. While a wealth of adaptive technologies for climate change amelioration exist in the Lao PDR, they are not properly documented or disseminated and there is currently no effective platform/channel for this. Government technical and coordination capacities at provincial and district levels are also insufficient for building strong CC adaptive capacity amongst smallholder farmers. The FNML programme takes into consideration climate change related issues but its financing is insufficient to address the range of shocks and stresses experienced by communities and households.

4. Climate change is already negatively impacting smallholder agricultural production and productivity, necessitating urgent and effective measures for building adaptive capacities, methods and technologies. Poor, often ethnic people households are the most vulnerable to CC impacts, lacking the resources, services and systems that will enable them to cope and adapt. To respond to these challenges, the government has developed a long term vision for addressing negative CC impacts, detailed in the Strategy on Climate Change of the Lao PDR. To this end, capacity must be strengthened at individual, household, community, local institutions and government ministry levels to ensure effective action is taken to reduce vulnerability to climate shocks.

5. The focus of the SACCC will be to build the adaptive capacity of communities and institutions to better contend with CC risks. The Component approach involves building knowledge and methodologies for improving participatory planning and facilitating adaptive change through strategic co-financing of establishment costs for climate resilient livelihoods at household and community levels. The SACCC, in combination with other FNML components, seeks to reduce the CC vulnerability and raise the resilience of highly vulnerable communities and households by strengthening the natural, physical, social, human and financial capital of their communities. In this regard, a resilient household is anticipated to exhibit the following characteristics: (i) diversified livelihood and income streams; (ii) improved natural resource and risk management based on better access to knowledge on adapting to CC; (iii) membership in social networks, particularly farmer/community groups; (iv) protection from some climatic risk as a result of community infrastructure; and (v) direct engagement in village level planning.

6. The Government has revised its poverty targeting focus from the district level to kum ban and household levels<sup>3</sup>. The SACCC will adopt a similar targeting focus for climate change adaptation in the FNML districts. Adaptation strategies will increase food and livelihood resilience to prevailing shocks/stresses through improved farming capacity, community-based action and access to climate adapted infrastructure, all linked to FNML support to agriculture extension, credit and value chain access.

7. **Component area.** The SACCC targets the five FNML districts that are located at the south-eastern tip of Laos and along the Vietnamese border: Phouvong and Xansay (Attapeu province); Dakcheung (Xekong province); and Ta'Oy and Samuay (Salavanh province). With the exception of Phouvong, all the target districts are upland districts.

8. **Target population and expected benefits:** The main target group will be within the population of 175 FNML target villages. These villages will be ranked for climate change vulnerability based on, inter alia, (i) Kum ban poverty data as specified in Government's Decree #285/PM, specifically those related to poverty incidence, access to a road and access to water; (ii) vulnerability to climate change; (iii) commitment of leadership; (iv) the village natural resource base (agriculture and forest land, water access, infrastructure, etc.); and (v) level of on-going support projects. The final criteria for village and household vulnerability assessment will be based on the experience of the LCDF II GEF project, which is currently developing the methodology and will pilot it in southern Laos in early 2015. The

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<sup>3</sup> Decree #285/PM on the Poverty Criteria and Development Criteria (2010-2015) of October 13, 2009.

SACCC will not work with villages scheduled to be resettled and will prioritize the most vulnerable villages and households. Women constitute a specific target within the main target group (particularly female headed households where existing) to ensure that they get equal and priority access to Component services and benefits. In order to ensure Gender Equality and Social Inclusion (GESI) dimensions, women will be enabled to have separate representation where they are unable to secure effective representation in committees at the village level. Ethnic people represent the majority of the population in all FNML districts<sup>4</sup>.

9. **Benefits.** It is estimated that the Component will include at a minimum 140 villages<sup>5</sup> and 6,000 smallholder households. Assuming a 70% success rate, the SACCC will reduce the CC vulnerability of at least 4,200 households (HH) and 21,000 people. It is estimated that about 40% of the ASAP component targeted HH will also benefit from FNML interventions. Recognizing that ASAP investments will also contribute to reduce poverty, the overall FNML target for reduced poverty can therefore be increased from 9,450 HH<sup>6</sup> to 12,000 HH. Less vulnerable villages and households not directly targeted by the Component will benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district. The SACCC will be implemented over a period of five years,

**Objectives and outcomes.** This component contributes to the goal of the FNML, namely: *To contribute to the reduction of extreme poverty and hunger (MDG 1) in Lao PDR* and the Programme Development Objective (PDO): *To ensure sustainable food and nutrition security and income of households in the target area.* The anticipated main outcome at the PDO level is: (i) At least 4000 direct beneficiary HHs (70% of target HHs) moved down the CC vulnerability scale by at least one step (disaggregated by gender and ethnicity of HH-head).

#### **Smallholder Adaptation to Climate Change Component**

10. The Component will have two Outcomes; (i) Enabling environment for climate change adaptation strengthened; and (ii) Community-based Adaptation Investment Plans sustainably implemented.

11. **Outcome 1. Enabling environment for climate change adaptation strengthened.** The objective of this outcome will be: A scalable agriculture sector climate change adaptation management framework operating with participating institutions, districts and communities. This outcome will have four outputs: (i) Participating technical ministries and districts are climate informed; (ii) Participatory Local Adaptation Investment Plans prepared; (iii) GIS based planning piloted; and (iv) Climate change adaptation knowledge enhanced.

12. **Output 1.1. Participating technical ministries and districts are climate informed.** The Policy Think Tank under the National Agriculture and Forestry Research Institute (NAFRI) Agriculture and Forestry Policy Research Centre (AFPRC), supported by relevant Ministries, technical departments and CC projects, will conduct an initial round of seminars at national and provincial levels to inform MAF management and staff of the current and projected impact of climate change on agriculture and forestry in Laos and on means to redress that impact through adaptive measures. Specific CC adaptation capacities in the MAF Department of Agricultural Land Management (DoALAM), Department of Agricultural Extension and Cooperatives (DoAEC), Department of Livestock and Fisheries (DoLF), Department of Forestry (DoF) and Department of Irrigation (DoI) will be strengthened. Building off on-going vulnerability assessment work, district and provincial officials will thereafter, with technical support, be engaged in a process of assessing climate change vulnerability at district and kum ban levels in their provinces. Vulnerability will be assessed on the basis of, *inter alia*, (i) the extent to which systems (human and social, physical and financial, and

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<sup>4</sup> Key characteristics of the Lao target ethnic groups are summarised in Appendix 1

<sup>5</sup> The 175 FNML villages will be ranked in accordance to their vulnerability to climate change. Not all villages may have a level of vulnerability that meets the SACCC investment requirements.

<sup>6</sup> FNML indicator is for 90% of 10,500 project targeted households to be lifted out of poverty.

natural/environmental) are exposed to climate change; (ii) the extent to which systems are sensitive to this exposure; and (iii) the capacity of systems to adapt to exposure and sensitivity. Systems are understood as providing a 'gateway' to those services that enable households and communities to adapt to the impacts of climate change. The determination of kum ban vulnerability will be assisted by the development of an appropriate GIS database. Output investments will be directed to those kum bans considered most vulnerable to climate change. Within vulnerable kum bans, villages will be enabled to identify the most CC vulnerable households through participatory process.

13. This Output would also strengthen the capacity of district and provincial officials to support pro-poor local and community development processes, including the financing of training on community and local development planning, financial and contract management, and supervision and procurement.

14. Output 1.2. Participatory Local Adaptation Investment Plans prepared. This output will, building off FNML participatory land use planning (PLUP) processes, empower communities to (i) assess their own CC adaptation needs using adapted vulnerability risk assessment and participatory scenario development tools to ensure plans are climate smart; (ii) discuss these needs with local authorities; and (iii) provide implementation support for the construction of small public infrastructure investments, the operations and maintenance of such investments including the establishment of user groups, and the monitoring of outputs and outcomes at the community and kum ban levels. The output will be community based Local Adaptation Investment Plans (LAIP) that will be integrated into the FNML district plans. Prior their financing, the SACCC will further evaluate community identified investments with a view to catching the location specific particularities of the proposed investment, integrating infrastructure with, at least on a pilot basis, complementary ecosystem management solutions and to ensure gender-equal access to programme resources that address the vulnerabilities and adaptation needs of all ethnic groups. Facilitators, covering a cluster of 2-4 kum bans will be employed to coordinate this process.

15. Output 1.3. GIS based planning piloted. This output will strengthen MAF and NAFRI GIS-based capacity to support climate vulnerability assessment and planning at provincial, district and kum ban levels and to pilot a sub-watershed/landscape based approach to community-based adaptation investment planning. To allow for a more integrated approach at the district level, the SACCC will pilot a sub-watershed or landscape approach, initially in one district in each province, using GIS-based mapping, which can further inform the kum ban/district climate change adaptation investment planning process on upstream and downstream linkages between villages, kum bans and districts. In addition to the piloting of GIS-based mapping, the output will support the establishment of a GIS-based data management system within the MAF and NAFRI and at Provincial Agriculture and Forestry Office (PAFO) levels, which will be aligned/integrated with existing systems in the country, to support planning and monitor of impacts.

16. Output 1.4. Climate change adaptation knowledge enhanced. This output will build the capacity of NAFRI AFPRC to collate, analyse, package into knowledge products and disseminate climate change adaptation knowledge in Lao PDR. The SACCC will establish a knowledge exchange platform through a participatory process under the Agriculture and Rural Development Sector Working Group. This process will facilitate a practical avenue for collaboration and learning, thus directly contributing to more effective coordination, coherent messaging and implementation of government policies on climate change adaptation. Good practices will be identified and scaled up within the FNML and other programs. This information will be accessible through a NAFRI hosted database linked to and supported by the World Overview of Conservation Approaches and Technologies (WOCAT). Through the knowledge exchange platform, gaps in agriculture and adaptation knowledge will be identified for further testing of approaches and technologies and for financing through the Adaptation Innovation Fund (see Activity 2.1.3). An effective M&E and information management system will be elaborated for assessing these on-farm trials and for disseminating best practice.

**17. Outcome 2. Community-based Adaptation Investment Plans sustainably implemented.**

The objective of this Outcome will be: Climate informed and gender-sensitive natural resource management systems and structures established. The Outcome will have one Output: Climate change adaptation fund disbursed.

18. Output 2.1. Climate change adaptation fund disbursed. The focus of this output will be on co-financing public good climate adaptation infrastructure and community and household adaptation needs, identified through participatory, community-based needs assessment. The output will co-finance three activities:

19. *Activity 2.1.1. Community-based small-scale water infrastructure investments operational.* This will include small scale stream and spring diversions and water holding ponds, irrigation canals and, where need is identified and not met through the FNML, safe potable water supply. Infrastructure investment schemes will be identified and prioritized within the participatory LAIPs developed under Output 1.2, with engineering oversight provided by UN Habitat, verified by the District Agriculture and Forestry Office (DAFO). Small-scale water infrastructure will be a community owned collective good. The LAIPs will be integrated at the kum ban level through an inclusive process led by elected village representatives. Emphasis will be placed on the provision of community-level facilitation and the regular and rigorous monitoring and evaluation of community planning processes. Attention will be paid to strengthening villagers' participation in sub-project planning, implementation and monitoring with the support of SACCC kum ban facilitators. Planning will facilitate selection of investments that are profitable, responsive to specific community needs and take into account local maintenance capacities. The SACCC will finance up to 75% of community infrastructure costs, with 25% in-kind beneficiary co-financing, to a maximum of LAK 80 million (USD 10,000) per village (including in-kind contribution). Where sub-water catchment/landscape approaches require higher levels of cross-village investment, community investment fund allocation could be increased by up to 100 per cent. Up to 100 villages would benefit from small-scale irrigation development.

20. *Activity 2.1.2. Community-based Forest Management operational.* The SACCC will assist interested villages having collectively managed village forest to plan and implement community-based forest management (CBFM), including agro-forestry reinforcement of forest areas for income generation and to acquire collective forest use rights for such areas. Where village forestry areas are co-joined at kum-ban level, the plan will be prepared at that level. Trained kum ban facilitators and DAFO forestry staff will coordinate community meetings to discuss regulations, laws, and decrees relating to the management of forest and land resources, to explain the importance of forest resources, to learn about existing forest and land conflicts, to talk about forest management issues including the impact of swidden agriculture, and to discuss the role of women in village development. Communities will, within the joint frameworks of administrative and traditional management in their communities, elect forest management committees that will establish rules for forest economic use and biodiversity protection. The District Forest Unit will collect forest and land related information, measure permanent public land areas, survey village boundaries, classify forest land, create maps and, where not already existent, prepare necessary documents for community management. This activity will be initially piloted in selected kum bans in three FNML districts, particularly targeting locations that incorporate micro-watersheds.

21. Up to 120 CBFM committees will be assisted to prepare equitable, gender sensitive rules for forest use and biodiversity protection and 3-year plans for forest utilization, including investment in the reinforcement of degraded forest through income generating agro-forestry measures. Following the acceptance of the CBFM plan by the District Socio-economic Development Coordination Committee (DSEDCC) and the allocation of forestry use rights by the provincial administration, the village CBFM committee will be able to access SACCC co-financing for agro-forestry investment up to USD 9,000 in 2 annual tranches of up to USD 4,500. CBFM committees will be expected to contribute at least 25% of the investment cost through cash or in-kind payments. District Agriculture and Forestry Extension Officer (DAFEO) capacity to technically support to CBFM will be strengthened. Up to 110 villages will benefit from CBFM investment.

22. *Activity 2.1.3. Climate change on-farm adaptation innovation fund disbursed.* This activity will finance innovative smallholder farmer group climate change adaptation investments for improved food and nutrition security including, *inter alia*, fish production; forage development for stall fed livestock; soil improvement; time efficient and climate adapted farm equipment; renewable energy technologies (RET); and participatory action research driven by beneficiary needs and identified CC knowledge gaps (see Output 1.4). Shifts in agriculture production to address climate change can involve substantial costs, including delayed yields, which may constrain investment in improved resilience by vulnerable households. To support and accelerate this investment process, the SACCC will provide co-financing for climate change adaptation. Based on proposals by vulnerable farmer groups, identified through the climate change adaptation investment planning process, the SACCC will approve co-financing that will cover up to 75% of the costs of each investment, with a maximum co-financing amount of about LAK 72 million (USD 9,000) per village (including beneficiary contribution). Beneficiary co-financing will be through in-kind contributions. Beneficiaries will receive technical support from the FNML staff, including through Lao Extension Approach (LEA) farmer field schools (FFS) and be able to use up to 30% of the grant to purchase, private technical support from lead farmers, civil society support organisations or NAFRI, under performance-based contracts. Up to 100 villages will benefit from adaptation innovation investment.

23. **Component costs.** The total cost for the ASAP FNML is estimated at USD 18.86 million (LAK 150.86 million) including contingencies. The total base costs are USD 17.87 million (LAK 142.97 million). Physical and price contingencies account for USD 0.44 million and USD 0.54 million respectively (2% and 3% of the total base costs). Investment costs are estimated at USD 16.16 million representing 90% of total cost.

24. **EIRR and NPV.** The overall Component Economic Internal Rate of Return (EIRR) is 28%. The estimated NPV for a 10% discount rate is USD 17.77 million. A positive NPV indicates that the component investments are robust.

## Logical Framework

Narrative Summary	Key Performance Indicators	Means of Verification	Assumptions (A) / Risks (R)
<b>Goal:</b> (FNML)			
Contribute to reduce extreme poverty and hunger	<ul style="list-style-type: none"> <li>• 12,000 HH lifted out of poverty (each HH with a per capita income of USD190 per annum)</li> <li>• 6,000 HH with improved food security (measured as a HFIAS<sup>7</sup> score of 7.0 or lower)</li> <li>• Child malnutrition at least 10% better than the national average and 35% or lower</li> <li>• 6,000 HH with an assets index of at least 0.3<sup>8</sup></li> </ul>	<ul style="list-style-type: none"> <li>• MDG surveys</li> <li>• LECS Surveys and nutrition survey</li> </ul>	<ul style="list-style-type: none"> <li>• Continued government commitment to poverty reduction</li> </ul>
<b>Development Objective:</b> (FNML) (SACCC performance indicator highlighted in blue)			
To ensure sustainable food and nutrition security and income of households in the target area	<ul style="list-style-type: none"> <li>▪ 6,000 households report an agricultural output of food crops<sup>9</sup> of at least 2.0 tons/ha</li> <li>▪ 900 vulnerable HH cultivate 270 ha of vegetables</li> <li>▪ 4,000 HHs accessing financial services</li> <li>▪ 3,000 HHs participating in a PPP</li> <li>▪ 4,200 direct beneficiary HHs moved down the CC vulnerability scale by at least one step (disaggregated by gender and ethnicity of HH-head).</li> </ul>	<ul style="list-style-type: none"> <li>▪ RIMS and project surveys</li> <li>▪ Qualitative surveys</li> <li>▪ MAF, NAFRI and PAFO statistics</li> </ul>	<ul style="list-style-type: none"> <li>• No major socio-economic slow down, political upheaval or natural disasters</li> <li>• Stability of government policies and donor investments in CCA</li> <li>• Programme investments are realized as per design</li> </ul>

<sup>7</sup> Household Food Insecurity Access Scale (HFIAS)

<sup>8</sup> The wealth index is computed based on the following assets, including main materials of house floor, number of bedrooms, types of house, total living area, having radio, TVs, refrigerator, rice mill, landline phone, mobile phone, Internet, computer, rice cooker, bikes, motorbikes, car/truck, tractor, hand tools for cultivation, power tiller, animal drawn plow, and toilets. Following IFAD guidelines (2005), this wealth index will be calculated based on the Principal Component Analysis (PCA) method

<sup>9</sup> Rice

Narrative Summary	Key Performance Indicators	Means of Verification	Assumptions (A) / Risks (R)
<p><b>Outcome 1: Enabling environment for climate change adaptation strengthened</b></p> <p>A scalable agriculture sector climate change adaptation management framework operating with participating institutions, districts and communities.</p>	<ul style="list-style-type: none"> <li>▪ 120 villages with improved adaptation capacity</li> </ul>	<ul style="list-style-type: none"> <li>▪ RIMS and project surveys</li> <li>▪ Qualitative surveys</li> <li>▪ Knowledge Platform website</li> </ul>	<ul style="list-style-type: none"> <li>• Programme financing is disbursed in time to support field implementation</li> <li>• LAIPs are prepared and implemented at field level</li> <li>• Farmers are willing to adopt recommended methods and technologies</li> <li>• Technical service support system is strengthened and responds to the grassroots level needs</li> </ul>
<p><b>Outputs:</b></p> <p>1.1 Participating technical ministries and districts are climate informed</p> <p>1.2 Participatory Local Adaptation Investment Plans prepared</p> <p>1.3 GIS based planning piloted</p> <p>1.4 Climate change adaptation knowledge enhanced</p>	<ul style="list-style-type: none"> <li>▪ 3 GIS-based sub-watershed management plans, each covering at least 6 adjoining kum bans developed and implemented;</li> <li>▪ National climate change adaptation knowledge platform operational and integrated into WOCAT network</li> <li>▪ 6,000 beneficiary households participate in LAIP preparation (disaggregated by gender and ethnicity of HH-head)</li> <li>▪ 5 Targeted Districts and 100 Ministries' staff receive - training in climate adaptation</li> </ul>	<ul style="list-style-type: none"> <li>▪ RIMS and project surveys</li> <li>▪ Project M&amp;E system</li> <li>▪ MAF and PAFO statistics</li> </ul>	<ul style="list-style-type: none"> <li>• As above</li> </ul>
<p><b>Outcome 2: Community-based Adaptation Investment Plans sustainably implemented</b></p> <p>Climate informed and gender-sensitive natural resource management systems and structures established</p>	<ul style="list-style-type: none"> <li>▪ 4,200 HH report satisfaction with climate adaptation technical service support provided through line agencies (disaggregated by household head gender and ethnicity)</li> </ul>	<ul style="list-style-type: none"> <li>▪ RIMS and project surveys</li> <li>▪ MAF and PAFO statistics</li> </ul>	<ul style="list-style-type: none"> <li>• As above in Outcome 1</li> <li>• Programme financing is disbursed in time to support field implementation</li> </ul>
<p><b>Outputs:</b></p> <p>2.1 Climate change adaptation fund disbursed</p> <ul style="list-style-type: none"> <li>• <i>Community-based small-scale water infrastructure investments operational;</i></li> <li>• <i>Community-based Forest Management Programs operational;</i></li> <li>• <i>Climate change on-farm adaptation innovation fund disbursed.</i></li> </ul>	<ul style="list-style-type: none"> <li>▪ 140 villages implement a SACCC LAIP</li> <li>▪ 4,000 HH adopting at least one new climate resilient agriculture practice</li> <li>▪ 500 ha of small-scale irrigation established;</li> <li>▪ 4,000 ha of forest land under CBFM;</li> <li>▪ 2,000 HH have implemented an innovative adaptive technology</li> </ul>	<ul style="list-style-type: none"> <li>▪ RIMS and project surveys</li> <li>▪ Project M&amp;E system MAF and PAFO statistics</li> </ul>	<ul style="list-style-type: none"> <li>• As above</li> <li>• Collaboration with the ADB BCC and FIP project in the districts for synergy and avoidance of overlap</li> </ul>



## 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 poverty, which dropped from 46% of the population in the mid-90s to 27.6% in 2008<sup>10</sup>. The poorest groups in the lowlands are those who have been resettled from mountain regions. In terms of UNDP multidimensional poverty index, 47.2% of the population lived in multidimensional poverty in 2013<sup>11</sup> while an additional 14.1 percent were vulnerable to multiple deprivations. The intensity of deprivation in Lao PDR was 56.5%. Improved education and health have also contributed to increased human development, which grew by an annual average of 1.59% since 1990. The PDR's HDI value for 2012 was 0.543 — in the medium human development category — positioning the country at 138 out of 187 countries and territories, a rank shared with Cambodia. 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 has remained a predominantly rural phenomenon: Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live. In upland areas, the poverty rate is as high as 43%, compared with about 28% in the lowlands. In the FNML target villages, the ethnic groups living in the midland represent the majority of the population<sup>12</sup>.

2. **Agriculture and Agri-business.** While the GDP share of agriculture declined from 53% to 26% between 2000 and 2013, the primary sector remains the largest source of employment: over 75% 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. Much of the growth is due to the expansion of cultivated surfaces to accommodate a rural workforce growing by an annual 2.5%. 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, climate risks, as well as farmer's risk aversion strategies. While rice is the 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 rapidly. In the SACCC target areas most agri-businesses comprise small scale Vietnamese, Thai and Lao traders, with some processing facilities. These traders work often through middle-level intermediaries, operating between farmers and traders.

3. **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 41% of children under the age of five in the rural areas that suffer from

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<sup>10</sup> The most recent survey data available for estimating MPI figures for Lao People's Democratic Republic were collected in 2006. UNDP Human Development Index Report 2013

<sup>11</sup> UNDP Human Development Index 2013

<sup>12</sup> Key characteristics of the target ethnic groups are summarised in Appendix 1

chronic malnutrition. 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 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.

4. **Climate Change.** 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 region<sup>13</sup>. 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 affected about 200,000 people and killed 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 Xiengkhuang, Xekong and Attapeu, while those with a larger proportion of villages at high risk of droughts are Savannakhet and Huaphanh. Moreover, as time passes the risks tend to expand from north to south.

5. During 1966 to 2009, 36 climate-related hazards in Lao PDR were classified as global hazards. Flooding was the most frequent hazard, followed by health epidemics, storms and droughts<sup>14</sup>. About three-fourths of the disasters in Lao PDR during this period were climate-related. Assessments show that about half of these hazards occurred between 1966 and 1992, a period of 26 years, while the other half occurred between 1992 and 2009, a period of only 17 years. Thus, the frequency of the climate related hazards in Lao PDR increased from about once every two years before 1992 to every year or even twice a year after 1992. Floods normally occur from May to September when monsoon rains accumulate in the upper Mekong River basin, while droughts happen between November and March. Flash floods in the northern mountainous areas also are common. Areas affected by floods also grew at an accelerated pace during the last two decades (1992-2009). Areas flooded before 2002 were less than 1,200 sq.km, while in 2009 alone more than 2,500 sq.km of land was flooded<sup>15</sup>. The country is also very vulnerable to droughts. Five droughts have affected the population over the past 40 years. Occurrence of drought has also become more frequent. It is estimated that around 188,000 households in Lao PDR are at risk of food insecurity caused by drought.

6. 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

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<sup>13</sup> Yusuf A. A. and Francisco, H. A., 2009, Climate Change Vulnerability Mapping for Southeast Asia, IDRCSIDA-EEPSEA-CIDA.

<sup>14</sup> Based on OFDA/CRED International Disaster Database.

<sup>15</sup> Ministry of Natural Resources and Environment, 2013, Second National Communication on Climate Change

35 -41%, while minimum monthly flows will drop by 17-24% by 2100, further exacerbating flood and drought risks. All models, including those focusing on regional patterns, predict an increase in magnitude and frequency of extreme events.

7. **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. 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 mainstreaming; 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. 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 and 9%. 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.

8. **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. 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.

9. **Policies for rural growth.** The Government of Lao PDR (GoL) 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 *7th NSED* (2011-2015) include: (i) ensuring an annual GDP growth rate of at least 8%, an annual growth in the agriculture sector of at

least 3%, and a GDP per capita of at least USD 1,700; (ii) achieving the MDGs by 2015 and reducing the proportion of poor households to less than 11% by 2015; (iii) enhancing international trade and economic cooperation and achieving full international integration; and (iv) ensuring that 65% of the total area of the country is under forest. 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 agro-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 agro-ecological potential. With regard to *land*, the current framework focuses on community-based PLUP and on land titling as the two main instruments 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.

10. **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).

11. 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 7th National Socio-Economic Development Plan (2011-2015), 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.

12. **Land and forest policy allocation.** Community forestry supports local level CC 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 1990s<sup>16</sup> 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 DAFO (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 finalized in 2015.

13. **Socio-economic Development Planning.** The Ministry of Planning and Investment (MPI) guided<sup>17</sup> 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. Planning at district level in Laos has recently been strengthened through the GIZ financed "Land management – Rural Economic Development (LM-RED) project and a Finnish financed initiative that supports this process, focusing on developing related principles on land use planning at local level.

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<sup>16</sup> 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

<sup>17</sup> Provincial Departments for Planning and Investment guide district planning activities.

The UNDP/UNCDF Governance and Public Administration Reform (GPAR) Component has also been helping to develop and strengthen the district planning process. The GPAR has piloted a District Development Fund (DDF) mechanism in Salavanh province since 2005 and further expanded it to Oudomxay, Houaphanh, Xiengkhouang and Xekong.

## B. Rationale

14. While agriculture remains the primary source of employment in the rural areas of Lao PDR, overall sector productivity is low as indicated by an income per capita in the farming sector, which is less than half the national average. Most of the 650,000 farming households are engaged in subsistence and low productivity activities, which suffer from a low access to inputs, lack of appropriate technologies and crop selection, limited access to finance and other support services, limited organization among farmers, limited access to markets and farmer's risk aversion strategies. Furthermore, although the Lao PDR moved from a rice deficit situation in 1996 to surplus production in 2006, it is estimated that only about one third of the rural population is food secure. Their vulnerability to climate change impacts further undermine their food and nutrition security and their potential to produce marketable surpluses, the latter being the primary thrust of the associated FNML.

15. The Lao PDR is one of the countries' in the SE Asia region most vulnerable to climate change (CC)<sup>18</sup>. This is mainly due to its high dependence of climate-sensitive natural resources and its low adaptive capacity. The key 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. Rising temperatures will also increase the incidence and range of pests and, when combined with decreased rainfall and increased demand, higher temperatures will also present new challenges related to water storage or transfer mechanisms. As acknowledged in the NAPA findings<sup>19</sup>, the Southern provinces of Lao PDR are particularly vulnerable to drought and the severity and frequency of this risk is highly likely to increase as a result of climate change<sup>20</sup>. The FNML area has been identified through the NAPA process as one likely to be most heavily affected by drought (all zones); erosion due to increased run-off caused by land use change; floods along the Mekong, Sedon, Sekong and their major tributaries (lower catchments); and flash floods and landslides in the upper catchment and parts of the middle catchment zones. Expected increases in mean temperatures together with decreasing dry season rainfall will very likely lead to longer and more severe drought events. More recent analysis carried out by the MoNRE points towards future delays in the onset of Monsoon events. The observed trends include: an increase in the number of drought and flood events over the past three decades; and an average increase in temperatures of 0.1 to 0.3 degrees C per decade for at least the past 5 decades (World Bank Climate Knowledge Portal). These trends also lead to an increased risk of fires likely to affect all forest and forest agro-ecosystems and contribute to food insecurity due to a loss of NTFPs, grazing area, cash crops and staples. However, the way these threats are brought to bear will be highly localised, depending on the topography of the sub-catchment zones, soil characteristics, land use and land cover in those zones, as well as changing rainfall and temperature patterns.

16. Climate change is already negatively impacting smallholder agricultural production and productivity, necessitating urgent and effective measures for building adaptive capacities, methods and technologies. Poor, often ethnic people households, are the most vulnerable to CC impacts, lacking the resources, services and systems that will enable them to cope and adapt. To respond to these challenges, the government has developed a long term vision for addressing negative CC impacts, detailed in Strategy on Climate Change of the Lao PDR. To this end, capacity must be strengthened at individual, household, community, local institutions and government ministry levels to ensure effective action is taken to reduce vulnerability to climate shocks.

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<sup>18</sup> Yusuf A. A. and Francisco, H. A., 2009, Climate Change Vulnerability Mapping for Southeast Asia, IDRCSEA-EEPSEA-CIDA.

<sup>19</sup> (Figure 9, Page 33, NAPA report, 2009)

<sup>20</sup> Joint MAF, WREA, IUCN Studies, 2005

17. While a good body of adaptive technologies for climate change amelioration exist in the Lao PRR, they are not properly documented or disseminated and there is currently no effective platform/channel for this. Government technical and coordination capacities at provincial and district levels are also insufficient for building strong CC adaptive capacity amongst smallholder farmers. The FNML programme takes into consideration climate change related issues but its financing is insufficient to address the range of shocks and stresses experienced by community and household.

18. The focus of the SACCC will be to build the adaptive capacity of communities and institutions to better contend with CC risks. The SACCC approach involves building knowledge and methodologies for managing climate change risk including CC impact knowledge, vulnerability assessment, participatory planning, landscape analysis, and knowledge management, and facilitating adaptive change through strategic co-financing of establishment costs for climate resilient livelihoods at household and community levels. The SACCC, which is a component of the FNML, seeks to reduce the CC vulnerability and raise the resilience of highly vulnerable communities and households by strengthening the natural, physical, social, human and financial capital of their communities. In this regard, a resilient household is anticipated to exhibit the following characteristics: (i) diversified livelihood and income streams; (ii) improved natural resource and risk management based on better access to knowledge on adapting to CC; (iii) membership in social networks, particularly farmer/community groups; (iv) protection from some climatic risk as a result of community infrastructure; and (v) direct engagement in village level planning.

19. In 2009, Government revised its poverty targeting focus from the district level to kum ban and household levels<sup>21</sup>. The SACCC will adopt a similar targeting focus for climate change adaptation. Adaptation strategies will increase food and livelihood resilience to prevailing shocks/stresses through improved farming capacity, community-based action and access to climate adapted infrastructure, all linked to FNML support to agriculture extension, credit and value chain access

20. This approach is consistent with the Lao PDR Strategy for Agricultural Development (2011-20) focus on transferring modern technologies for increased productivity, promoting farmers' organisations, agriculture diversification, better natural resource management and improved, climate-resilient agronomic practices. It also aligns with the National Climate Change Strategy 2010 including support for measures to achieve low-carbon economic growth, increased the resilience of natural resources to climate change and its impacts, enhanced cooperation and partnerships with national stakeholders' and improved stakeholders' public awareness and understanding about climate change vulnerabilities and impacts.

## **II. Component description**

### **A. Component area and target group**

21. The SACCC targets the five FNML districts that are located at the south-eastern tip of Laos and along the Vietnamese border: Phouvong and Xansay (Attapeu province); Dakcheung (Xekong province); and Ta'Oy and Samuay (Salavanh province). With the exception of Phouvong, all the target districts are primarily upland districts.

22. All of the target districts belong to the 40 districts (out of 141) that were identified as very poor and high priority by the National Growth and Poverty Eradication Strategy (2003). Data collected by the design mission at district level further indicates that: (i) about 50% of Phouvong households are poor; (ii) over two-thirds of households in the other districts live below the poverty line; and (iii) in Ta'Oy and Samuay, all of the villages are poor. With the exception of Phouvong, all the target districts are upland districts, where the rural poor are confronted by additional constraints resulting from remoteness and isolation. They are home to a diversity of ethnic groups, who live in small, scattered settlements, and have limited connections to the main road networks and to social services, including

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<sup>21</sup> Decree #285/PM on the Poverty Criteria and Development Criteria (2010-2015) of October 13, 2009.

water. Isolation is further reinforced by lower education, illiteracy and a lack of Lao language skills. Xekong and Attapeu provinces are two of the three most flood prone provinces in Laos.

23. **Target population and expected benefits:** Ethnic people represent the majority of the population in all SACCC districts. The main target group will be within the population of 175 FNML target villages. Building off the vulnerability assessment methodologies and field work currently being developed by the LDCF 2 project, these villages and their respective kum bans will be ranked for climate change vulnerability based on, *inter alia*, (i) Kum ban poverty data as specified in Government's Decree #285/PM, specifically those related to poverty incidence, access to a road and access to water; (ii) vulnerability to climate change; (iii) commitment of leadership; (iv) the village natural resource base; (v) level of on-going support projects. The SACCC will not work with villages scheduled to be resettled and will prioritize the most vulnerable villages. Women constitute a specific target within the main target group (particularly female headed households) to ensure that they get equal and priority access to SACCC services and benefits. In order to ensure Gender Equality and Social Inclusion (GESI) dimensions, women will have their own representative groups in instances where that cannot secure at least 50% of representation in committees at the village level. The SACCC will also empower women within the family using the so-called "household approach", which is being considered as a tool under the emerging FNML gender strategy. In addition to promoting the "household approach" to women's empowerment, the FNML/SACCC will draw on recent positive experience with the Poverty Reduction Fund (PRF) II project on increasing women's participation and influence in community-based participatory planning. Such measures include equal gender representation on the PRF village committee, both separate and joint meetings of men and women in the decision making process with a quorum of 40% of village women for women's meetings, 60% of approved activities must be a priority for women, and a weighted voting system that strengthens the voice of poor households.

24. **Targeting and Gender Mainstreaming Strategy.** The FNML Gender Action Plan (GAP) contains specific measures designed to promote gender mainstreaming, to secure women's participation project activities and to help them gain equal access to agricultural support and financial services as well as playing an active role in farmers' organisations (FOs). Furthermore, FNML supports the Lao Women Union (LWU) in building capacities to pilot the Gender Action Learning System (GALS) aimed at ensuring women and poor inclusion. Related, FNML targeting approaches relevant to CC adaptation include:

- *village programming:* an initial participatory village livelihoods analysis will identify best options for using village natural resources for food and for market-oriented production;
- *remoteness:* in the uplands in particular, many villages have difficult road connections and are accessible only in the dry season. The GAP includes specific measures to address the constraints of isolation and difficult access that affect most of the upland villages, including the promotion of farmer-to-farmer exchanges, in combination with farmers' groups, to compensate difficult outreach by the extension services;
- *inclusive farmers' groups:* measures will be taken to ensure that farmers' groups (FGs) are inclusive, i.e. that they include women and members of poorer households in their membership as well as in their decision-making structures. Annual FG capacity assessments and development plans will take into account specific challenges and constraints faced by women and by poorer smallholders and will contribute to making participating FGs more inclusive and gender-balanced organisations that respond to members' requirements;
- *ethnicity:* the FNML pays particular attention to the different ethnic groups to ensure that they are effectively reached by the Component. DAFO village level Community Development Officers will be supported by the Regional Programme Coordination Office (PRCO) team/Participatory Learning Consultant to develop appropriate messaging and participatory materials.



- *multi-stakeholders' platforms*: FNML promotes multi-stakeholders' platforms and ensure that they are inclusive of women and the poor, and that issues related to their inclusion and specific constraints are addressed in practical ways as part of the regular consultations;
- *sustainable agriculture intensification*: Support for the development of appropriate technologies and practices specific to the agro-ecological conditions of the southern area, such as soil and water conservation, will help in reducing household vulnerability to climate risks and fertility loss;
- *labour*: the identification of climate change adaptation processes to be adopted by the poorest households will give due consideration to labour availability, which is a main constraint of poorer families;
- *implementation arrangements and capacity building*: The FNML Component Coordinator bears overall responsibility for the implementation of the GAP. Specific related implementation responsibilities are reflected in detailed job descriptions of district implementation teams, and in the terms of reference for extension and development support service providers. Capacity building tools are being developed with ethnicity and literacy issues in mind and peer-to-peer exchanges between representatives of the same ethnic group are being promoted. With villages where gender relations are entrenched, additional women only groups will established, allowing women's voices to be heard and confidence building measures to be integrated into group work;
- *knowledge management and institutional support*: FNML Monitoring and Evaluation (M&E) and Knowledge Management (KM) Officers ensures that the M&E/KM system allows the monitoring of inclusion, gender and ethnic aspects, and that achievements and lessons learnt are made available to multi-stakeholders platforms and programme implementers to support regular analysis, improved performance and annual programming of related activities. The Knowledge Management Officer pays particular attention to ethnic groups' traditional knowledge to adequately inform Component implementation.

25. In relation to the SACCC, ethnic women practice traditional swidden agriculture. If swidden is limited or decreases through the introduction of new land-use practices such as irrigation, CBFM and natural manuring, women may be affected through a perceived reduction in their role in the community. Agroforestry development in areas where women have traditional usufruct rights could also disturb access rights leading to inequalities. The SACCC will ensure through appropriate inclusive approaches, e.g. contracts with women user groups that women are not left behind through the introduction of new land use strategies.

## **B. Development objective and impact indicators**

26. **Component objectives and outcomes.** This component contributes to the goal of the FNML, namely: *To contribute to the reduction of extreme poverty and hunger (MDG 1) in Lao PDR* and the FNML Programme Development Objective (PDO): *To ensure sustainable food and nutrition security and income of households in the target area.* The main SACCC impact indicators at the development objective level will be:

- 4,200 direct beneficiary HHs moved down the CC vulnerability scale by at least one step (disaggregated by gender and ethnicity of HH-head);

27. It is estimated that about 40% of the ASAP component targeted HH will also benefit from FNML interventions. Recognizing that ASAP investments will also contribute to reduce poverty, the overall FNML target for reduced poverty can therefore be increased from 9,450 HH to 12,000 HH.

## C. Component

28. The Component will have two main Outcomes; (i) Enabling environment for climate change adaptation strengthened; and (ii) Community-based Adaptation Investment Plans sustainably implemented. These outcomes are closely interlinked and phased across the programme life. Outcome 1 activities focus on building capacity within the participating intuitions for inclusive, scalable, CC adaptation amongst the most climate vulnerable communities in Lao PDR. Outcome 2 activities focus on household and community-based investments for CC adaptation, including their operation and maintenance.

### Outcome 1. Enabling environment for climate change adaptation strengthened

29. The objective of this outcome will be: a scalable agriculture sector climate change adaptation management framework operating with participating institutions, districts and communities. This outcome will have four Outputs: (i) Participating technical ministries and districts are climate informed; (ii) Participatory Local Adaptation Investment Plans prepared; (iii) GIS based planning piloted; and (iv) Climate change adaptation knowledge enhanced.

30. Output 1.1. Participating technical ministries and districts are climate informed. The Policy Think Tank under the National Agriculture and Forestry Research Institute (NAFRI), the Forestry Policy Research Centre (AFPRC) and selected staff from Ministry technical departments and CC-related development projects will conduct, with technical support, an initial round of seminars at national and provincial levels to inform MAF management and staff of the current and projected impact of climate change on agriculture and forestry in Laos and on means to redress that impact through adaptive measures.

31. A five day training at each level will focus on, *inter alia*: (i) procedures for climate vulnerability assessment; (ii) participatory scenario development; (iii) an introduction to GIS-based landscape analysis; (iv) building and enhancing adaptive capacity of vulnerable communities; (i) integrated climate adaptation technologies; (vii) environmental protection through better management practices of ecosystem underpinning water supply and protecting infrastructure (water and climate regulation, sediment retention, provision of habitat for biodiversity, etc.. improve land cover, enhance infiltration, reduce soil erosion, improve productivity, etc.); (viii) gender equality and social inclusion; (ix) empowering vulnerable communities; and (ix) group establishment and dynamics. At district level, participants will include DAFO, DoNRE and DPI staff District Development Support Committees and District Development Support Teams (DDST) (see para. 34 below). Specific CC adaptation and associated GESI capacities in the MAF Department of Agricultural Land Management (DoALAM), Department of Agricultural Extension and Cooperatives (DoAEC), Department of Livestock and Fisheries (DoLF), Department of Forestry (DoF) and Department of Irrigation (DoI) will also be strengthened.

32. Building off the FLNM PLUP and MoNRE/LDCF 2 vulnerability assessment methodologies and field programmes, district and provincial officials will, with technical support, be thereafter engaged in an action based learning process of assessing/updating climate change vulnerability and adaptive capacity at district and kum ban levels in their provinces. Vulnerability at district, kum ban and village level will be assessed on the basis of, *inter alia*, (i) the extent to which systems (human and social, physical and financial, and natural / environmental) are exposed to climate change; (ii) the extent to which systems are sensitive to this exposure; and (iii) the capacity of systems to adapt to exposure and sensitivity . Systems are understood as providing a 'gateway' to those services that enable households and communities to adapt to the impacts of climate change. The determination of kum ban vulnerability will be assisted on a pilot basis by the development of an appropriate GIS database (see Output 1.3).

### Output 1.2. Participatory Local Adaptation Investment Plans prepared.

33. This output, building off FNML PLUP experience and results, will implement participatory, community-based climate resilient planning, focused on sustainable small-scale water, ecosystem management and renewable technology investments in CC vulnerable kum bans and villages.
34. Prime Minister's Decree 135/PM 2002 requires local development planning to be undertaken at provincial, district and kum ban (village cluster) levels on a medium- and short term basis, guided by District Socio-Economic Development Coordination Committee (DSEDCCs) for inclusion in annual investment plans. The DSEDCC brings together all key agencies to facilitate local planning, budgeting and budget implementation. They play a central role in this process, identifying community needs and integrating their findings in annual and five year action plans. The work of the DDSPs is facilitated by DDST. The SACCC will reinforce the capacity of DSEDCCs to ensure that climate, environmental and social risks are properly considered when identifying and evaluating infrastructure projects for implementation.
35. Building off the MoNRE national composite index for village level vulnerability and adaptive capacity, and the aforementioned DDF planning process, the LDCF2 vulnerability assessment process and community-level vulnerability risk assessment<sup>22</sup> and participatory scenario development<sup>23</sup> planning tools, the SACCC will assist vulnerable communities to identify and implement LAIPs.
36. To strengthen community capacity to determine its own climate-adapted future, the SACCC, will train identified vulnerable communities to: (i) assess their traditional CC knowledge and needs; (ii) assess the impacts of identified needs on changes in seasonal and gender specific labour demands; and (iii) on the basis of this analysis, prepare a LAIP, which will be integrated into the FNML district plan. Communities will, thereafter, provide implementation support for the construction of small-scale public/community infrastructure investments and take responsibility for their operation and maintenance, including the establishment of user groups and a sustainable user fee structure. Beneficiaries will also monitor outputs and outcomes at the community level. Communities will achieve this by developing an understanding of: long term aspirations; vulnerable groups; vulnerability to CC; economic opportunities; local institutions; power dynamics; and gender tensions and relations and norms. Copies of LAIPs, which will be an integral part of the FNML district plan, will be kept at community, kum ban, and district and FNML levels. At community level they will need to be accompanied by more pictorial descriptions given the frequently low levels of literacy and Laotian language skills in upland villages, particularly amongst women.
37. Traditional knowledge is the basis for local-level decision-making in many rural communities. In evaluating LAIP opportunities, the SACCC will seek the contribution of ethnic peoples' knowledge to climate change adaptation, which, in detecting, forecasting and adapting to change, can play an important role in minimizing the impact of climate change and natural disasters to local people. In so doing, the SACCC will target women, who are particularly known to possess traditional knowledge which helps to maintain household food security, notably in times of drought and famine traditional knowledge has value not only for the culture in which it evolves, but also for scientists and planners striving to improve conditions in rural localities. In this respect, the SACCC will include the use of participatory action research to further test traditional practices identified through the participatory

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<sup>22</sup> Vulnerability and Risk Assessment (VRA) allows for determining: (i) Who are the most vulnerable (youth, elderly, women and men); (ii) Why are they vulnerable (exposure to climatic events, limited access to resources and services etc.); and (iii) What approaches and interventions will reduce their vulnerability (actions that increase adaptive capacity).

<sup>23</sup> Participatory Scenario Development (PSD) is a process of engaging key stakeholders in an exercise of envisioning future vulnerability under different climate change scenarios. Using current information and assumptions about future climate change trends, conceivable future scenarios are developed together with stakeholders for exploring development choices and pathways. The use of PSD as a planning tool is to allow for consideration of a variety of possible futures that acknowledge uncertainties in the system rather than to focus on the accurate prediction of a single outcome. This allows for creating locally relevant responses to climate change that are a combination of development choices, adaptation options and local capacities.

community-based Participatory Scenario Development (PSD) and Vulnerability and Risk Assessment (VRA) processes.

38. Women's inclusion in community planning in Lao PDR is a particular constraint. Where the CC vulnerability and adaptation planning process cannot secure equitable representation for women in village-level planning meetings, it will, with the assistance of the Lao Women's Union, establish a parallel planning process for women in the community. Recognising that this is a widespread issue amongst the ethnic populations that form the majority of villages in the Programme area, and especially in more CC vulnerable areas, the SACCC, to improve women's empowerment within their home environment and, through that, within the community, will also promote the "household methodologies" approach (currently being explored by the FNML<sup>24</sup> together with the "3 Good Model") where all adult household members (husband, wife and older children) participate in setting the household vision and planning how to achieve it together.

39. The SACCC will review LAIPs with communities to identify location specific particularities of the proposed investment, integrating infrastructure with complementary ecosystem management solutions and to ensure gender-equal access to programme resources that address the vulnerabilities and adaptation needs of all ethnic groups. Based on this analysis the underlying causes of problems, as identified in the planning process by communities, can be analysed and appropriate adaptation investment and natural resource protection and management measures can be designed. The assessment will, *inter alia*, disaggregate male and female's information at household level and will collect an inventory of family assets, data on main sources of income, and other socio-economic information in order to analyse patterns of socially differentiated access to infrastructure and other livelihood assets. Facilitators, covering a cluster of 2-4 kum bans will be employed to facilitate this process.

40. Output 1.3. GIS based planning piloted. This output will strengthen MAF and NAFRI GIS-based capacity to support climate vulnerability assessment at provincial, district and kum ban levels and to pilot a sub-watershed/landscape based approach to community-based adaptation investment planning. To allow for a more integrated approach at the district level, the SACCC will pilot a sub-watershed or landscape approach in one district in each province, using GIS-based mapping, which can further inform the kum ban/district climate change adaptation investment planning process on upstream and downstream linkages between villages, kum bans and districts. Further to the piloting of GIS-based mapping, the SACCC will support the establishment of a GIS-based data management system within the MAF and NAFRI and at Provincial Agriculture and Forestry Office (PAFO) levels, which will be aligned/integrated with existing systems in the country, to support planning and monitor of impacts.

41. Pilot integrated landscape level planning supported with GIS and other geospatial tools will contribute to LAIP preparation. The adoption of geo-spatial planning tools will enable not only to locate standard features such as roads, villages, towns, markets, natural resources, and flood, drought and landslide prone areas, but also, to geo-reference vulnerable households, villages, and kum bans. Use of these tools will help transcend the village/kum ban boundaries and to gain a sub-watershed or landscape level view. While the potential uses of these tools are many, the SACCC will, initially, focus on hydrology and soil nutrient cycling at sub-watershed level, as they constitute the main constraints to agricultural productivity in southern Laos. A gradual progression into more sophisticated areas of analysis will be possible once the necessary capacities and skills are built. The final design mission will explore the inclusion of GIS-based monitoring of CC conditions and impacts at community level, including local weather conditions, however, this field may already be adequately covered by other existing and planned projects. The GIS system will also be used for monitoring purposes and surveys.

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<sup>24</sup> The principle ethnic groups in the project area include the Blao, Katang, Katu, Pako, Ta-Oy, and Trieng, all of whom fall under the Mon-Khmer linguistic family

42. The SACCC will engage national GIS database specialists to expand the adoption/use of the climate change adaptation information planning tools and databanks developed under the LCDF project at the PAFO and Provincial Office of Natural Resources and Environment (PONREs) in Attapeu, Xekong and Salavan provinces. At district level, data in all fields is fragmented amongst different agencies and projects, hampering integrated understanding and analysis in the light of climate change. Initially in one pilot district, the SACCC will assist the DDST to integrate data gathered for Programme purposes (re-analysed data, community PSD/VRA data) into a GIS based databank. In line with the LCDF 2, it is recommended to use the "Quantum GIS tool" ([www.qgis.org](http://www.qgis.org)) since this tool, introduced by a GIZ Land Management and Rural Economic Development project (LM-RED), has been adopted by the Ministry of Planning (MPI) to support.

43. At NAFRI, the SACCC will build on the work initiated under the UNDP managed Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS) project including (i) GIS-based scenario development for climate change in Lao PDR and on the IRAS outcome; and (ii) a GIS-based Knowledge Platform on CC impacts in Lao PDR on agricultural production, food security and vulnerability, and local coping mechanisms.

44. Output 1.4. Climate change adaptation knowledge enhanced. This output will build the capacity of NAFRI AFPRC to collate, analyse, package into knowledge products and disseminate climate change adaptation knowledge in Lao PDR. The SACCC will establish a knowledge exchange platform working under the Agriculture and Rural Development Sector Working Group. This process will provide a practical avenue for collaboration and learning, thus directly contributing to more effective coordination, coherent messaging and implementation of government policies on climate change adaptation. Good practices will be identified and scaled up within the FNML and other programs. This will include developing linguistically and culturally appropriate learning approaches that take into account low literacy rates of ethnic people, especially women. This information will be accessible through a NAFRI hosted database linked to and supported by the World Overview of Conservation Approaches and Technologies (WOCAT).

45. WOCAT is an established global network of Soil and Water Conservation (SWC) specialists based in over 50 research institutions around the world, including in East and Southeast Asia, dedicated to sustainable land management (SLM). The overall goal of the WOCAT Network is to unite the efforts in knowledge management and decision support for up-scaling SLM among all stakeholders (<https://www.wocat.net>). WOCAT would be contracted to familiarise MAF, MoNRE, and NAFRI staff at national, provincial and district level with the WOCAT toolkit, including for sustainable watershed management and mapping and climate change and with their online databases.

46. Through the Knowledge Exchange Platform, gaps in agriculture and adaptation knowledge will be identified for further testing of approaches and technologies and for financing through the Adaptation Innovation Fund (see Activity 2.1.3). An effective M&E and information management system, based on initial IRAS experience, will be elaborated for assessing these on-farm trials and for disseminating best practice.

47. Knowledge sharing is a continuous process and an integral part of the programme management work. The SACCC will implement a dynamic programme of information sharing including (i) close collaboration with the Environment Sector Working Group, the Agriculture and Rural Development Sector Working Group and other development partners. (ii) intra- and inter-district study tours, discussion and workshops for programme and line ministry staff at national and district level to evaluate and discuss and promote CC initiatives; (iii) different forms and formats for dissemination of results including farmer-to-farmer extension, learning events (workshops, technical "fairs" & exhibitions, etc.), field visits and study tours for technical staff and decision-makers, and the costs for presentations of results at national and regional conferences and events. The FNML Programme Regional Coordination Office (PRCO) will prepare a series of reports that capture and manage the SACCC development. These will include:

- *Documenting lessons learnt, best practices and cases of success: The FNML M&E and KM officers, with NAFRI AFPRC and WOCAT support, would collect all available relevant information to document lessons learnt, best practices and cases of success for CC adaptation. It could be based on information collected from: participatory adaptive research, progress reports, meetings and interviews, monitoring and evaluation reports, output evidence provided by targeted groups, market and value chain entities and other involved parties. Specifically it will include: (i) scientific reports; (ii) case studies for local and national stakeholders on adaptation options in agriculture and natural resources management to raise awareness and build adaptive capacity; and (iii) how adaptation and resilience thinking could be better integrated into value-chain analysis and market-based agriculture under the FNML*
- *Developing and delivering a lessons learnt study: Based on the information collected along programme implementation, the FNML KM Officer, with NAFRI AFPRC and WOCAT support, would develop both a mid-term and an end of programme CC Adaptation Lessons Learnt Report, analysing the documented lessons learnt, best practices and cases related to adaptation methodologies and approaches for IFAD and other international stakeholders that could inform future project and programme design. It would be first submitted to IFAD and, once feedback has been incorporated, if any, the report would be shared widely, particularly through on-line platforms.*

## **Outcome 2. Community-based Adaptation Investment Plans sustainably implemented.**

48. The objective of this Outcome will be: climate informed and gender-sensitive natural resource management systems and structures established. The Outcome will have one Output: (i) Climate change adaptation fund disbursed.

49. **Output 2.1. Climate change adaptation fund disbursed.** The focus of this output will be on financing public and collective good climate resilient adaptation infrastructure and community and household adaptation needs, identified through participatory, community-based needs assessment verified at kum ban and district level. Where practicable, Outcome 2 financing will be delivered through the DDF (see para. 13). The DDF facility in Lao PDR implemented through the MoHA and MoF, is conceived to be delivered in a variety of forms: Basic Block Grants (BBGs), Operational Expenditure Block Grant (OEBGs) and Social Protection Block Grants (SPBGs). In all of its forms, the DDF facility is intended to operate as a stimulus and foundation for inter-governmental fiscal transfers (IGFTs). The DDF modality aims to build and strengthen the capacity of village and district authorities for participatory planning, local budgeting/financing and programme and financial management. It aims to ensure effective, accountable and transparent public service delivery through participatory monitoring and evaluation in the governance system. Thus, DDF serves as a strategic capacity development tool, and is more than an investment tool for poverty reduction. In Salavanh and Xekong, the SACCC will build off the district development planning process supported by MoNRE and MoHA through the LDCF/GPAR, projects, which have provided a climate smart focus to DDF financing. In Attapeu province, it will need to build climate smart DDF capacity. Communities would be empowered to monitor small-works contract implementation, in line with current FNML procedures. The infrastructure developed through this Output will primarily be community owned collective goods, for which the community will be responsible for managing and maintaining, however, some investments at vulnerable household level will be private goods (e.g. fuel efficient stoves, biogas plant, etc.) Three Activities will be co-financed under Output 2.1:

50. *Activity 2.1.1. Community-based small-scale water infrastructure investments operational.* Poor infrastructure development in agricultural production, accessing markets and the supply of water for irrigation and domestic purposes collectively contribute to high poverty rates and the low development progress in Lao PDR. Only 17% of national rice production is derived from irrigated fields along the main streams. There is potential to increase the production of irrigated rice, especially through small-scale irrigation in uplands, which currently plays a minor role. This could include small scale stream

and spring diversions and water holding ponds, irrigation canals and potable water supply. Recent experience in investment in small-scale irrigation, including many small schemes developed by local communities has been disappointing. These schemes, often constructed without government or donor support, using basic techniques and standards and with poor maintenance practices, have been found to be particularly vulnerable to climate impacts. Over the last 3-4 years many of these small irrigation schemes have not been in operation due to drought and damage caused by flood and storm impacts during typhoon Ketsana in 2009. This situation is aggravated by (i) the lack of local level water consumption assessments which might inform the introduction of appropriate adaptation measures; and (ii) the limited capacity of district planning officials and decision makers to identify areas that are vulnerable to climate hazard and to prioritise, design and 'budget for enhanced adaptation/resilience measures.

51. New and rehabilitated small-scale irrigation infrastructure investment schemes, supported by environmental protection through better management practices of ecosystem underpinning water supply and protecting infrastructure, will be identified and prioritized within the Participatory LAIPs developed under output 1.2, with engineering supervision provided by UN Habitat, and plans verified by capacitated kum ban officials and DSEDCCs. Where need is identified and not met through the FNML, safe potable water supply would also be funded. Labour intensive vegetative and biological measures will be used to protect irrigation structures from slope instability in hilly areas. The SACCC would assist beneficiaries to secure permanent land use rights for irrigated areas.

52. The participatory LAIPs will be integrated at the kum ban level through an inclusive process led by elected village representatives. Emphasis will be placed on the provision of community-level facilitation and the regular and rigorous monitoring and evaluation of community planning processes. Attention will be paid to strengthening villagers' participation in sub-programme planning, implementation and monitoring with the support of SACCC kum ban facilitators. The LAIP planning process will facilitate selection of investments that are profitable, responsive to specific community needs and take into account local maintenance capacities. The SACCC will finance up to 75% of community infrastructure costs, with 25% in-kind beneficiary co-financing, to a maximum of LAK 80 million (USD 10,000) per village (including in-kind contribution). Where sub-water catchment/landscape approaches require higher levels of cross-village investment, community investment fund allocation could be increased by up to 100%. Up to 1,800 vulnerable households in up to 100 villages are expected to benefit from small scale irrigation development.

53. To ensure sound technical quality of SACCC investments the SACCC will (i) employ UN Habitat to oversee the design and construction of all infrastructure contracts; (ii) utilize appropriate sector standards to the extent these are available, with a clear focus on critical design elements which cannot be compromised; (iii) support harmonization of SACCC investment planning and budgeting with sector investment and maintenance planning at district and provincial, and in accordance with associated schedules; (iv) provide additional training to supporting private engineers and kum ban facilitators, as well as to relevant government staff, including district engineers; and (v) intensify monitoring and external evaluation of technical quality, efficiency, sustainability and outcomes.

54. A Small Grants Manual, developed as part of the FNML Programme Implementation Manual (PIM), will guide the implementation of this activity. Operation and Maintenance (O&M) will follow the current government practice implemented under the FNML (trainings of various stakeholders, free of charge service for the first three months and payment of monthly fee (of about USD 1) by villagers).<sup>25</sup> Wherever possible, local labour, particularly youth, will be used for works construction, supported by vocational training when required. This activity will be informed by and be compliant with the the Government National Water Resource Policy and Action Plan (2011 to 2015) and the National Strategy for Rural Water Supply and environmental health (2011-2015). As per Government's procedures a rapid environmental assessment will be conducted with the support of UN-Habitat

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<sup>25</sup> Detailed procedures are described in the Nampapa (Lao Water government agency) manual prepared with the support of UN-Habitat)

before construction of each small-scale water infrastructure and a year after infrastructure's completion.

55. *Activity 2.1.2. Community-based Forest Management Programs operational.* Community involvement in managing forests and natural resources has been recognized and strongly encouraged by the Government of Lao PDR, and the Forest Strategy 2020 has specific strategies and programmes for its implementation, however, the overall legal framework<sup>26</sup>, institutional support capacity and consultative process for community based forest management are weak. Historically, villages in Lao PDR have a system of traditional ownership of the land and forest resources within village boundaries. The State legally recognizes the customary user rights of villages based on their traditions within the village boundary. Village authorities have the right and duty to enact local rules that are tailored to specific traditions and customary use, and have the right and duty to regulate land use within the village boundary.

56. The SACCC will, initially in three pilot districts, assist interested villages having village forests to plan and implement community-based forest management (CBFM) programmes, to acquire collective forest use rights for such areas, and invest in agro-forestry reinforcement of forest areas for income generation. Where village forestry areas are co-joined at kum-ban level, the plan will be prepared at that level with the support of GIS-based landscape analysis. An assessment will be made of existing resources and situational analysis of development trends over the past few years. Designated village production and use zones of the forest will be separated into management blocks with homogenous characteristics. A simple participatory forest inventory will be used for resource assessment, in which villagers and local DAFO staff work together to identify the current tree species composition in the blocks, the distribution of stem diameters, and the condition of natural regeneration. A participatory planning exercise will facilitate decision making by villagers on local tree species that are most valuable to them. For each village production forest area, villagers will then decide on detailed purposes of management such as land protection for water management, forest reinforcement for NTFP production, firewood collection, bamboo forest, fisheries, etc.<sup>27</sup>. Targets and management objectives will be agreed by the entire population of the respective village or cluster area. Based on these objectives, CBFM committees, established through procedures consistent with village public administration and traditional management procedures, will be assisted to prepare simple, equitable, gender sensitive rules for forest use and biodiversity protection and 3-year plans for forest utilization, including investment in the reinforcement of degraded forest through income generating agro-forestry/fishery/ecotourism measures.

57. Trained kum ban facilitators will coordinate community meetings to discuss regulations, laws, and decrees relating to the management of forest and land resources, to explain the importance of forest resources, to learn about existing forest and land conflicts, to talk about forest management issues including the impact of *swidden* agriculture, and to discuss the role of women in village development. Communities will elect forest management committees (or use existing Land Use Planning/Land Allocation committees) that will establish rules for forest economic use and biodiversity protection. The DAFO will District Forest Unit be trained in using participatory approaches and will collect forest and land related information, measure permanent public land areas, survey village boundaries, classify forest land, create maps and, where not already existent, prepare necessary documents for community management.

58. Following the acceptance of the CBFM plan at District level, CBFM committees will be able to access SACCC co-financing for agro-forestry investment up to USD 9,000 in 2 annual tranches of up to USD 4,500. CBFM committees will be expected to contribute at least 25% of the investment cost through cash or in-kind payments. District Agriculture and Forestry Extension Officer (DAFEO)

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<sup>26</sup> The Council of Minister's Decree No. 117 (1989); Prime Minister's Decree No. 169 (1993); Prime Minister's Decree No. 186 (1994); and the Forestry Law (2007).

<sup>27</sup> Where villages are assigned community forest management rights, household timber extraction is limited to periodic house construction needs.



capacity to technically support CBFM will be strengthened. Up to 110 villages are expected to benefit from CBFM, with up to 2,500 vulnerable households being supported in making agroforestry investments.

59. *Activity 2.1.3. Climate change on-farm adaptation innovation fund disbursed.* This activity will finance innovative smallholder farmer group climate change adaptation investments for improved food security and nutrition including, *inter alia*, fish production; forage development for stall fed livestock; soil improvement; time efficient and climate adapted farm equipment; renewable energy technologies (RET); and participatory action research driven by beneficiary needs and identified knowledge gaps. Shifts in agriculture production to address climate change can involve substantial costs, including delayed yields, which may constrain investment in improved resilience by vulnerable households. To support and accelerate this investment process, the SACCC will provide co-financing for climate change adaptation. Based on sub-project proposals (prepared with kum ban facilitator and DDST support) by vulnerable farmer groups identified through the LAIP planning process, the FNML will approve co-financing that will cover up to 75% of the costs of each investment, with a maximum co-financing amount of about LAK 72 million (USD 9,000) per village (including beneficiary contribution). Beneficiary co-financing will be through in-kind contributions. This activity will benefit up to 100 villages including at least 2,000 vulnerable households. Beneficiaries will receive technical support from the FNML staff, including through farmer field schools (FFS) and be able to use up to 30% of the grant to purchase: (i) private technical support through performance-based contracts with trained lead farmers, village animal health workers, or civil society support organisations in the district; (ii) numeracy or literacy training through local education providers; or (iii) market services aligned with the FNML Institutional Support component. Such performance-based contracts, to be coordinated by the DSEDCC, will be between the beneficiary group and the service provider. All co-financed groups will receive training in basic farm financial management. To be eligible for adaptation innovation co-financing, the members of a vulnerable farmer group, each of at least 8-10 households, must (i) be classified as vulnerable households; and (ii) include at least 40% female members. All supported sub-projects must demonstrate sustainability beyond the initial SACCC assistance. In particular co-financing must be closely linked to reduced household vulnerability and improved resilience. The maximum co-financing will be up to LAK 32 million (USD 4,000) per group, including co-financing. Grant applications and the subsequent co-financed contracts, must clearly define each member's share of the grant.

60. The SACCC will contract the NAFRI AFPRC to implement a Participatory Action Research (PAR) programme in collaboration with smallholder groups identified through LAIP preparation. The NAFRI will monitor, evaluate and promote appropriate endogenous adaptation responses being practiced by smallholder farmers, as well as test and promote resilience building measures identified by communities and from the SACCC Knowledge Platform. As a component of PAR, the impact on labour and other inputs for men and women will be assessed to ensure that the burden on women is equitable. Training in PAR methodologies and practices will be provided for NAFRI scientists and to national and district level MAF and PAFO and DAFO staff. In partnership with donor working groups and international collaborators, the NAFRI AFPRC will also evaluate climate adaptation technologies and approaches that show potential for scaling up. This will include climate resilient adaptation innovations such as field testing drought and heat tolerant seed varieties, forage incorporation into farming, forestry and land stabilization systems, soil degradation and organic matter inclusion, portable biogas units, and farming and forestry models for building a knowledge base on viable livelihood activities.

## **D. Lessons learned and adherence to IFAD policies**

61. 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 SACCC 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 activities complementarities;
- Continued capacity building and knowledge management is crucial for all stakeholders, including technical agencies, extension agents and beneficiary households. Trainings should be provided in the languages of the target ethnic groups. They should take cultural differences into consideration, and should take place in the villages 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 SACCC 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 (programmes) 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;

62. Furthermore, FNML 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 including the UNDP implemented LDCF, IRAS projects, the World Bank (WB) PRF and Sustainable Forestry and Rural Development (SUFORD) projects.

- Set up pilot projects 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;
- Build Forums for exchanging and interpreting climate change risk information based on current climate variability and future climate change projections among key stakeholders at national, provincial and community levels;
- Ensure the coherence of Programme activities with regular planning and investment processes at district and provincial levels;
- 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 impacts;
- There are opportunities to increase the technical quality of infrastructure and strengthen supervision, including resilience and disaster risk aspects;
- Procurement procedures should be adapted more to community needs and capabilities.
- Community engagement especially in ethnic villages requires additional analysis, resources, and institutional coordination; and
- Equity aspects should be mainstreamed in project design, with adequate capacity and monitoring mechanisms

63. The SACCC proposal is consistent with the objectives of IFAD's COSOP, namely (i) community-based access to, and management of, land and natural resources is improved; (ii) access to advisory services and inputs for sustainable, adaptive and integrated farming systems is improved; and (iii) access to markets for selected produces is improved. aligned with the Lao PDR

National Social Economic Development Plan, the Government's Strategy for Agricultural Development 2011 to 2020, the National Adaptation Programme of Action to Climate Change (2009) and the National Climate Change Strategy" (2010).

64. The SACCC is also fully consistent with IFAD's CC strategy and the programming principles of ASAP. It will scale up a number of successful multi-benefit approaches to rural development in Laos, delivering resilience benefits to smallholder farmers by improving production and reducing and diversifying climate-related risks. The SACCC will align with government systems by building off the MoNRE model for community-based climate vulnerability assessment, planning, capacity analysis, and empowering of local institutions to engage with national climate policy. The SACCC will also pilot GIS-based landscape analysis, improve the collection, analysis and dissemination of cc adaptation data and develop a WOCAT-linked CC adaptation knowledge platform.

65. The SACCC will seek alignment and synergies with several national programmes, including:

- The UNDP-GEF financed Least Developed Countries Fund (LDCF) project "Effective Governance for small-scale rural infrastructure and disaster preparedness in a changing climate", which in Salavanh, Xekong provinces, seeks to *to improve* local administrative systems affecting the provision and maintenance of small scale rural infrastructure (including water and disaster preparedness) through participatory decision making that reflects the genuine needs of communities and natural systems vulnerable to climate risk.
- The World Bank Poverty Reduction Fund (PRF) project, implemented in, *inter alia*, Salavanh, Xekong provinces, with the objective to improve the access to and the utilization of basic infrastructure and services for the Project's targeted poor communities in a sustainable manner through inclusive community and local development processes;
- The UNDP GEF financed Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS), implemented, *inter alia*, in Salavanh province with the objective to minimize food insecurity resulting from climate change in Lao PDR and reduce the vulnerability of farmers to extreme flooding and drought events; and
- The regional UNDP/UNCDF Local Climate Adaptive Living Facility" (LoCAL), for Local Bodies programme, which aims at mobilizing and channelling global and national climate finance to Local Bodies to enable them to adapt/mitigate the effects of climate change by investing in local resilience.
- The Asian Development Bank (ADB) Biodiversity Conservation Corridors Project, which aims to reduce ecosystem fragmentation through an integrated conservation and development approach across the biodiversity rich forest landscapes of the Cardamom Mountains and Eastern Plains Dry Forest in Cambodia, Tri-border Forest areas located in southern Lao PDR, and the Central Annamites in Viet Nam.

### III. Component implementation

#### A. Approach

66. The SACCC is a component of the FNML, which "promotes a dual approach that aims at tapping the agro-ecological potential to target markets that can earn sustainable income, while at the same time improving food and nutrition security". The results from other IFAD supported projects in Lao PDR have demonstrated that the participatory approach and decentralization to village level as is feasible and should be expanded. The Government at national and provincial levels has placed a considerable emphasis on the need for effective CC adaptation within the context of a decentralized and market-based public-private partnership approach.

67. The organizational and management structure proposed for SACCC will be based on the lessons learnt under the previous projects Lao PDR and the region, which include:(i) the IFAD project management system should not create a different system parallel with the existing local institutional

setup (ii) financial management mechanism and flow of funds for all outcomes should be clearly specified in the project design and implementation guideline documents; (iii) the need for clear specification of the positions, roles and functions of the Regional Programme Steering Committee and Regional Programme Coordination Office and their reporting systems; (iv) the FNML PRCO should establish Memorandum of Understanding (MoU) with lead agencies outside the MAF before SACCC inception; (v) the component capacity building interventions should focus on improving the public services at the provincial, district and kum ban levels to ensure effective decentralization; and (vi) the programme M&E systems can be (although not universally) robust in terms of generating timely and sufficient data, but are generally weak as a management tool for planning, strategizing and implementation.

68. The SACCC will apply a CC vulnerability and adaptation perspective to the activity programming approach detailed in the FNML, which proposes: (i) a village-based analysis of engendered opportunities and constraints to determine best options for food and nutrition security, value addition and sustainable resource use; (ii) a Participatory Land Use Plan reflecting the community's vision of how best to use natural resources to achieve these concurrent objectives; and (iii) the constitution of farmers' groups to implement agreed objectives. Recognising the limited experience of farmer organization in the programme area, the FNML recommends, subject to adequate gender and equity balances, the use of existing village institutions, such as village LUP/LA committees, for the development and management of SACCC infrastructure investments and the FNML-supported Lao Extension Approach (LEA)<sup>28</sup> supported by farmer-to-farmer learning and exchange, for CC adapted technology transfer, covering a medley of technologies, particularly related to sustainable soil, forest and irrigated crop production management. Consistent with FNML procedures, gender balance and women's empowerment will be important components of the SACCC extension approach.

69. Given the dispersed nature of villages in upland Laos the SACCC proposes to use the "Kum Ban Pattana" Village Development Cluster as the planning base for climate change adaptation. This will allow for a more landscape-based approach to natural resource planning and efficiencies in technical support. This approach has been adopted by the WB PRF II project and has been used by development partners elsewhere in Lao PDR. The FNML will appoint a kum ban facilitator, preferably a young ethnic person graduate, to support climate adapted participatory planning and technology transfer at village level. Kum ban facilitators will be supported by the DDST.

70. The DDST, DAFO and PAFO will be empowered to assess and address issues related to climate change vulnerability and adaptation. Consistent with the FNML, a range of innovative approaches will be taken for capacity building of SACCC stakeholders. This will include: (i) regular support to and coaching of farmers' organisations, based on annual assessment of their performance and on the skills required for improvement; (ii) implementation of the Lao Extension Approach and development of farmer-to-farmer learning and exchanges; (iii) annual capacity development plans to raise the capacities of district departments so that they can implement their responsibilities in the most efficient way; and (iv) knowledge management and dissemination through a WOCAT supported NAFRI managed climate adaptation Knowledge Platform..

71. To avoid casualties, all SACCC activities requiring digging or extraction on surfaces that were not already cultivated (including for planting, construction, installation of water points, etc.) will be first cleared by the Lao National UXO Programme (UXO LAO), which will reflect FNML needs into its annual programming.

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<sup>28</sup> the Lao Extension Approach (LEA), is based on learning groups defining their own learning objectives and which follows a series of steps (constraints analysis, training needs assessment, definition of a learning programme/implementation plan, coaching and monitoring, gender sensitive farmer exchanges with other farmers to spread knowledge from the learning group to other farmers in the village) that are well documented in a set of guidelines and handbooks.

## B. Organizational framework

72. The **Ministry of Agriculture and Forestry**, through its Department of Planning and International Cooperation (DoPIC), is the FNML lead agency that has overall responsibility for SACCC implementation, which it delegates to district administrations and to the Programme Regional Coordination Office based in Attapeu.

73. **District Agriculture and Forestry Offices** will serve as a focal point for the planning and monitoring of FNML activities at district level. Under the FNML, each DAFO will assign the following existing staff: (i) a planning officer; (ii) a finance officer; and (iii) a treasurer to coordinate and consolidate planning and budgets for the preparation of AWPBs, to manage FNML accounts for expenditure carried out at district level, and to prepare quarterly, semester and annual progress reports and financial statements. AWPBs, semester and annual progress reports will be validated by the District Socio-Economic Development Coordination Committee. Line agencies at district level will participate in the implementation of SACCC activities under their respective responsibilities, through district teams that will gather staff from DAFO, DPI, DoIC, LWU, DOH, DPWT and others. District teams will also include FNML district-based staff (see below), who will provide technical support and assist in the implementation of activities. District teams will reflect gender balance, and a special effort will be made to select people who have command of ethnic languages.

74. DAFOs will send validated district AWPBs and technical and financial reports to their respective Provincial Agriculture and Forestry Office. The PAFOs will review and consolidate them, prior to submitting them to the Provincial Socio-Economic Development Committee. The Committee will review and approve them, and send them to the PRCO.

75. **Kum ban “Pattana”** Village Development Clusters will be the focal point for coordinating participatory village level climate adaptation development planning with a view to taking a more holistic landscape approach to climate adapted natural resource management by the scattered upland villages of Lao PDR.

76. The **Programme Regional Coordination Office (PRCO)** will be based in Attapeu in the premises currently occupied by RLIP. It will assist MAF in carrying out FNML implementation responsibilities and will be fully accountable for the performance of SACCC implementation and the use of funds. More specifically, it will: (i) *provide overall guidance and technical support* to SACCC implementers, and build verifiable/measurable district capacities for SACCC implementation and coordination; (ii) *directly implement activities* encompassing more than one district (including activities to be executed by service providers, preparatory activities, technical assistance, business partnerships, financial instruments) as well as activities that will benefit from lower costs if procured together (including equipment or starter kits), in close connection with district teams; and (iii) *ensure overall coordination and programme management*. This will include the consolidation of AWPBs and reports covering activities implemented by districts as well as activities implemented directly by the PRCO, prior to their transmission to FNML Regional Steering Committee for review and approval. PRCO staff whose salaries will be financed by SACCC resources will be hired through renewable, performance-based contracts, based on detailed job descriptions presented in the FNML Implementation Manual. Current capacities in FNML will be fully utilized. The PRCO team will reflect gender balance and possibly command of some of the main ethnic languages in the target area. Short-term technical assistance will be hired to strengthen the capacities of PRCO and district teams in specific areas related to SACCC innovations, as well as in management areas.

77. **UN-HABITAT** will be responsible for the implementation of activities relating to water management and associated ecosystems stabilization infrastructure, in close collaboration with DOHs and DPWTs. Services delivered in partnership with development partners are an exception to the procurement guidelines and will be indicated in the financing agreement.

78. **The existing FNML Programme Regional Steering Committee (RSC)** will provide overall guidance and oversight. The RSC will also approve annual AWPBs and annual progress and financial

reports. It will include representatives from line ministries participating in FNML implementation (MAF, MIC, MOH, MPWT, and MOF), Governors and Vice-governors of three target provinces, LWU, partner banks, Lao Coffee National Association, Private Business Association, the Association of Coffee Producers' Groups, and other organizations and a balanced representation of farmers. The RSC will be headed by the Vice-minister, MAF and the Governor of Attapeu will be its vice-chairman. The Vice -chairman will also have the delegated powers from the Chairman to attend to any matters of urgency and provide support to the PRCO based in Attapeu. The RSC will conduct its meetings on a rotational basis between Attapeu, Salavanh and Xekong.

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

79. Successful SACCC 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 LAIP process, which will initiate the preparation of public good infrastructure and household resilience building investment plans. Specialist DDST and PAFO staff, supported by a kum ban facilitator will ensure that the LAIP planning process is genuinely representative and inclusive, as well as being consistent with government rules and policies. PRCO officers will provide supervision to the support staff at the district and kum ban levels and coordinate with the staff of the PAFO to organize the LIPA planning process in the SACCC villages and kum ban.

#### **Planning**

80. **The Annual Work Plan and Budget (AWPB).** *The* AWPB is an important management tool for planning, monitoring and reporting purposes, and for orienting and coordinating the actions of diverse institutions and stakeholders of the FNML. Its process should be completed through participatory exercise from the village level to avoid top-down planning. In preparing the component AWPB the SACCC will follow a defined process to allow enough time for consultation of relevant stakeholders at all levels.

81. The Programme Logical Framework should be used as the main reference for formulating the AWPB, to create clear linkages between proposed budget requirements, planned activities, and expected outputs, outcomes and impacts (annual targets vs. achievements).

82. The PRCO will prepare draft consolidated Annual Work Plans and Budgets (AWPB) for each Fiscal Year, based upon district level plans and AWPBs prepared by each DAFO/implementing agency for their respective section of the SACCC implementation. Each draft AWPB will include, among other things, a detailed description of planned SACCC activities for the relevant Programme Year, and the sources and uses of funds for and updated procurement plan (an initial 18-month plan for PY1 and thereafter 12-month plans for subsequent years).

83. The PRCO will submit a draft consolidated AWPB to the PRSC for its approval no later than 90 days before the beginning of the relevant Fiscal Year. Once approved, the PRCO will submit the draft AWPB to IFAD for comments and approval, no later than 60 days before the beginning of the relevant Fiscal Year. If there is no comment of IFAD on the draft AWPB within 30 days after receipt, the AWPB shall be deemed approved. Annual stakeholder review and planning workshops are to be organized for the assessment of annual programme progress and for the support of the AWPB preparation process.

84. The PRCO, DAFOs and implementing agencies will adopt the AWPBs substantially in the form approved by IFAD. The PRCO will provide copies thereof to IFAD, prior to the commencement of the relevant Programme Year. If required by IFAD, the PRCO will propose adjustments in the AWPB with the approval of the PRSC. Such adjustments will be effective upon approval by IFAD.

## Monitoring and evaluation

85. The SACCC M&E system will be fully integrated with that of the FNML, which is designed to (i) guide *programme implementation* through the systematic collation and analysis of programme outputs and outcomes and assessment of programme impacts on poor HH livelihoods; (ii) *support economic decisions and policy making* by providing stakeholders with the information and analysis they need to assess the return brought by innovation, to develop profitable activities and to adapt their strategies accordingly; and (iii) *share knowledge* by capturing lessons learnt, good practices and successful innovation and posting it on appropriate knowledge platforms. The GIS system will be used to support surveys and monitoring data analysis.

## Learning and knowledge management

86. The SACCC will establish a knowledge exchange platform under the joint auspices of the Environment Sector Working Group and the Agriculture and Rural Development Sector Working Group. This process will provide a practical avenue for collaboration and learning, thus directly contributing to more effective coordination, coherent messaging and implementation of government policies on climate change adaptation. Good practices will be identified and scaled up within the FNML and other programs. This will include developing linguistically and culturally appropriate learning approaches that take into account low literacy rates of ethnic people, especially women. This information will be accessible through a NAFRI hosted database linked to and supported by the World Overview of Conservation Approaches and Technologies (WOCAT).

87. WOCAT is an established global network of Soil and Water Conservation (SWC) specialists based in over 50 research institutions around the world, including in East and Southeast Asia dedicated to sustainable land management (SLM). . The overall goal of the WOCAT Network is to unite the efforts in knowledge management and decision support for up-scaling SLM among all stakeholders (<https://www.wocat.net>). WOCAT would be contracted to familiarise MAF, MoNRE, and NAFRI staff at national, provincial and district level with the WOCAT toolkit, including for sustainable watershed management and mapping and climate change and with their online databases.

88. Through the knowledge exchange platform, gaps in agriculture and adaptation knowledge will be identified for further testing of approaches and technologies and for financing through the Adaptation Innovation Fund (see Activity 2.1.3). An effective M&E and information management system, based on initial IRAS experience, will be elaborated for assessing these on-farm trials and for disseminating best practice.

89. Knowledge sharing is a continuous process and an integral part of the programme management work. The SACCC will implement a dynamic programme of information sharing including (i) close collaboration with the Working Group, the Agriculture and Rural Development Sector Working Group and other development partners. (ii) intra- and inter-district study tours, discussion and workshops for programme and line ministry staff at national and district level to evaluate and discuss and promote CC initiatives; (iii) different forms and formats for dissemination of results including farmer-to-farmer extension, learning events (workshops, technical "fairs" & exhibitions, etc.), field visits and study tours for technical staff and decision-makers, and the costs for presentations of results at national and regional conferences and events. The FNML Programme Regional Coordination Office (PRCO) will prepare a series of reports that capture and manage the SACCC development experience. These will include:

- *Documenting lessons learnt, best practices and cases of success: The FNML M&E and KM officers, with NAFRI AFPRC and WOCAT support, would collect all available relevant information to document lessons learnt, best practices and cases of success for CC adaptation. It could be based on information collected from: participatory adaptive research, progress reports, meetings and interviews, monitoring and evaluation reports, output evidence provided by targeted groups, market and value chain entities and other involved parties. Specifically it will include: (i) scientific reports; (ii) case studies for local and national*

*stakeholders on adaptation options in agriculture and natural resources management to raise awareness and build adaptive capacity; and (iii) how adaptation and resilience thinking could be better integrated into value-chain analysis and market-based agriculture under the FNML*

- *Developing and delivering a lessons learnt study: Based on the information collected along programme implementation, the FNML KM Officer, with NAFRI AFPRC and WOCAT support, would develop both a mid-term and an end of programme CC Adaptation Lessons Learnt Report, analysing the documented lessons learnt, best practices and cases related to adaptation methodologies and approaches for IFAD and other international stakeholders that could inform future project and programme design. It would be first submitted to IFAD and, once feedback has been incorporated, if any, the report would be shared widely, particularly through on-line platforms.*

#### **D. Financial management, procurement and governance**

90. SACCC financial management will be governed by the Ministry of Finance (MOF) decree on the financial management rules applicable to Official Development Assistance grant funds<sup>29</sup>, and in line with IFAD guidelines on financial management. It will be under the overall responsibility of the FNML Programme Coordinator and of the Financial Manager. In order to ensure a strong financial management system, the following requirements will be met: (i) ensure that funds are used only for the purpose intended under the financing agreement, in an efficient and economical way and in accordance with the activities described in the Programme Design Report and in the Annual Work Plans and Budgets (AWPBs); (ii) enable the preparation of accurate and timely financial reports; (iii) ensure that funds are properly managed and flow rapidly, adequately, regularly and predictably; (iv) enable programme management to monitor the efficient implementation of FNML and; (v) safeguard the assets and resources procured using programme funds. The Programme Implementation Manual (PIM) will include a section on Financial Management describing IFAD procedures relating to the Withdrawal Application (WA) process, flow of funds, accounting and financial reporting and audit requirements.

91. SACCC funding will be integrated with that of the FNML. *Funds to be disbursed by the PRCO* will flow into an account managed by the Programme Coordinator. The operational modalities and types of eligible expenditures to be engaged by the Coordinator, including requirements for double signature beyond a certain ceiling are detailed in the FNML PIM. This will be the case for most of the SACCC activities on the ground that they will not be related to one single district (such as preparatory activities, technical assistance), or that they will benefit from lower costs if procured together (such as equipment or starter kits); *LAIP Funds to be disbursed by the districts* will be channelled by PRCO directly to the District Development Fund. Other district level expenses, such as for training activities to be implemented at district level; and DSA paid to district staff will be disbursed to the district, based on the AWPB.

92. **UN-HABITAT.** Activities related to access to water ecosystem stabilization infrastructure will be implemented by UN-HABITAT. Funds will be channeled directly from IFAD to UN-HABITAT, which will make them available to its representation in Laos, based on the AWPB. WAs will be cleared by the PRCO.

93. MAF, through the PRCO, and UN-HABITAT 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.

94. **Procurement** will be carried out in accordance with government regulations (Lao PH) and IFAD Procurement Guidelines. A draft procurement plan for the initial period of 18 months of SACCC implementation will be prepared during the final design mission (see Appendix 8). It will be finalised by

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<sup>29</sup> Decree 2695/MOF dated November 1<sup>st</sup>, 2010.



PRCO during as an integral part of the FNML annual procurement plan. Considering the low amounts involved, it is unlikely that International Competitive Bidding (ICB) will be required, and rather that procurement will be based on National Competitive Bidding (NCB) or National Shopping Arrangements (NSR). For efficiency, the procurement of vehicles and equipment, service providers and consultants' services will be done by PRCO, while the procurement of small value contracts for the procurement of goods and services will be done at the district level. Clear indications in this respect will be further developed by the final design mission. Service providers will be hired through renewable performance-based contracts.

95. IFAD no objection will be required for all consulting services contracts and for procurements of goods and works above USD 60,000. In addition, procurement undertaken through direct contracting will be subject to IFAD's no objection.

96. **Governance.** Laos has a 2013 Corruption Perception Index of 26 (over 100) and ranked 140 out of 177 countries, which, despite a 20% improvement over the 2012 index, indicates a very significant lack of transparency in government institutions. IFAD will apply a zero-tolerance policy on corruption. PRCO will prepare, with assistance from the Financial Management and Procurement Advisor and the Business Development Specialist, 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 PRCO) and the selection of agribusiness that will enter into business partnerships and benefit from FNML support, are carried out in accordance with IFAD rules and with programme design specifications. The framework will be included in the PIM and published on IFADAsia (FNML webpage). 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 and on IFADAsia, including assessment criteria and weighing; (ii) the participation of representatives of end-users in bid assessments; (iii) the prompt communication to bidders of bid evaluation outcomes. This framework will also include an internal code of conduct to be signed by all PRCO staff, and a code of business ethics, to be signed by all partners and beneficiaries of FNML activities and business partnerships. Draft codes will be discussed and agreed at the inception workshop.

97. Other measures reflected in programme design to ensure transparency include the following: (i) annual audits 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 FNML activities; and (iv) evaluation and impact assessment will be outsourced to independent institutions. Supervision

98. **Supervision.** As a component of the FNML, the SACCC will be supervised directly by IFAD. Annual supervision missions, followed initially by short follow-up missions six months later, will be organised jointly with the Government and will include the main implementing agencies and programme stakeholders (UN-Habitat and others). 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 KM 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 returning regularly, 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) profitable and sustainable climate change adaptation; (ii) evolution of farmers' organisations and farmer-to-farmer activities; (iii) M&E and KM; and (iv) fiduciary compliance, and implementation of the programme framework for transparency and publicity.

99. **Mid-term review. The SACCC will be reviewed as a component of the FNML mid-term review.** A joint mid-term review will be organised by government and IFAD after 30 months (mid-2017), 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 years of programme achievements and learning. The MTR will: (i) assess programme achievements and interim impact, the efficiency and effectiveness of FNML management, and the continued validity of FNML 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 climate change vulnerability assessment at community and HH levels and community based climate change adaptation investment planning
- the performance of climate change adaptation technology;
- the performance of farmers' organisations and the opportunity to develop second-tier organisations;
- the performance of the multi-stakeholders' platforms;
- the progress in social inclusion, gender equity and the effectiveness of the GALS/PLA approach;
- the progress of government capacity in M&E and inter-ministerial coordination.

100. Furthermore IFAD will organize a comprehensive supervision mission in the first half of the fifth year to conduct a thorough review of achievements and make recommendations to ensure the sustainability of FNML achievements beyond programme completion.

## E. Risk identification and mitigation

101. Table 1 identifies main risks and mitigation measures, as well as sensitivity to risk occurrence as per the economic analysis.

**Table 1– Main risks and mitigation measures**

Risks	Risk description	Probability of occurrence	Mitigation measures in SACCC design	Comparative sensitivity analysis result (Proxy)
Institutional	Lengthy process of assessment and planning saturates the dynamics momentum  Uneven dynamics of groups affect their success potential  Weak technical and management capacities of district line agencies	High to Medium	Build on ongoing programmes' experience in community participatory planning and incorporate into the LAIP  clear criteria for identifying potential participating groups and sound establishment training  Technical support and capacity building provided by PRCO, short-term technical assistance and access to new techniques and know-how  Annual capacity assessment and capacity development plans to fill gaps	
	Ineffective coordination between PAFOs, DAFOs, kum bans and service providers in charge of infrastructures undermining implementation progress	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.  UN Habitat oversight of infrastructure investments	
	Sustainable use of programme-financed civil works and Inadequate capacity for	Medium	a) Hand-over the works to the community to increase ownership of the beneficiaries'; b) training provided to the communities on	

Risks	Risk description	Probability of occurrence	Mitigation measures in SACCC design	Comparative sensitivity analysis result (Proxy)
	community-based O&M.		committee establishment, O&M, normal repair skills, as well as operation cost arrangement and tariff collection, will help to ensure sustainable use of the programme-built works.	
	Elite capture of programme investment funds and benefits	Medium	(i) Pro-poor investment policies and planning; (ii) community empowerment, particularly women and ethnic people and (iii) close scrutiny and mentoring of all investments.	
<b>Market</b>	Lack of technical substance and affordable and accessible CC adaptation support to respond to the identified needs	High to medium	Market information, improved technology advice, promotion of producers' groups and market linkages	
	Lower market prices for commodities	Medium	Diversified production and improved market information	
<b>Policy</b>	Farmers are not treated as clients  CC does not become a cornerstone in agricultural and rural development policies at national and provincial levels	Medium	Empower farmers through technical training and group and gender awareness. Train government agencies in participatory development and cultural awareness.  Substantive and sustained investment in policy dialogue at national and provincial levels, with strong CC adaptation emphasis within programme knowledge management.	
<b>Others</b>	Natural calamities including flood and drought lower output of farm production	High	Improvement of productive infrastructures and adoption of climate-smart technologies and varieties to advance production season will help ease the risk;  Access to meteorological and market info by farmers	
	Damages to civil works built caused by natural disasters, like floods and land sliding.	Medium	a) Ensuring climate adapted design and protection measures taken to avoid any predictable damages; (b) the government institution are responsible for the repair of unusual damages occurred that beyond the community's ability.	
	Remoteness of upland villages and difficulty of access during rainy season	Medium to High	Promotion of products that combine high farmer margin for small volumes and are easy to transport  Developing primary processing and storage to defer marketing of produce until roads become accessible  Promotion of farmer-to-farmer exchanges in combination with farmers' groups	

## IV. Component costs, financing, benefits and sustainability

### A. Component costs

102. The main assumptions underlying the derivation of ASAP FNML costs, estimated costs and the financing plan are:

- The report combines the cost estimates of the FNML and the SACCC-FNML
- **Component duration.** The duration of the FNML is seven years with a start date of September 2013. The ASAP components of the FNML will have a duration of 5 years, starting in 2015 to fully align with the FNML total duration.
- **Prices and costs.** Costs for the ASAP FNML have been derived through the amalgamation of the FNML and FNML-SACCC Costab files. Costs are inputted in US dollars with inflation adjustments made for the differing cost bases as shown in Table 2 below. Data were collected by the consultants in the field and with partners, or provided by the FNML team.
- **Inflation.** The local inflation scenario assumed in the FNML design document for the 7 years of the programme was 5%. So far, the average inflation has reached 4.26% in 2012 but has then accelerated substantially with 6.37% in 2013 and 5.65% for the first quarter of 2014 (Bank of Lao). The forecasts of the IMF, the World Bank and the Asian Development Bank for the next period estimate continuous high level of inflation (above 7% for the IMF and 6% for ADB). The original FNML design projection has been applied for the SACCC, but this should be looked at during the mid-term review if forecasts turn out to be true. The foreign inflation scenario remains unchanged.

**Table 2: Inflation rates (local and foreign)**

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
<b>2013 FNML Costings</b>							
Foreign inflation	2%	2%	2%	2%	2%	2%	2%
Local inflation	5%	5%	5%	5%	5%	5%	5%
<b>2014 SACCC Costings</b>							
Foreign inflation	-	-	2%	2%	2%	2%	2%
Local inflation	-	-	5%	5%	5%	5%	5%

- **Exchange rate.** The exchange rate of LAK 8,000/USD is applied for the the ASAP FNML cost estimate.
- **Contingencies, taxes and duties.** The original FNML procurement, disbursement and expenditure accounts have been adopted for this ASAP FNML cost estimate. Physical and contingencies as well as taxes, duties and share of foreign exchange used in the FNML appraisal budget for each expenditure account have been maintained and applied to the ASAP related costs. These along are presented in Appendix 9.

#### Component cost

103. **Total component cost.** The total cost for the ASAP FNML is estimated at USD 18.86 million (LAK 150.86 million) including contingencies. The total base costs are USD 17.87 million (LAK 142.97 million). Physical and price contingencies account for USD 0.44 million and USD 0.54 million respectively (2% and 3% of the total base costs). Investment costs are estimated at USD 16.16 million representing 90% of total cost.

104. The total ASAP FNML costs are divided among four components. The first three components comprise: component 1 Food and Nutrition Security and Pro-Poor Market Access USD 5.52 million,

component 2 Rural Finance USD 1.86 million and component 3 Institutional Support USD 4.42 million. The fourth component targeting smallholder adaptation to climate change comprises the following sub-components: sub-component i) Strengthening of Enabling Environment for Climate Change Adaptation USD 1.28 million, sub-component ii) Climate Change Adaptation Fund disbursed USD 4.04 million and sub-component iii) Programme Management USD 0.76 million. The breakdown of these costs is shown in Table 3.

**Table 3: ASAP FNML cost summary by outcomes (in LAK million and USD million)**

Lao PDR ASAP FNML Final Design Components Project Cost Summary		(LAK Million)			(US\$ '000)			%	% Total
		Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
1. Food and Nutrition Security & Pro-poor Market Access	36,429	7,708	44,137	4,554	964	5,517	17	31	
2. Rural Finance	12,832	2,008	14,840	1,604	251	1,855	14	10	
3. Institutional support	21,016	14,320	35,336	2,627	1,790	4,417	41	25	
4. Strengthening of enabling environment for climate change adaption	6,112	4,103	10,216	764	513	1,277	40	7	
5. Climate change adaption fund disbursed	26,731	5,615	32,346	3,341	702	4,043	17	23	
6. Climate change component project management	609	5,485	6,094	76	686	762	90	4	
<b>Total BASELINE COSTS</b>	<b>103,729</b>	<b>39,239</b>	<b>142,968</b>	<b>12,966</b>	<b>4,905</b>	<b>17,871</b>	<b>27</b>	<b>100</b>	
Physical Contingencies	2,626	910	3,536	328	114	442	26	2	
Price Contingencies	3,903	452	4,354	488	56	544	10	3	
<b>Total PROJECT COSTS</b>	<b>110,259</b>	<b>40,600</b>	<b>150,859</b>	<b>13,782</b>	<b>5,075</b>	<b>18,857</b>	<b>27</b>	<b>106</b>	

105. **Costs by expenditure category.** The breakdown of the ASAP FNML costs by expenditure account and currency is shown in Table 4.

**Table 4: ASAP FNML costs by expenditure account**

Lao PDR ASAP FNML Final Design Expenditure Accounts Project Cost Summary		(LAK Million)			(US\$ '000)			%	% Total
		Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
<b>I. Investment Costs</b>									
A. Civil works	18,000	6,000	24,000	2,250	750	3,000	25	17	
B. Vehicles	909	898	1,807	114	112	226	50	1	
C. Equipment	308	2,775	3,083	39	347	385	90	2	
D. Agri Inputs	4,293	459	4,752	537	57	594	10	3	
E. Matching grant	37,480	-	37,480	4,685	-	4,685	-	26	
F. Training & capacity building	27,490	6,755	34,244	3,436	844	4,281	20	24	
G. Technical Assistance	2,404	21,536	23,940	300	2,692	2,993	90	17	
<b>Total Investment Costs</b>	<b>90,884</b>	<b>38,423</b>	<b>129,307</b>	<b>11,361</b>	<b>4,803</b>	<b>16,163</b>	<b>30</b>	<b>90</b>	
<b>II. Recurrent Costs</b>									
A. Salary & allowances	4,413	-	4,413	552	-	552	-	3	
B. Other operating costs	8,432	816	9,248	1,054	102	1,156	9	6	
<b>Total Recurrent Costs</b>	<b>12,845</b>	<b>816</b>	<b>13,661</b>	<b>1,606</b>	<b>102</b>	<b>1,708</b>	<b>6</b>	<b>10</b>	
<b>Total BASELINE COSTS</b>	<b>103,729</b>	<b>39,239</b>	<b>142,968</b>	<b>12,966</b>	<b>4,905</b>	<b>17,871</b>	<b>27</b>	<b>100</b>	
Physical Contingencies	2,626	910	3,536	328	114	442	26	2	
Price Contingencies	3,903	452	4,354	488	56	544	10	3	
<b>Total PROJECT COSTS</b>	<b>110,259</b>	<b>40,600</b>	<b>150,859</b>	<b>13,782</b>	<b>5,075</b>	<b>18,857</b>	<b>27</b>	<b>106</b>	

## B. Component financing

106. **Component cost by financier.** IFAD will provide a grant of USD 5 million (26.7%) from IFAD's Adaptation for Smallholder Agriculture Programme (ASAP) in addition to the FNML IFAD grant of USD 9.7 million (51.6%). The local banks and private enterprise are expected to contribute USD 1.48 million (7.8%). The Lao PDR contribution is estimated at USD 1.15 million (6.1%) and beneficiary contribution will be USD 1.47 million (7.8%). The Government will finance kum ban facilitators and taxes and duties. Details and further disaggregations are shown in

**Table 5: Financing plan by outcomes, ASAP FNML**

	ASAP		The Government		IFAD Grant		Private Enterprise Sector		Banks		Farmer Beneficiaries		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
1. Food & Nutrition Security & Pro-poor Mkt Access	-	-	180	3.1	4,258	73.4	1,060	18.3	-	-	300	5.2	5,798	30.7	999	4,619	180
2. Rural Finance	-	-	-	-	1,195	64.4	300	16.2	120	6.5	240	12.9	1,855	9.8	251	1,604	-
3. Institutional support	-	-	377	8.1	4,269	91.9	-	-	-	-	-	-	4,646	24.6	1,805	2,694	147
4. Strengthening of enabling env't for CC adaption	1,538	100.0	0	-	-	-	-	-	-	-	-	-	1,538	8.2	567	971	-
5. Climate change adaption fund disbursed	3,208	75.7	99	2.3	-	-	-	-	-	-	932	22.0	4,238	22.5	750	3,390	99
6. Climate change component project management	285	36.4	497	63.6	-	-	-	-	-	-	-	-	782	4.1	703	78	-
<b>Total PROJECT COSTS</b>	<b>5,031</b>	<b>26.7</b>	<b>1,153</b>	<b>6.1</b>	<b>9,722</b>	<b>51.6</b>	<b>1,360</b>	<b>7.2</b>	<b>120</b>	<b>0.6</b>	<b>1,472</b>	<b>7.8</b>	<b>18,857</b>	<b>100.0</b>	<b>5,075</b>	<b>13,356</b>	<b>426</b>

### C. Summary benefits and economic analysis

107. The targeted number of beneficiaries under the food and nutrition security component activities is shown below in Table 6.

**Table 6. Household targeted for food and nutritional benefits**

Subproject	Number of Households
1 Cassava households	3,700
2 Maize households	3,700
3 Coffee households	2,900
4 Vegetable households	200
5 Niche crop households	10,500
6 Home gardens households	10,500
7. Village water supplies	3,000

108. The smallholder adaptation to climate change component will, in aggregate, target a total of about 6,000 HH or about 30,000 direct beneficiaries, of which 70% will be successful/sustainable (4,200 HH/21,000 direct beneficiaries). It is assumed that each household will benefit from at least one investment product (i.e. investment in small-scale irrigation, CBFM or Innovation). Table 7 shows the area and/or number of planned investments. The estimated number of beneficiary vulnerable households by development activity is detailed in Table 8.

**Table 7. Area and number of investments scheduled by year under small holder adaptation**

Model	Model Size (ha)	Invested area/number by year (ha/no.)					Total (ha/no.)
		PY1	PY2	PY3	PY4	PY5	
							<b>Total</b>
<b>Small scale water infrastructure</b>							
Vegetables - one crop (ha)	1	0	27	54	86	104	270
Paddy rice - one crop (ha)	1	0	33	66	105	127	330
<b>Community-based Management</b>	<b>Forest</b>						
Bamboo (ha)	1	0	60	90	100	0	250
Red Cardamom (ha)	1	0	165	248	275	0	688
Bamboo shoot (ha)	1	0	75	113	125	0	313
<b>On-farm innovation</b>							
Biogas (each)	Each	0	40	50	60	0	150
Fuel efficient stove (each)	Each	0	120	150	180	0	450
Fish pond production (ha)	1	0	24	30	36	0	90
Home gardens (ha)	1	0	12	15	18	0	45

**Table 8. Estimated number of beneficiary vulnerable households by development activity**

Activity	Area developed	Area allocated per vulnerable household (ha)	Number of beneficiary households
<b>Irrigated crops</b>			
Vegetables – one crop	270	0.3	900
Paddy rice – one crop	330	0.3	1,100
<b>Sub-total</b>	<b>600</b>		<b>2,000</b>
<b>CBFM</b>			
Bamboo	250	0.5	500
Red cardamom	688	0.5	1,375
Bamboo shoot	313	0.5	625
<b>Sub-total</b>	<b>1,250</b>		<b>2,500</b>
<b>Innovation</b>			
Biogas (each)	150		150
Fuel efficient stove (each)	450		450
Home garden (ha)	90	0.2	450
Fish pond (ha)	45	0.1	450
<b>Sub-total</b>			<b>1,500</b>
<b>Total</b>			<b>6,000</b>

109. Key project investments include paddy rice, irrigated field vegetables, cardamom, bamboo, bamboo sprouts, fish aquaculture and home garden production. All investments show positive financial and economic return rates. The two technical innovations are fuel efficient stoves and biogas production. The programme supports all investments through investment grants, capacity building, technical advisory services, marketing advice and one time working capital in the form of seeds and planting materials. Farmers will benefit from more climate secure and diverse income streams, reduced labour requirements (except for irrigated crops) and improved health from reduced smoke inhalation. The SACCC will also have a positive impact on nutrition as a result of the availability of a wider range of food crops, improved productivity and capacity building of families, particularly of women.

110. **Economic viability.** The economic internal rate of return (EIRR), net present value (NPV), and benefit cost ratio (BCR) were estimated using a 20 year incremental cash flow of benefit and cost streams. Overall Project EIRR is 28%<sup>30</sup>. The estimated NPV for a 10% discount rate<sup>31</sup> is USD 17.79 million, indicating that programme investments are sound and robust. **Sensitivity analysis** shows that an increase in Programme costs by 20 percent will reduce the EIRR to 20 percent, while a decrease in overall Programme benefits by 20% will result in an EIRR of 18 percent. A one-year delay in benefits reduces the EIRR to 20 percent and a two-year delay to 15 percent. The switching values show that the Programme will remain economically viable if benefits decreased by 36 percent or Programme costs increased by 57 percent.

## D. Sustainability

111. The Component emphasises the building of capacity in existing public institutions at all levels, from the village through to the national level. This is particularly important for the development of sound planning and policy with respect to CC adaptation. This investment in public processes and capacity will ensure that this crucial element to enable an accurate response to CC factors will remain

<sup>30</sup> Financial internal rate of return of the project is 25% with an NPV of LAK 53.1 billion. See Appendix 10, Table C for details.

<sup>31</sup> The one year Lao commercial bank term deposit rate of 10% has been used as a discount factor.

embedded within the civil service and the society it serves. Moreover, the utility of this development of processes and capacity is that it can be replicated throughout the country as systems become functional and proven in the programme provinces.

112. Target communities will have a high level of 'ownership' of participation and human, social, natural and physical capitalization in terms of activities to be implemented in their villages through adoption of their LAIP, tailor-made technical responses and O&M;

113. The supported production-related activities are designed to be CC adapted and environmentally sustainable; Production models will be compatible with the local production activities, which are profitable at current prices with full accounting of operating and capital costs. Demand for these products is based on local consumption markets, with potential of export sales;

114. The design emphasises the development of self-sustaining community-based organisations and village M&E and users' groups that will be strengthened to play a key role in the implementation and on-going management of programme activities where applicable;

115. Overall, strengthening of the capacity of grassroots institutions and their support services is considered to be the most effective means of ensuring sustainability after the immediate programme implementation period. The SACCC design emphasises developing the management and technical skills of stakeholders at all levels.

116. **Environmental impact** .The SACCC focuses mainly on support to the improvement of community resilience and the reduction of vulnerability to CC challenges through, sustainable natural resources management, household-based and climate adapted products and technologies with premium price potentials, small-scale community infrastructures, and climate vulnerable men and women's access to premium markets. Most of the envisaged activities will focus on the construction of small-scale community-based infrastructure, capacity building, income diversification and productivity improvement. It will not cause adverse environmental impacts but improve the quality and carrying capacity of the environment. Concepts and techniques of CC adaptation, environment protection and resource conservation will be introduced to the beneficiaries at the time the programme support is offered, in association with community-based participatory planning, infrastructure building, and household-based production models. The interventions related to the technical service support are to improve the capacity of farmers and in turn increase productivity in the Programme area through introducing updated methods and technologies of CC adaptation that will upgrade the basis for environmental-friendly and climate-oriented production. The support to the technical line agencies will improve the effectiveness of technical services, including training on the good practices and CC adapted approaches. As per Government's procedures a rapid environmental assessment will be conducted with the support of UN-Habitat before construction of each small-scale water infrastructure and a year after infrastructure's completion.

117. Based on the above outlines of the expected scale of positive impacts and in contrasts to the relatively minor risks, the Programme should be conservatively classified for the purposes of environmental scrutiny as Category B. Local stakeholders are aware of the CC and environmental issues and continued attention will be paid to monitoring the related evolution.



## Appendix 1: Country and rural context background

1. Over the last two decades, the Lao PDR has been experiencing 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, which dropped from 46% of the population in the mid-90s to 27.6% in 2008<sup>32</sup>. The poorest groups in the lowlands are those who have been resettled from mountain regions. In terms of UNDP multidimensional poverty index, 47.2 percent of the population lived in multidimensional poverty in 2013<sup>33</sup> while an additional 14.1 percent were vulnerable to multiple deprivations. The intensity of deprivation in Lao PDR was 56.5 percent. Improved education and health have also contributed to increased human development, which grew by an annual average of 1.59% since 1990. The PDR's HDI value for 2012 was 0.543 — in the medium human development category — positioning the country at 138 out of 187 countries and territories, a rank shared with Cambodia. 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 has remained a predominantly rural phenomenon: Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live. In upland areas, the poverty rate is as high as 43%, compared with about 28% in the lowlands.

2. **Agriculture and Agri-business.** While the GDP share of agriculture declined from 53% to 26% between 2000 and 2013, the primary sector remains the largest source of employment: over 75% 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. Much of the growth is due to the expansion of cultivated surfaces to accommodate a rural workforce growing by an annual 2.5%. 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, climate risks, as well as farmer's risk aversion strategies. While rice is the 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 rapidly. In the SACCC target areas most agri-businesses comprise small scale Vietnamese, Thai and Lao traders, with some processing facilities. These traders work often through middle-level intermediaries, operating between farmers and traders.

3. **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 41% of children under the age of five in the rural areas that suffer from chronic malnutrition. 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

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<sup>32</sup> The most recent survey data available for estimating MPI figures for Lao People's Democratic Republic were collected in 2006. UNDP Human Development Index Report 2013

<sup>33</sup> UNDP Human Development Index 2013

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) 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.

4. **Climate Change.** 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 region<sup>34</sup>. 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 affected about 200,000 people and killed 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 Xiengkhuang, Xekong and Attapeu, while those with a larger proportion of villages at high risk of droughts are Savannakhet and Huaphanh. Moreover, as time passes the risks tend to expand from north to south.

5. During 1966 to 2009, 36 climate-related hazards in Lao PDR were classified as global hazards. Flooding was the most frequent hazard, followed by health epidemics, storms and droughts<sup>35</sup>. About three-fourths of the disasters in Lao PDR during this period were climate-related. Assessments show that about half of these hazards occurred between 1966 and 1992, a period of 26 years, while the other half occurred between 1992 and 2009, a period of only 17 years. Thus, the frequency of the climate related hazards in Lao PDR increased from about once every two years before 1992 to every year or even twice a year after 1992. Floods normally occur from May to September when monsoon rains accumulate in the upper Mekong River basin, while droughts happen between November and March. Flash floods in the northern mountainous areas also are common. Areas affected by floods also grew at an accelerated pace during the last two decades (1992-2009). Areas flooded before 2002 were less than 1,200 sq.km, while in 2009 alone more than 2,500 sq.km of land was flooded<sup>36</sup>. The country is also very vulnerable to droughts. Five droughts have affected the population over the past 40 years. Occurrence of drought has also become more frequent. It is estimated that around 188,000 households in Lao PDR are at risk of food insecurity caused by drought.

6. Projected changes in Lao's climate show that mean annual temperatures are likely to increase by 1.4 to 4.3oC by 2100, with similar projected rates of warming for all seasons. Mean annual rainfall is also projected to increase, with the most significant increases expected in the wet season. All models including that focusing on regional patterns predict climate change scenarios reveal an increase in magnitude and frequency of extreme events.

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<sup>34</sup> Yusuf A. A. and Francisco, H. A., 2009, Climate Change Vulnerability Mapping for Southeast Asia, IDRCSIDA-EEPSEA-CIDA.

<sup>35</sup> Based on OFDA/CRED International Disaster Database.

<sup>36</sup> Ministry of Natural Resources and Environment, 2013, Second National Communication on Climate Change

7. 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).

8. 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 7th National Socio-Economic Development Plan (2011-2015), 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.

9. The NAPA was released in May 2009 and contains 45 priority projects totaling USD 85 million within four identified sectors. The NAPA acts as a central framework for climate change adaptation action. Among the 45 projects, 12 projects were listed as top priority for adaptation actions in the country. They are:

Sector	Projects
Agriculture	<ol style="list-style-type: none"> <li>1. Strengthen the capacities of National Disaster Management Committees</li> <li>2. Promote secondary professions to improve the livelihoods of farmers affected by natural disasters induced by climate change</li> </ol>
Forestry	<ol style="list-style-type: none"> <li>1. Continue a slash-and-bum eradication programme and a permanent job creation programme</li> <li>2. Strengthen the capacity of village forestry volunteers in forest planting, caring and management techniques, as well as in the use of village forests</li> </ol>
Water	<ol style="list-style-type: none"> <li>1. Raise awareness on water and water resource management</li> <li>2. Map flood-prone areas</li> <li>3. Establish an early warning system for flood-prone areas, and improve and expand meteorology and hydrology network and weather monitoring systems</li> <li>4. Strengthen institutional and human resource capacities related to water and water resource management</li> <li>5. Survey underground water sources in drought-prone areas</li> <li>6. Study, design and build multi-use reservoirs in drought-prone areas</li> </ol>
Public Health	<ol style="list-style-type: none"> <li>1. Improve systems for the sustainable use of drinking water and sanitation. with community participation, in flood- and drought- prone areas</li> <li>2. Improve knowledge and skills of engineers who design and build water and sanitation systems</li> </ol>

10. The Second National Communication on Climate Change to UNFCC highlights urgent policy reforms and national action to address existing climate threats and the risks of climate hazards that

Lao PDR is encountering. The assessment shows that while National Adaptation Plan of Action (NAPA), discussed below, has provided a window for climate change adaptation action, the scale of interventions and their impact is small compared to the needs of the population. Similarly, while the GoL PDR has already integrated the National Climate Change Strategy into sectoral and national development policies and planning more effective mainstreaming and coordinated responses are necessary. As such the report recommends holistic approaches to climate change action combined with poverty reduction. As for capacity building, the country requires sustained efforts in building expertise and knowledge on climate change among the national cadre in order to reduce dependency on foreign experts. A key future pathway to enhance capacity is regional cooperation. Tropical countries of the ASEAN region and Mekong sub-region have many similar social and economic structures. Strengthening of regional cooperation will make technological transfers and knowledge exchange more practical, applicable and cost-effective.

11. 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

12. Overview of main CCA programs in Laos. 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, World Bank, IFAD, World Wildlife Fund (WWF), Mekong River Commission (MRC), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), International Union for the Conservation of Nature (IUCN), and AFD.

13. 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.

14. UNDP support in 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. UNDP also implements a Small Grants Programme funded by AusAID, the Mekong and Asia Pacific (MAP), Community-Based Adaptation and (CBA) Programme (August 2009 – June 2014) to improve the adaptive capacity of communities, thereby reducing their vulnerability to the adverse effects of climate change risks and a joint project with FAO on the conservation and sustainable use of globally important agricultural heritage systems and landscapes and their associated agricultural biodiversity and knowledge systems. UNDP in collaboration with GOL PDR have also developed follow up projects to NAPA on agriculture development. This includes a project proposal on improving the resilience of the agriculture sector to climate change impacts. The

four-year project, from 2011 to 2014, aims at minimizing food insecurity resulting from climate change and at reducing the vulnerability of farmers to extreme flooding and droughts. This project, implemented by the Ministry of Agriculture and Forestry, is designed to produce four outcomes in the areas of knowledge management, capacity building, community-based agricultural adaptation practices, and adaptation learning. A second project following the NAPA proposed activities relates to effective governance for small-scale rural infrastructure and disaster preparedness in a changing climate. The project objective is to improve local administrative systems affecting the provision and maintenance of small-scale rural infrastructure (including water and disaster preparedness), through participatory decision making.

15. 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. The World Bank also implements the Upland Food Security Improvement Project with funding from EU which helps to address food security in poor villages through improved rice-based farming and at the same time address recovery needs of cyclone affected households in Xekong, Salavanh and Attepeu provinces. 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.

16. Preliminary analysis on most relevant and opportune national strategies/policies/programs for the SACCC-FNML scaling up program. This includes programs like EU/GCCA (CARE/IUCN/CIRAD). The FNML links up to numerous ongoing country interventions. Given the large number of potential stakeholders and actors, the programme aims to maximize networking and strategies on the basis of existing lessons and experiences. The areas of intervention of the programme are embedded in the national policies and platforms that aim to reduce climate change vulnerabilities. This includes the NAPA which provides specific measures for the agriculture sector include the following: promotion of climate-resilient crop varieties and 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 organisations, as well as of extension staff. Similarly the National Strategy on Climate Change 2010 highlights priorities such as reducing emissions from livestock manure through balanced feeding, lowering the N content of the animal feeds, anaerobic digestion for methane production 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 and accelerating the development of such renewable energy sources such as solar and wind as well as hydropower including micro-hydro<sup>37</sup> - household-based, institution-based and/or community-based – especially for remote communities.

17. SACCC's implementation can be strengthening through linkages with a range of partners and programs. For example the Improved Cook Stoves (ICS) program supported by SNV with the Lao non-for-profit association Normai which manages activities such as training, knowledge exchange, and monitoring can be leveraged to support the SACCC activities. The ICS program has developed

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<sup>37</sup> Micro-hydro are small generators run on water diverted from a stream or river for generating about 10kW of electricity. They are ideal for powering the post-harvest processing envisaged under the FNML project. These systems have been tested by the Intermediate Technology Development Group (ITDG now known as Practical Action) and they have zero, to minimal, environmental impact.



and promotes the Tao Payat stove that uses up to 20% less wood and charcoal than traditional stoves (such as the Tao Lai and Tao Dam).

18. Partnerships with research programs led by French Agricultural Research Centre for International Development CIRAD/AFD on community led solutions to agriculture conservation can be integrated into the SACCC to build on existing platforms and support. Given that the programme targets same provinces as the World Bank Upland Food Security Improvement Project, the SACCC can broker knowledge and lessons from the region through collaboration with the World Bank. Similar linkages will be sought with the Asian Development Bank (AsDB) Biodiversity Corridors project and the Northern Uplands Project offers similar platforms given similar geographic focus and implementation focus on land management, natural resource management and local development which are key to the success of FNML and SACCC. The programme can also greatly benefit from engagement with Oxfam's interventions on community based natural resource management and disaster risk reduction with particular focus on driving community ownership and participation. It is also recommended that the programme builds links with the NAPA follow up project developed by UNDP on Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS) which has strong focus on land management, natural resource conservation and building institutional capacity particularly focusing on research and data collection and strengthening knowledge sharing. Additional linkages opportunities include the UNDP Effective governance for small-scale rural infrastructure and disaster preparedness in a changing climate (LDCF2) project, the UNCDF Local Climate Adaptive Living Facility (LoCAL) and the planned FAO-GEF Strengthening agro-climate and information systems to Improve adaptation to climate change and food security in Lao PDR and UNDP-GEF Sustainable Forest and Land Management in the Dry Dipterocarp Forest Ecosystems of Southern Lao PDR.

19. **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 1990s<sup>38</sup> 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

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<sup>38</sup> 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

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 finalized in 2014.

20. **Ethnic People.** Laos is ethnically diverse; the population includes about forty-nine ethnic groups and more than two hundred subgroups. The majority of Laos's population is Lao which accounts for 55 percent of the whole population. About 11 percent are Khamu, 8 percent Hmong, and the rest are other ethnic groups including Akha, Singkil, Lue, Lamed, Tai, Katu, Triang and Harak, Oy, Nyaheun, Sedang, Lavae and Brao. The different ethnic groups have substantially different residential patterns, agricultural practices, forms of village governance, and religious beliefs. Government policy emphasizes the multiethnic nature of the nation. FNML target villages and *swidden*/rice agricultural activities are coming increasingly under pressure from recent land reform programmes aimed at discouraging deforestation and slash-and-burn agriculture, and at developing private ownership of land.

21. FNML target group speaks various languages of the Austroasiatic family and has not developed a written scripts. 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 twenty and thirty households, but can include up to 50 households. Most of the target population rely on *swidden* rice cultivation as the basis of their household economy. Lamet and Khaamu prefer glutinous rice, but some other groups prefer to eat ordinary rice. 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 and Non-Timber Forest Products (NTFPs) are thus 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.

22. 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.

23. 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.

24. **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 survival<sup>39</sup>. 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.

25. **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. 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 mainstreaming; 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

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<sup>39</sup> Practitioners and Policy-makers Exchange on Climate Change Adaptation, in Agriculture. Regional Climate Change Adaptation Knowledge Platform for Asia, 2011



requirements and product preparation, of adequate storage or processing infrastructure and of appropriate transport affect farmers' capacities to add value to their produce. 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 and 9%. 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.

26. 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.

27. Policies for rural growth. The GoL 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 7th NSED (2011-2015) include: (i) ensuring an annual GDP growth rate of at least 8%, an annual growth in the agriculture sector of at least 3%, and a GDP per capita of at least USD 1,700; (ii) achieving the MDGs by 2015 and reducing the proportion of poor households to less than 11% by 2015; (iii) enhancing international trade and economic cooperation and achieving full international integration; and (iv) ensuring that 65% of the total area of the country is under forest. 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 agro-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 agro-ecological potential. With regard to land, the current framework focuses on the development of community-based, PLUP and on land titling as the two main instruments 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.

28. Socio-economic Development Planning. The Ministry of Planning and Investment (MPI) guided<sup>40</sup> 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

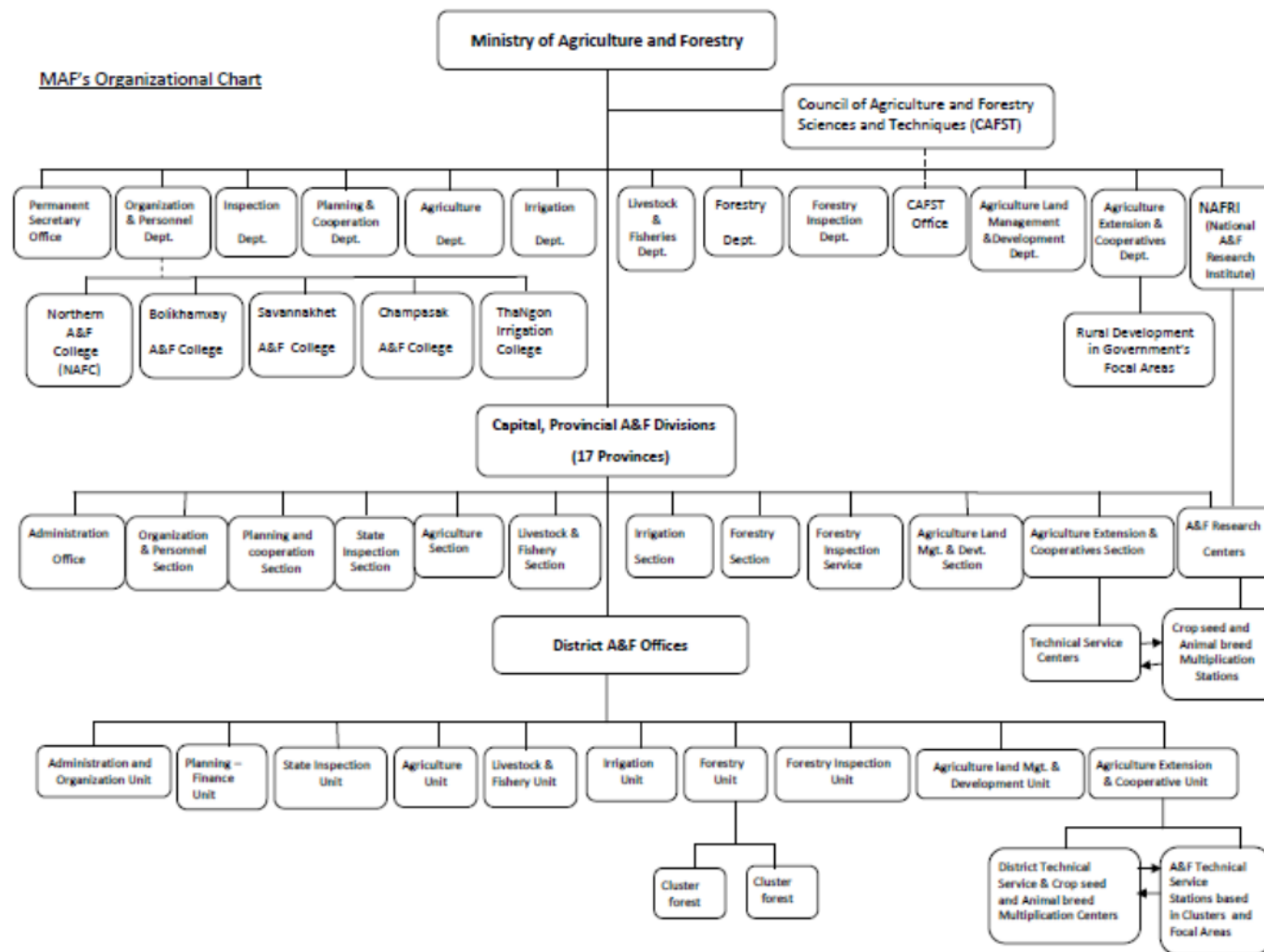
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<sup>40</sup> Provincial Departments for Planning and Investment guide district planning activities.

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. Planning at district level in Laos has recently been strengthened through the GIZ financed "Land management – Rural Economic Development (LM-RED) project and a Finnish financed initiative that supports this process, focusing on developing related principles on land use planning at local level. The UNDP/UNCDF Governance and Public Administration Reform (GPAR) Component has also been helping to develop and strengthen the district planning process. The GPAR has piloted a District Development Fund (DDF) mechanism in Salavanh province since 2005 and further expanded it to Oudomxay, Houaphanh, Xiengkhouang and Xekong.

29. 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. 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 Figure 1 below.

Figure 1 Ministry of Agriculture and Forestry Organogram





## Appendix 2: Poverty, targeting and gender

### POVERTY CONTEXT IN THE TARGET AREA

1. The SACCC will be implemented in the five FNML districts that are located at the south-eastern tip of Laos and along the Vietnamese border:

- Phouvong and Xansay (province of Attapeu);
- Dakcheung (province of Xekong);
- Ta'Oy and Samuay (province of Salavanhh).

2. With the exception of Phouvong, they are all upland districts, where the rural poor are confronted to additional constraints resulting from remoteness and isolation. Phouvong and Xansay are covered by IFAD-financed Rural Livelihoods Improvement Programme in Attapeu Province (RLIP), which is ending in March 2014.

3. Poverty incidence. A poverty, gender and ethnic group assessment was undertaken in the target areas in September 2012 to inform the first FNML design mission. All of the target districts belong to the 40 districts (out of 141) that were identified as very poor and high priority by the National Growth and Poverty Eradication Strategy (2003). Using data from the 2003 Lao Expenditure and Consumption Surveys and from the 2005 National Population and Housing Census, a 2008 study<sup>41</sup> estimated the incidence of poverty and other measures of welfare at a spatially disaggregated level. All of the five districts were found to have more than 60% of the population living below the poverty line, i.e. the amount of money required to purchase 2,100 calories per person per day, plus a non-food allowance. In fact, the highest poverty rates in the country were found in the mountainous parts of the south, along the border with Vietnam, where are located the upland target districts.

4. Data collected by the FNML design mission at district level further indicates that: (i) about 50% of Phouvong households are poor; (ii) over two-thirds of households in the other districts live below the poverty line; and (iii) in Ta'Oy and Samuay, all the villages are poor. According to Prime Minister's Decree 201/PM on the Poverty Classification and Development Standards (April 2012), a poor household is one that has an average income per person per month that is less than LAK 180,000 (USD 22.5). A village is deemed poor when it has more than 50% of poor households, does not have clean water access, needs more than one hour to walk to the nearest primary school and more than two hours to the closest clinic or hospital. Table 1 shows poverty incidence in the five target districts.

**Table 1 – Poverty incidence in target districts**

District	Number of <i>kum ban</i>	Number of villages	Number of poor villages	Population	Households (HH)	Poor households	% of poor HH/total HH
Phouvong	4	16	3	11,967	2,395	1,153	48%
Xansay	5	42	36	20,783	4,091	2,738	67%
Dakcheung	8	77	69	21,168	3,288	1,866	57%
Ta'Oy	5	58	57	28,465	4,289	3,976	93%
Samuay	4	52	51	14,840	2,486	2,348	94%
<b>Total</b>	<b>26</b>	<b>245</b>	<b>216</b>	<b>97,223</b>	<b>16,549</b>	<b>12,081</b>	<b>73%</b>

Source: data provided by district administrations, October 2012

5. **Ethnic groups.** The five target districts, and especially the four upland districts (Dakcheung, Ta'Oy, Samuay and most of Xansay), host a large diversity of Mon-Khmer ethnic groups and only a very small fraction of Lao-Tai ethnic groups, as shown by Table 2.

<sup>41</sup> Epprecht et al., The Geography of Poverty and Inequality in the Lao PDR, 2008.

**Table 2 – Main ethnic groups in target districts**

Ethnic group	Phouvong	Xansay	Dakcheung	Ta'Oy	Samuay
<b>Bla</b>	95%	1,475	-	-	-
<b>Sadang</b>	n.a.	-	-	-	-
<b>Lao Tai</b>	n.a.	162	n.a.	907	n.a.
<b>Alak</b>	-	4,720	-	-	-
<b>Tahan</b>	-	3,167	-	-	-
<b>Katu</b>	-	-	n.a.	-	-
<b>Trieng</b>	-	-	n.a.	-	-
<b>Krieng</b>	-	-	n.a.	-	-
<b>Katang</b>	-	-	-	11,735	-
<b>Ta'Oy</b>	-	-	-	10,051	-
<b>Pako</b>	-	-	-	5,722	6,364
<b>Kanay</b>	-	-	-	-	2,335
<b>Kado</b>	-	-	-	-	1,661

Source: data provided by district administrations, October 2012

n.a. = not available

6. According to the WFP/EU sponsored Comprehensive Food Security and Vulnerability Analysis (2006), ethnic groups are among the most disadvantaged and food insecure, and are highly vulnerable to nutritional problems. In the uplands, which make up most of the target area, they live in small, scattered settlements, with limited connections to the main road networks and with limited access to social services, including water. Isolation is further reinforced by lower education, illiteracy and lack of Lao language skills.

7. Rural livelihoods. In the uplands, poor families practice rain-fed agriculture through shifting cultivation, rear livestock, collect NTFPs and do some traditional handicrafts (textile and basket weaving, blacksmith). Rice is cultivated upland and, over smaller surfaces, on paddy fields. It is destined to home consumption, covering 4-9 months of household needs on average<sup>42</sup>. 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. Coffee has been developing both with RLIP support (Xansay) but also spontaneously, including by poorer households (Dakcheung). Livestock rearing (cattle and small animals) is used as cash buffer in some the villages to complement the family's diet.<sup>43</sup> 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 even cultivated (bong, cardamom, broom grass) for sale earning between 1,500 to 5,000 kip for bong, depending on its quality. Additionally, in some cases both men and women sell their workforce, including on distant commercial plantations where they spend several months living in camps. In the lowlands (Phouvong and 10% of Xansay), 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 a lesser access to NTFPs as forest resources have been considerably reduced and their livestock is more prone to disease than in the uplands. Coping strategies are mostly based on diversification, the harvesting and selling of NTFPs, and on selling workforce. While there is a Nayoby Bank agency in every capital district, poorer families are afraid to take loans as they fear they will not be able to pay back.

8. Remote ethnic women and livelihood practices. According to official statistics, less than 10% of households are headed by women. Findings from the FNML suggest FHH nutrition and incomes levels might be particularly low in FHH 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. Women do most of the farm work (planting, weeding and harvesting crops), tend small livestock, collect NTFPs (men occasionally hunt wild animals in some villages). Hard work is associated with women's virtue,

<sup>42</sup> From field visits, poverty analysis carried out prior to design mission and interviews with DAFOs.

reinforced by the cultural norms that good women are strong, dutiful and do not complain<sup>44</sup>. Over 70% of female farmers FGD participants said they spend as much as twelve hours performing off-farm and households chores like collecting firewood, preparing meals and caring for children. In the dry season when NFTP are scarce, women walk an average of one extra hour. Based on the findings of the FNML, 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 HH with an average of five different vegetables,<sup>45</sup> although in inadequate amounts.

9. **Ethnic women in the public sphere.** Extension services and project-supported, meetings are typically held in Lao (which they are not familiar with) and at times of the day where women are in the fields. In general, women seldom speak in village meetings, 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 she is therefore 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. Illiteracy ranges from 55% for females, and 75% for males, cultural patterns and resultant lack of free time further limits the quality of women's participation<sup>46</sup>.

10. In spite of these constraints, FGD findings from the second FNML design mission actually reveal the potential for greater involvement of women in FNML if Community Development Officers are well versed in PLA or GALS techniques and able to reach remote villages on a regular basis.<sup>47</sup> Of the villages visited by one consultant, 60% of females either approved of or wanted to be involved in farmer groups. Over 40% of FGD's conducted revealed either one or more of the following traits: a vocal female able to translate or speak up on behalf of other women, an informed LWU representative, knowledgeable about home gardening and/or nutrition. Coping strategies to address double-duty workloads, as suggested by female FGD participants, include: setting and knowing in advance, an agreed "appointment" during the day, agreeing with male HH members that farm-work will be temporarily halted in preference for attending farm groups, greater labor-sharing duties for males (suggested in four out of eleven villages visited). Feedback from 53% of FGD's conducted; suggest the existence of labour-sharing. Of this figure, an additional 57% of FGD's conducted (all coffee producing villages) showed a clear division of labour directly reducing female productive workloads. Remote villages involved in HPV commodities also seem to have a greater tendency for labour-sharing practices, suggesting the benefits of raising awareness about the value of women's time in productive terms. Where there is evidence of useful labour-sharing FNML can conduct mix-gender group work. However, in villages with rigid gendered division of labour, women will benefit more from women-only group work facilitated by mix-gender, qualified PLA/GAL facilitators.

11. **Ethnic women and resource management.** In many ethnic groups women are seen as the "purse" keeping the money safe, but not necessarily having decision-making powers over how it is spent. There is, however, evidence of men listening to the advice of their wives in financial matters<sup>48</sup>, of female farmer role models able to take advantage of FNML farmer to farmer exchanges and of women who are eager to hear of 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.

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<sup>44</sup> Albone S. (June 2011) Gender and Power Analysis for Remote Ethnic Groups , CARE International in Lao PDR Publication

<sup>45</sup> The range included: pumpkin, cucumber, garlic, chili, salad, beans, eggplants, cassava, onion, sweet potatoes, maize, and other green leafy vegetables.

<sup>46</sup> Comprehensive Food Security & Vulnerability Analysis (CFSVA) World Food Programme, Lao PDR, Oct-Nov 2006

<sup>47</sup> FGD meetings were either women-only or women friendly. Women were asked to sit closer to the FGD interviewers, at the forefront of the meetings, given more eye contact by the female FGD interviewer, prompted for ideas etc.

<sup>48</sup> Most of the group lending involves pair's decision and co-signing on loan contract

12. Ethnicity played less of a determining factor on equitable gender relations than the proximity of the road and the awareness of the value of joint HH labour in high product value HPVs. Unemployed young males from the uplands who are living far from the main road, were eager to hear of income generation ideas and to participate in farmer groups. This target group also serve as potential income generators and beneficiaries of PLA facilitated village development planning VDP group work.

13. The convergence of health, agriculture, commercial trade and water and sanitation sectors offers opportunities to pilot an incentive scheme for farmer groups. Pregnant women are expected to continue a heavy burden of work before and after birth, affecting the prevalence of stunting in new-borns and children under five. The programme will collaborate with UNICEF and possibly CARE International to test the benefits felt by different groups of females, with regard to the reduction in the burden of work and increased decision-making behaviour concerning access to and control of resources.

14. Household assets varied from HH to HH and village to village. Few farmers used cattle for increasing their crop production, although there is anecdotal evidence from two cases that manure has increased crop yield. Most farmers did not have access to mechanized equipment or transport. Women relied on baskets and plastic containers to carry heavy items such as wood, water, NTFPs and coffee.

15. A number of common features and trends shared by poor households over the five target districts were taken into account in designing the programme and its targeting strategy:

- *access to markets*: while subsistence agriculture remains a predominant activity, even the poorest farmers already have interaction with the market, albeit at a very small scale. Small surpluses are marketed via intermediaries on local markets or, most of the time, on across-the-border markets. Maize, livestock and NTFPs are grown for consumption and small surpluses are marketed to domestic markets and to Vietnamese middlemen. Current market linkages are very weak due to several factors: (i) limited surplus of lower quality has no attractiveness for intermediaries or local/foreign buyers; (ii) infrastructure, mainly roads, are often of poor quality and prevent buyers from coming during the rainy season; (iii) low prices paid by intermediaries do not constitute an incentive for farmers to produce more; (iv) farmers only get a small share of the value added as no primary processing is being undertaken at village level; and (v) value chains are currently not organised and the lack of farmers' organisations constitutes a hindering factor to sustainable linkages between producers and markets. However, private investors, national ones as well as from Vietnam and Thailand, start purchasing a growing range of products from local farmers, including maize and cassava for animal feed (planned processing factories in Ta'Oy and Samuay and at the provincial capital of Salavanh), vegetables and pigs (Xansay), or coffee (Xansay and Dakcheung). These new markets offer new sources of cash to farmers, but they also induce them to change their traditionally diversified production systems and meet trader's terms and conditions;
- *diversification*: the diversification of activities is a key feature of current livelihoods systems, which helps in mitigating risks and in absorbing shocks, and generates both food and cash. Any changes to the current systems should aim at achieving concurrently food security and income raising, rather than putting farmers at risk of becoming food insecure when the marketing of cash crops does not reap expected benefits. This will require to preserve some diversity rather than promoting mono-cultures and single-occupation farming;
- *lack of labour*: labour is a constraining factor that affects the extent of agriculture activities that poor households can take up. This calls for making affordable resources accessible to pay for labour (for example for land clearing to plant perennials) as well as for favouring crops that can fetch high prices for small volumes. Under the SACCC, a reduction in women's labour requirements will arise from the introduction of forestry activities, efficient cooking stoves and biogas while an increase will occur as a result of the change in the cropping pattern. The latter change will benefit women through higher returns per labour day, with the demand for women's labour also partially offset by adaptive technology (e.g. direct seeding



of paddy rice, mechanised threshing) and the use of employed labour at times of peak labour demand;

- *lack of soil fertility*: soils are mainly acrisols and lavisols, requiring cautious management due to their weak structural fertility which leads to soil erosion and crust formation. Furthermore decreasing fallow duration caused by government restrictions on shifting agriculture induces losses of fertility, as it is usually not compensated by new agronomic practices for better soil management. Decreasing yields and soil fertility, as well as increasing soil erosion due to inadequate soil use, call for promoting sustainable agriculture intensification, to increase both land and labour productivity;
- *remoteness*: in the uplands in particular, many villages have difficult road connections and are not accessible in the rainy season, which reduces market opportunities and the possibility to negotiate better prices with traders, as well as the outreach of DAFOs extensionists. This will improve with the asphaltting/rehabilitation of provincial roads currently carried out in Xekong (KFW) and Attapeu (China) provinces, as well as with the planned rehabilitation works in Salavanh Province (ADB), which will connect target districts to market outlets in provincial capitals;
- *concessions and pressure on land*: concessions for mining, hydropower schemes, commercial plantations or tourism have been allocated by the government to private, mainly foreign, companies, or are being planned as reported to the design mission. Comprehensive data, particularly with regard to plans, is difficult to access. Information provided by the Province of Attapeu shows that between 2010 and 2012, 16 contracts were signed for survey and mining businesses for a total of 5,180 km<sup>2</sup>. Such concessions reduce the extent of land available for traditional swidden cultivation in the uplands, which in turn results in increased soil erosion as well as in decreasing yields and soil fertility. Deforestation reduces the safety net provided by the foraging of forest resources, causing families to increase cash expenditure for food and further reducing their investment capacities. Additionally, concessions are a massive cause for forcing or inducing people to abandon their homes and their land and to resettle into new villages;
- *resettlement*: another cause for resettlement in the uplands is the government's objective to promote village consolidation to facilitate the provision of public services. Available research<sup>49</sup> points to the overwhelmingly negative effects of village resettlement, including impoverishment, declining food production (due to increased population and land degradation), increased food insecurity, higher incidence of disease, and conflicts between resettled and local people;
- *UXO*: to this day, the impact of the bombing of the 1963-73 war (the heaviest bombing per capita in the world) is still felt in the target area, which was traversed by the Ho Chi Minh trail. It is estimated that 30% of the bombs dropped did not explode and are still to be found in the forest, fallow land, or even cultivated areas. Only in 2011, the Lao National Unexploded Ordnance Programme (UXO LAO) cleared between 1,081 (Attapeu) and 2,370 (Salavanh) UXO, including bombs and grenades;
- *natural disasters*: recent events and general forecasts<sup>50</sup> indicate that climate change, particularly in the Southern provinces, is likely to cause increased droughts, increased and more intense floods resulting from augmenting water levels in the Mekong Basin, as well as more frequent tropical storms. Landslides are also a common phenomenon. Acrisols and oxisols, which are common in the target area, are also more vulnerable to droughts.

## TARGETING AND GENDER MAINSTREAMING MECHANISMS

### Targeting and Gender Mainstreaming Strategy.

16. **Targeting.** The Intergovernmental Panel on Climate Change (IPCC 2001) defines vulnerability to climate change as: "The degree to which a system is susceptible, or unable to cope with adverse effects of climate change, including climate variability and extremes, and vulnerability is a function of

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<sup>49</sup> For example Baird Ian and Shoemaker Bruce, *Unsettling experiences: Internal resettlement and international aid agencies in Laos*, Development and Change, 2007 and Cunnington Paul, *Village resettlement in Laos*, European Commission, 2011.

<sup>50</sup> National Adaptation Programme of Action to Climate Change, April 2009.

the character, magnitude and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity.” The SACCC will build off existing CC vulnerability assessments in Laos to rank CC vulnerability at kum ban, village level in the Programme area. Vulnerability at kum ban/village levels will be assessed on the basis of, *inter alia*, (i) the extent to which systems are exposed to climate change; (ii) the extent to which systems are sensitive to this exposure; and (iii) the capacity of systems to adapt to exposure and sensitivity. Systems are understood as providing a ‘gateway’ to those services that enable households and communities to adapt to the impacts of climate change. The determination of kum ban vulnerability will be assisted by the development of an appropriate GIS database. Output investments will be directed to those kum bans considered most vulnerable to climate change. Building off the kum ban/village vulnerability assessment, the SACCC will support DDST staff, to conduct further assessments of highly vulnerable FNML kum bans/villages, generating data/perceptions on localized CC impacts, most vulnerable groups, water availability scenarios (scenarios on CC impact on available water sources) and water demand projections (population increase, multiple water uses). Based on these investigative studies the underlying causes of problems, as identified in the planning process by communities, can be analysed and appropriate adaptation investment and natural resource protection and management measures can be designed. This assessment will disaggregate male and female’s information from each household and will collect an inventory of family assets, data on main sources of income, and other socio-economic information in order to analyse patterns of socially differentiated access to infrastructure and other livelihood assets.

17. The FNML Targeting and Gender Action Plan, will incorporate the results of these studies with a view to ensure women and poorer groups’ access to programme benefits, specifying expected outcomes and related indicators, as well as data collection and analysis to monitor change. The FNML will prepare an Implementation Plan, to which the SACCC will contribute, which will be updated annually, in conjunction with AWPB preparation.

18. Gender Mainstreaming. In conjunction with the Lao Women Union (LWU), FNML will promote gender equity mainstreaming as well as women’s participation in business partnerships and value chain development, assisting them to gain equal access to agricultural support and financial services, as well as to play an active role in farmers’ groups. Specific measures detailed in the Action Plan include: (i) ensuring that both male and female family members have access to PLA group work technical training and other capacity development activities, with a target of 50% women in mixed gender groups; (ii) promoting higher quality female participation in farmers’ organisations decision-making bodies, with a target of at least 33% women; (iii) developing the capacities of extensionists to include women, and, where appropriate, organising special sessions for women; including gender audits in annual farmer groups’ capacity assessments; (iv) supporting farmers’ groups to increase the number of women members, including in leadership, and to ensure that they have equal or better access to services; (v) supporting women groups where appropriate (and notably for nutrition activities); (vi) disaggregating M&E data and analysis by gender; and (vii) supporting the recruitment of women to ensure gender-balanced programme implementers teams at all levels.

19. Additionally, FNML will build on the “3 good” approach implemented by the LWU within RLIP<sup>51</sup> and will explore the application of the “household methodologies” approach, both of which aim at increasing gender equity within the family. The approach has proven to be reasonably effective to secure a fairer distribution of roles within the family, thereby freeing up women’s time for other activities, as well as to facilitate women’s participation in village meetings and public events, however, it needs improvement to also increase women participation in economic activities. To this effect, FNML will support LWU in building capacities to implement the Gender Action Learning System (GALS), a participatory approach aiming at ensuring women and poor inclusion in value chains that was developed by Oxfam-NOVIB in Asia, Latin America and Africa, also with IFAD support (or a

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<sup>51</sup> This approach is based on household level assessment of gender roles within the family and on promoting women roles as mothers, producers and citizens.

general PLA approach). The approach analyses and addresses poverty and gender constraints affecting not only people themselves, but also the flow of quality goods, transparency of markets and relationships. GALS changes private sector attitudes and behaviour for sustainable and equitable 'win-win' strategies. GALS will be tried out in a limited number of villages with support from a consultant conversant with the methodology. Learning from the GALS pilot will be used to include GALS as the main approach to build social inclusion and ensuring that participation, programme activities and decision-making are more equally distributed across social levels and across gender.

20. **Village programming.** To strengthen community capacity to determine its own climate adapted future, the SACCC, using vulnerability risk assessment and participatory scenario development tools will train identified vulnerable communities to: (i) assess their own needs, using community-based vulnerability risk assessment and participatory scenario development tools; (ii) discuss these needs with local kum ban and district authorities; (iii) provide implementation support for the construction of small public infrastructure investments and the operation and maintenance of such investments including the establishment of user groups; and (iv) the monitoring of outputs and outcomes at the community level. Communities will achieve this by developing an understanding of: long term aspirations; vulnerable groups; vulnerability to CC; economic opportunities; local institutions; power dynamics; and gender tensions, relations and norms. Villages will then formulate village level, community-based adaptation plans, that will be reviewed/approved by DSEDCCs for inclusion in annual district development plans

21. **Inclusive farmers' groups.** Measures will be taken to ensure that farmers' groups, both learning groups and producers' groups, are inclusive, i.e. that they include women and members of poorer households in their membership as well as in their decision-making structures. This process will be overseen by kum ban facilitators trained in participatory community development. Measures could include: (i) having different groups for different ethnic minorities in a community, which experience shows is more effective in communities formed by clustered villages; (ii) promoting women groups; (iii) setting quotas for women/specific groups participation in governance structures; (iv) promoting village Community Development Officers and extension teams that include women and ethnic language speakers. As producers' groups will develop, annual capacity assessments and development plans will be the key instrument used to programme capacity building activities. These should take into account specific challenges and constraints faced by women and by poorer smallholders and contribute to making participating farmer groups more inclusive and gender-balanced organisations that respond to members' requirements. This set of activities will be the responsibility of PRCO extensionists, under the responsibility of the PRCO agronomist and with support from the short-term Farmers' Groups and Extension Specialist. There is also a possibility of integrating a 'CARE International' initiative in Dakcheung, targeting women involved in income generation nutrition and improved leadership qualities as a means of testing incentive schemes for farmer groups.

22. **Implementation arrangements and capacity building.** The Programme Coordinator will bear overall responsibility for the implementation of the Targeting and Gender Action Plan. Specific related implementation responsibilities will be reflected in detailed job descriptions of programme staff, and the recruitment process will secure to the largest extent possible gender and ethnic balance. Terms of reference for service providers will require gender-balanced teams with prior experience of gender mainstreaming and ethnic-balanced approaches, and that contract deliverables reflect gender and inclusion target and indicators. Capacity development tools (training, coaching, radio programmes, and printed materials) should be developed in visual format and languages of the ethnic groups and take into consideration cultural differences as well as the constraints of a largely illiterate audience. Trainings should take place in the villages and not in the district capital.

23. **Knowledge management and institutional support.** FNML M&E and KM Officers will ensure that the M&E/KM system allows the monitoring of inclusion and gender equity aspects, and those achievements and lessons learnt are made available to multi-stakeholders platforms and programme implementers to support regular analysis, improved performance and annual programming of related

activities. The SACCC will build the capacity of NAFRI AFPRC to collate, analyse, package into knowledge products and disseminate climate change adaptation knowledge in Lao PDR. The SACCC will establish a knowledge exchange platform through a participatory process under the joint auspices of the Environment Sector Working Group and the Agriculture and Rural Development Sector Working Group.

## 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:

- **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 process.
- **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 and livestock varieties with market potential. There is a need to balance diversification of activities against consolidation and 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.
- **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 Partnership 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 Soum Seun Soun Jai programme aims to improve access to markets but it is still in an early stage (start-up workshop in March 2012). All projects have activities to facilitate access to credit.

2. The rating in May 2012 in terms of the contribution to the RB-COSOP results management framework was assessed as 4, or moderately satisfactory, in all four subject areas: (i) increased incomes; (ii) improved food security; (iii) empowerment; and (iv) aid effectiveness agenda.

3. The **lessons learnt** that are most relevant to the design of the SACCC come from IFAD financed projects including the on-going the Sustainable Natural Resources and Productivity Enhancement Project (SNRMPEP co-financed by ADB) and the recently completed Rural Livelihoods Improvement Programme in Attapeu Province (RLIP) and from other projects working in the same or similar geographical areas (AFD, Oxfam, Care, SNV and Helvetas). SNRMPEP works in 5 provinces in the South including the three target provinces of the FNML and RLIP covered Attapeu province which is one of the new programme target provinces. AFD is supporting coffee producers in Champasak province; Oxfam has been working on food security, Care's support is on food security and health services while SNV and Helvetas have been supporting linkages between rice producers and millers. Lessons can also be derived from ongoing CC related project including the CIRAD/AFD led programme on community led solutions to agriculture, the World Bank Upland Food Security Improvement Project, the Northern Uplands Project, Oxfam's interventions on community based natural resource management and disaster risk reduction, the UNDP-supported IRAS and LDCF2 projects and the UNCDF LoCAL project. The main lessons we can draw from supervision reports and other reviews are summarized as follows: Analysis and consultations with stakeholders carried out for the preparation of the current COSOP identified lessons drawn from the implementation of the previous COSOP (2006-2010). Relevant lessons for SACCC 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 activities complementarities;
- Continued capacity building and knowledge management is crucial for all stakeholders, including technical agencies, extension agents and beneficiary households. Trainings should

be provided in the languages of the target ethnic groups. They should take cultural differences into consideration, and should take place in the villages 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 SACCC 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 (programmes) 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 *kumban* levels;

4. Furthermore, the SACCC 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 including the UNDP implemented LDCF, IRAS projects, the World Bank (WB) PRF and SUFFORD projects

- Set up pilot projects 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;
- Build Forums for exchanging and interpreting climate change risk information based on current climate variability and future climate change projections among key stakeholders at national, provincial and community levels;
- Ensure the coherence of Programme activities with regular planning and investment processes at district and provincial levels;
- Non-Timber Forest Products (NTFPs) have proven to be key for the rural poor as food and as cash-income source. PLUP and domestication of NTFPs (i.e. cardamom) are an effective way to ensure their preservation.
- 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 impacts;
- Linking agriculture, natural resources management and nutrition (LANN) has proven to be a successful multi-sectoral approach in improving malnutrition. The EU has supported the LANN approach through several NGOs (Care, CCL, Helvetas and others).
- There are opportunities to increase the technical quality of infrastructure and strengthen supervision, including resilience and disaster risk aspects;
- Procurement procedures should be adapted more to community needs and capabilities.
- 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.

## Appendix 4: Detailed Component description

1. The SACCC will have two main Outcomes; (i) Enabling environment for climate change adaptation strengthened; and (ii) Community-based Adaptation Investment Plans sustainably implemented. These Outcomes are closely interlinked and phased across the project life. Outcome 1 activities focus on building capacity within the participating institutions for inclusive, scalable, CC adaptation amongst the most climate vulnerable communities in Lao PDR. Outcome 2 activities focus on household and community-based investments for CC adaptation, including their operation and maintenance.

### Outcome 1. Enabling environment for climate change adaptation strengthened

2. The objective of this Outcome will be: a scalable agriculture sector climate change adaptation management framework operating with participating institutions, districts and communities. This Outcome will have four Outputs: (i) Participating technical ministries and districts are climate informed; (ii) Participatory LAIPs prepared; (iii) GIS based planning piloted; and (iv) Climate change adaptation knowledge enhanced.

3. **Output 1.1. Participating technical ministries and districts are climate informed.** The Policy Think Tank under the National Agriculture and Forestry Research Institute (NAFRI), and Forestry Policy Research Centre (AFPRC) will conduct an initial round of seminars at national and provincial levels to inform MAF management and staff of the current and projected impact of climate change on agriculture and forestry in Laos and on means to redress that impact through adaptive measures.

4. Training activities will be divided into two types: (i) general and (ii) technical training. General training is aimed at developing the general and common understanding of climate change issues and the use of climate risk, vulnerability and adaptation assessments tools in developing climate change adaptation policies, plans and programs for rural infrastructure development. The technical training is aimed at developing the technical skills of government staff to develop tools in analysing the result of climate impact, vulnerability and adaptation assessment in order to make informed decisions for adaptation recommendations and measures for planning, monitoring and implementation of propose climate adaptation investments. The general and technical training will be implemented at both the national and local levels. At the local level the training will be conducted in provinces or districts selected for the demonstration projects. The technical and in-depth technical training will be conducted only for target group at the national level.

5. A five day training at each level will focus on, *inter alia*: (i) procedures for climate vulnerability assessment; (ii) participatory scenario development; (iii) an introduction to GIS-based landscape analysis; (iv) building and enhancing adaptive capacity of vulnerable communities; (i) integrated climate adaptation technologies; (vii) environmental protection through better management practices of ecosystem underpinning water supply and protecting infrastructure (water and climate regulation, sediment retention, provision of habitat for biodiversity, etc. to improve land cover, enhance infiltration, reduce soil erosion, improve productivity, etc.); (viii) gender equality and social inclusion; (ix) empowering vulnerable communities; and (ix) group establishment and dynamics. At district level, participants will include DAFO, DoNRE and DPI staff. At district level the training will be directed to District Development Support Committees and District Development Support Teams (see para. 34 below). Specific CC adaptation and associated GESI capacities in the MAF Department of Agricultural Land Management (DoALAM), Department of Agricultural Extension and Cooperatives (DoAEC), Department of Livestock and Fisheries (DoLF), Department of Forestry (DoF) and Department of Irrigation (DoI) will be strengthened. The FNML-SACCC CC Advisor will seek the support of the LDCF2 Climate Change Technical Team (CCTT) in preparing the FNML CC vulnerability assessment and cc adaptation training programme. Specific training targets and mechanisms are detailed in Table 1 below.

**Table 1. Target groups and types of Capacity Building Activities**

Target Group	Target Group Needs	Possible Training Activities
Senior MAF decision makers and planners at central government and provincial levels  Programme Coordinator, Climate change officer	General awareness of CC issues, policy and program options, best practices, tools for decision making	Study tours and participation in regional forum, policy briefs on specific topics, national forum, vocational training on the application tools for decision making  Training on CC specific issues, management support in coordinating climate change activities with local governments and sectors and assist in the preparation of training, workshops and development of public awareness materials, training on technical assessment of the climate change impacts, basic knowledge on how to interpret results of the analysis and link to project implementation
Local government and RPSC	Awareness of CC issues, existing situation of projects and infrastructure and vulnerability in their sector, policy and program options, funding procedures, climate change project development etc.	General training and technical training, support on policy and planning, support on pilot project development and assist in the implementation of national workshops for the consultation of cc policy and programs with stakeholders
FNML technical team (CC advisor, agronomist, etc.), NAFRI scientists, etc.	More in-depth knowledge on vegetative and biological measures for soil stabilization, rural infrastructure, existing situation and In-depth technical training on how to evaluate existing (Baseline conditions) through vulnerability assessment and knowledge of climate change, can use and analyses climate change data, understand impact and vulnerability and apply technical data for adaptation planning and practical skills on analysis and interpretation of vulnerability results, how to apply to sectors and regions / provinces in Laos.	In-depth technical training on how to evaluate existing (Baseline conditions) through PSD and CVA, knowledge of climate change, can use and analyses climate change data, understand impact and vulnerability and apply technical data for adaptation planning and implement the SACCC. This will require technical courses and regional experiential learning.
Provincial and district local staff, kum ban facilitators and LWF staff.	Awareness of CC issues and vulnerability in sectors and provinces, how to design and implement pilot projects, how to support community based PSD and CVA, and how to adapt provincial programs for CC resilience	General training and awareness, general understanding of vulnerability results and how to apply them in selected provinces and producing policy briefs suitable to the local context (e.g. based on lesson learnt from pilots), and support participation in national workshop



Target Group	Target Group Needs	Possible Training Activities
Beneficiaries	General understanding of CC risks, simple and practical steps to deal with CC risk and associated planning tools at community / farm level	General awareness/training in selected locations and sectors through pilot projects and through public media and campaign

6. Building off the national MoNRE composite index for village level vulnerability and adaptive capacity, trained district and provincial officials will, with technical support, be thereafter engaged in an action based learning process of assessing/updating climate change vulnerability and adaptive capacity at district and kum ban levels in their provinces. Vulnerability will be assessed on the basis of (i) the extent to which systems (human and social, physical and financial, and natural / environmental) are exposed to climate change; (ii) the extent to which systems are sensitive to this exposure; and (iii) the capacity of systems to adapt to exposure and sensitivity . Systems are understood as providing a 'gateway' to those services that enable households and communities to adapt to the impacts of climate change. The determination of kum ban vulnerability will be assisted on a pilot basis by the development of an appropriate GIS database (see Output 1.3).

#### **Output 1.2. Participatory Local Adaptation Investment Plans prepared.**

7. This output will, as a component of the FNML district plan, implement participatory, community-based climate resilient planning, focused on sustainable investments in small scale rural water infrastructure, ecosystem management and renewable energy technologies in CC vulnerable kum bans and villages.

8. Prime Minister's Decree 135/PM 2002 requires local development planning to be undertaken at provincial, district and kum ban (village cluster) levels on a medium- and short term basis, guided by District Socio-Economic Development Coordination Committee (DSEDCCs) for inclusion in annual investment plans. The DSEDCC brings together all key agencies to facilitate local planning, budgeting and budget implementation. They play a central role in this process, identifying community needs and integrating their findings in annual and five year action plans. The work of the DDSPPs is facilitated by District Development Support Teams (DDST). The SACCC will reinforce the capacity of DSEDCCs to ensure that climate, environmental and social risks are properly considered when identifying and evaluating infrastructure projects for implementation.

9. Building off the FNML PLUP process, using community level vulnerability and adaptation planning tools, the SACCC will assist vulnerable communities to identify and implement LAIPs.

10. To strengthen community capacity to determine its own climate-adapted future, the SACCC, will train identified vulnerable communities to: (i) assess their own CC adaptation needs,; (ii) assess seasonal and gender specific changes in labour demand as a result of desired investments; and (iii) prepare LAIPs, for integration into the FNML district plans. Communities will be empowered to discuss these needs with local kum ban and district authorities and to (i) provide implementation support for the construction of small public/community infrastructure; (ii) take responsibility for the operation and maintenance of such investments including the establishment of user groups and an appropriate user fee structure; and (iii) monitor outputs and outcomes at the community level. Communities will achieve this by developing an understanding of: long term aspirations; vulnerable groups; vulnerability to CC; economic opportunities; local institutions; power dynamics; and gender tensions and relations and norms. Villages will then formulate village level, community-based adaptation plans, that will feed into the FNML district plan for inclusion in annual district development plans. Copies of LAIPs, which are a component of the FNML district plan, will be kept at community, kum ban, district and FNML levels. At community level they will need to be accompanied by more pictorial descriptions give the frequently low levels of literacy and Laotian language skills in upland villages, particularly amongst women.

11. Under the SACCC, LAIP planning at community level will build off the FNML PLUP process and be enhanced by the application of processes for planning beyond current vulnerability, including PSD and VRA. Based on plausible descriptions of how the future might develop, using current information and assumptions about future trends, PSD methodologies provide a mechanism for communities to learn about and explore future development choices and pathways and the impacts of CC and adaptation options within their specific context, to inform investment choices needed to facilitate effective adaptation.

12. As with GIS based landscape analysis (Output 1.3), PSD/VRA will be initially piloted in two Programme districts in 2015, before being implemented across the programme area. At least one of those districts will include the GIS pilot programme. Under Output 1.4, the NAFRI will identify and collate available historical meteorological information and forecasts available for the districts where the PSD/VRA process is planned. NAFRI, with the support of the PAFO and DAFO will also gather information to help frame what measures are feasible in the short and long-term, and what the capacity gaps are with regard to development and adaptation needs. Key knowledge/factors shaping local development could include economic sectors, population changes and migration, access to basic services, poverty levels, and available infrastructure. In a workshop setting over two days, the Programme will bring together NAFRI, meteorological service staff, local government and technical services and local stakeholders to exchange and discuss climate information from local and scientific sources and generate an integrated analysis of the available knowledge.

13. Participants will interpret the climatic information into three probabilistic hazard scenarios, assessing risks posed by the hazards and develop impact scenarios. Only internally consistent combinations, i.e., those where developments in one factor do not contradict developments in another, will be considered. Participants will then discuss the local implications of the impact scenarios, considering their potential to determine CC impacts on the attainment of local visions concerning food security, natural resource management and livelihoods. This will lead to the identification of short- and long-term actions to be integrated into the LAIP, which will also identify the respective implementation responsibilities of the local government, service providers and the community.

14. The PSD process will involve all relevant stakeholders, women and men of different age, livelihood, ethnic or other groups, recognizing their roles and utilizing their specific knowledge and capacities and will recognize, respect and build on both local and scientific climate knowledge. The PSD workshop will encourage open discussion, employing a range of participatory workshop methods to the engagement of all participants. The process will ensure that language and literacy are not a barrier to effective communication.

15. Traditional knowledge is the basis for local-level decision-making in many rural communities. In evaluating LAIP opportunities, the SACCC will seek the contribution of ethnic peoples' knowledge to climate change adaptation, which, in detecting, forecasting and adapting to change, can play an important role in minimizing the impact of climate change and natural disasters to local people. In so doing, the SACCC will target women, who are particularly known to possess traditional knowledge which helps to maintain household food security, notably in times of drought and famine traditional knowledge has value not only for the culture in which it evolves, but also for scientists and planners striving to improve conditions in rural localities. In this respect, the SACCC will include the use of participatory action research to further test traditional practices identified through the participatory community-based Participatory Scenario Development (PSD) and Vulnerability and Risk Assessment (VRA) processes. The PAR processes, will on the one hand monitor, evaluate and promote appropriate endogenous adaptation responses being practiced by smallholder farmers, and on the other hand, test and promote resilience building measures identified by communities and sub-sector experts.

16. Women's inclusion in community planning in Lao PDR is a particular constraint. Where the CC vulnerability and adaptation planning process cannot secure equitable representation for women in village-level planning meetings, it will, with the assistance of the Lao Women's Union, establish a parallel planning process for women in the community. Recognising that this is a widespread issue amongst the ethnic populations that form the majority of villages in the Programme area, and

especially in more CC vulnerable areas, the FNML/SACCC will also promote the “household methodologies” approach (currently being explored by the FNML together with the “3 Good Model”) to improve women’s empowerment within their home environment and, through that, within the community. In addition to promoting the “household approach” to women’s empowerment, the FNML/SACCC will draw on recent positive experience with the PRF II project on increasing women’s participation and influence in community-based participatory planning. Such measures include equal gender representation on the PRF village committee, both separate and joint meetings of men and women in the decision making process with a quorum of 40% of village women for women’s meetings, 60% of approved activities must be a priority for women, and a weighted voting system that strengthens the voice of poor households.

17. Following the community-based PSD/VRA process, the SACCC will support DDSTs to further evaluate community identified investments with a view to catching the location specific particularities of the proposed investment, integrating infrastructure with complementary ecosystem management solutions and ensuring gender-equal access to programme resources that address the vulnerabilities and adaptation needs of all ethnic groups. Based on the this analysis the underlying causes of problems, as identified in the planning process by communities, can be analysed and appropriate adaptation investment and natural resource protection and management measures can be designed. Facilitators, covering a cluster of 2-4 kum bans will be employed to facilitate this process.

18. Output 1.3. GIS based planning piloted. This output will strengthen MAF and NAFRI GIS-based capacity to support climate vulnerability assessment at provincial, district and kum ban levels and to pilot a sub-watershed/landscape based approach to community-based adaptation investment planning. To allow for a more integrated approach at the district level, the SACCC will pilot a sub-watershed or landscape approach, initially in one district in PY1-2, using GIS-based mapping, which can further inform the kum ban/district climate change adaptation investment planning process on upstream and downstream linkages between villages, kum bans and districts. Further to the piloting of GIS-based mapping, the SACCC will support the establishment of a GIS-based data management system within the MAF and NAFRI and, following a successful district pilot, at Provincial Agriculture and Forestry Office (PAFO) levels, which will be aligned/integrated with existing systems in the country, to support planning and monitor of impacts.

19. Piloting integrated landscape level planning supported with GIS and other geospatial tools will contribute to LAIP preparation. The adoption of geo-spatial planning tools will enable not only to locate standard features such as roads, villages, towns, markets, natural resources, and flood, drought and landslide prone areas, but also, to geo-reference vulnerable households, villages, and kum bans. Use of these tools will help transcend the village/kum ban boundaries and to gain a sub-watershed or landscape level view. While the potential uses of these tools are many, the SACCC will, initially, focus on hydrology and soil nutrient cycling at sub-watershed level, as they constitute the main constraints to agricultural productivity in southern Laos. A gradual progression into more sophisticated areas of analysis will be possible once the necessary capacities and skills are built.

20. The primary task of the PAFO GIS units will be to populate the GIS database with the necessary datasets and to inform the formulation of kum ban and district development plans by aligning and harmonising the individual LAIPs to generate synergies and to reconcile potential contradictions. This will be done in partnership with communities through the introduction of the concepts of natural resource management at the sub-watershed level assisted with the use of a portable GIS kit (laptop, projector, battery pack and GPS) during the LAIP development process. It is anticipated that the introduction of spatial planning will allow for elimination of the obvious contradictions and for generating better overall CC adaptation responses.

21. At district level, data in all fields is fragmented amongst different agencies and projects, hampering integrated understanding and analysis in the light of climate change. Initially in one pilot district, the SACCC will assist the DDST to integrate data gathered for Programme purposes (re-analysed data, community PSD/VRA data) into a GIS based databank. In line with the LCDF, it is recommended to use the “Quantum GIS tool” ([www.qgis.org](http://www.qgis.org)) since this tool, introduced by a GIZ Land Management and Rural Economic Development project (LM-RED), has been adopted by the Ministry of Planning (MPI) to support. The PAFO GIS unit will then support the DDST to assess the LAIPs from

both a thematic and sub-watershed perspective. At the district level the priorities of the communities will not be changed, however, design enhancements may be proposed for building ecological resilience at the sub-watershed level. The district level review will also facilitate the identification of additional areas for action that build sub-watershed level resilience. These additional interventions will help define national and external investments for meeting unfinanced needs.

22. The SACCC will engage a national GIS-based integrated land use planning specialist to expand the adoption/use of the climate change adaptation information planning tools and databanks developed under the LCDF project at the Provincial Office of Natural Resources and Environment (PONREs) in Xekong and Salavanh. This will include extending the development/use of this technology to the GIS teams in the PAFOs in the three FNML provinces and the Attapeu PONRE.

23. At NAFRI, the SACCC will build on the work initiated under the UNDP managed Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS) project including (i) GIS-based scenario development for climate change in Lao PDR and on the IRAS outcome; and (ii) a GIS-based Knowledge Platform on CC impacts in Lao PDR on agricultural production, food security and vulnerability, and local coping mechanisms.

24. Equipment and software to support the GIS pilot programme will include, *inter alia*,: GPS devices, digitizers, desktop computers with large screen monitors, laptops, tablets, portable hard drive storage, scanners, computer projectors, large size colour printers, computer and printing software and materials, ArcGIS and ArcGIS For Server software, the Quantum GIS tool, and Microsoft SQL Servers.

25. The ToRs for the input of an international GIS specialist are detailed in Appendix 4, Annex 1

26. Output 1.4. Climate change adaptation knowledge enhanced. This output will build the capacity of NAFRI AFPRC to collate, analyse, package into knowledge products and disseminate climate change adaptation knowledge in Lao PDR. NAFRI was established in 1999 under Laos' Ministry of Agriculture and Forestry, NAFRI is mandated to undertake research for development (applied research) on rice and other cash crops, livestock, fisheries, forestry, agricultural land, and related topics, and to provide information services. NAFRI is involved in several donor/lender-supported research projects on climate change adaptation, including: (i) Developing multi-scale climate change adaptation strategies for farming communities in Cambodia, Laos, Bangladesh and India (with several partners), which aims to help policy-makers deliver more effective climate adaptation programmes relevant to farmer livelihoods and food security; and (ii) Improving the resilience of the agriculture sector in Lao PDR to climate change impacts, a UNDP/GEF funded follow-up to the Laos' National Adaptation Programme of Action (NAPA), the objective of which is to minimize food insecurity resulting from climate change in Lao PDR and reduce vulnerability of farmers to extreme flooding and drought events.

27. The SACCC will establish a knowledge exchange platform working under the joint auspices of the Environment Sector Working Group and the Agriculture and Rural Development Sector Working Group. This process will provide a practical avenue for collaboration and learning, thus directly contributing to more effective coordination, coherent messaging and implementation of government policies on climate change adaptation. Good practices will be identified and scaled up within the FNML and other programs. This will include developing linguistically and culturally appropriate learning approaches that take into account low literacy rates of ethnic people, especially women. This information will be accessible through a NAFRI hosted database linked to and supported by the World Overview of Conservation Approaches and Technologies (WOCAT).

28. WOCAT is an established global network of Soil and Water Conservation (SWC) specialists based in over 50 research institutions around the world, including in East and Southeast Asia, dedicated to sustainable land management (SLM). . The overall goal of the WOCAT Network is to unite the efforts in knowledge management and decision support for up-scaling SLM among all stakeholders (<https://www.wocat.net>).

29. Through the Knowledge Exchange Platform, gaps in agriculture and adaptation knowledge will be identified for further testing of approaches and technologies and for financing through the

Adaptation Innovation Fund (see Activity 2.1.3). An effective M&E and information management system, based on initial IRAS experience, will be elaborated for assessing these on-farm trials and for disseminating best practice.

30. Knowledge sharing is a continuous process and an integral part of the programme management work. The SACCC will implement a dynamic programme of information sharing including (i) close collaboration with the Environment Sector Working Group, the Agriculture and Rural Development Sector Working Group and other development partners. (ii) intra- and inter-district study tours, discussion and workshops for project and line ministry staff at national and district level to evaluate and discuss and promote CC initiatives; (iii) different forms and formats for dissemination of results including farmer-to-farmer extension, learning events (workshops, technical "fairs" & exhibitions, etc.), field visits and study tours for technical staff and decision-makers, and the costs for presentations of results at national and regional conferences and events. The FNML Programme Regional Coordination Office (PRCO) will prepare a series of reports that capture and manage the SACCC development. These will include:

- *Documenting lessons learnt, best practices and cases of success: The FNML M&E and KM officers, with NAFRI AFPRC and WOCAT support, would collect all available relevant information to document lessons learnt, best practices and cases of success for CC adaptation. It could be based on information collected from: participatory adaptive research, progress reports, meetings and interviews, monitoring and evaluation reports, output evidence provided by targeted groups, market and value chain entities and other involved parties. Specifically it will include: (i) scientific reports; (ii) case studies for local and national stakeholders on adaptation options in agriculture and natural resources management to raise awareness and build adaptive capacity; and (iii) how adaptation and resilience thinking could be better integrated into value-chain analysis and market-based agriculture under the FNML*
- *Developing and delivering a lessons learnt study: Based on the information collected along programme implementation, the FNML KM Officer, with NAFRI AFPRC and WOCAT support, would develop both a mid-term and an end of programme CC Adaptation Lessons Learnt Report, analysing the documented lessons learnt, best practices and cases related to adaptation methodologies and approaches for IFAD and other international stakeholders that could inform future project and programme design. It would be first submitted to IFAD and, once feedback has been incorporated, if any, the report would be shared widely, particularly through on-line platforms.*

## **Outcome 2. Community-based Adaptation Investment Plans sustainably implemented.**

31. The objective of this Outcome will be: climate informed and gender-sensitive natural resource management systems and structures established. The Outcome will have one Output: (i) Climate change adaptation fund disbursed.

32. Output 2.1. Climate change adaptation fund disbursed. The focus of this output will be on financing public good climate resilient adaptation infrastructure and community and household adaptation needs, identified through participatory, community-based needs assessment verified at kum ban and district level. Where practicable, Outcome 2 financing will be delivered through the DDF (see para. 12). The DDF facility in Lao PDR is conceived to be delivered in a variety of forms: Basic Block Grants (BBGs), Operational Expenditure Block Grant (OEBGs) and Social Protection Block Grants (SPBGs). In all of its forms, the DDF facility is intended to operate as a stimulus and foundation for inter-governmental fiscal transfers (IGFTs). The DDF modality aims to build and strengthen the capacity of village and district authorities for participatory planning, local budgeting/financing and programme and financial management. It aims to ensure effective, accountable and transparent public service delivery through participatory monitoring and evaluation in the governance system. Thus, DDF serves as a strategic capacity development tool, and is more than an investment tool for poverty reduction. In Salavanh and Xekong, the SACCC will build off the district development planning process supported by MoNRE and MoHA through the LDCF/GPAR, projects,

which have provided a climate smart focus to DDF financing. In Attapeu province, it will need to build climate smart DDF capacity within the SACCC districts.

Three Activities will be co-financed under Output 2.1:

33. Activity 2.1.1. Community-based small-scale water infrastructure investments operational. Poor infrastructure development in agricultural production, accessing markets and the supply of water for irrigation and domestic purposes collectively contribute to high poverty rates and the low development progress in Lao PDR. Only 17% of national rice production is derived from irrigated fields along the main streams. There is potential to increase the production of irrigated rice, especially through small-scale irrigation in uplands, which currently plays a minor role. This could include small scale stream and spring diversions and water holding ponds, irrigation canals and potable water supply. Recent experience in investment in small-scale irrigation, including many small schemes developed by local communities has been disappointing. These schemes, often constructed without government or donor support, using basic techniques and standards and with poor maintenance practices, have been found to be particularly vulnerable to climate impacts. Over the last 3-4 years many of these small irrigation schemes have not been in operation due to drought and damage caused by flood and storm impacts during typhoon Ketsana in 2009. This situation is aggravated by (i) the lack of local level water consumption assessments which might inform the introduction of appropriate adaptation measures; and (ii) the limited capacity of district planning officials and decision makers to identify areas that are vulnerable to climate hazard and to prioritise, design and 'budget for enhanced adaptation/resilience measures.

34. New and rehabilitated small-scale irrigation infrastructure investment schemes, supported by environmental protection through better management practices of ecosystem underpinning water supply and protecting infrastructure, will be identified and prioritized within the Participatory LAIPs developed under output 1.2, with engineering supervision provided by UN Habitat, and plans verified by capacitated kum ban officials and DSEDCCs. Where need is identified and not met through the FNML, safe potable water supply would also be funded, Labour intensive vegetative and biological measures will be used to protect irrigation structures from slope instability in hilly areas.

35. The participatory LAIPs will be integrated at the kum ban level through an inclusive process led by elected village representatives. Emphasis will be placed on the provision of community-level facilitation and the regular and rigorous monitoring and evaluation of community planning processes. Attention will be paid to strengthening villagers' participation in sub-project planning, implementation and monitoring with the support of SACCC kum ban facilitators. The LAIP planning process will facilitate selection of investments that are profitable, responsive to specific community needs and take into account local maintenance capacities. The SACCC will finance up to 75% of community infrastructure costs, with 25% in-kind beneficiary co-financing, to a maximum of LAK 80 million (USD 10,000) per village (including in-kind contribution). Where sub-water catchment/landscape approaches require higher levels of cross-village investment, community investment fund allocation could be increased by up to 100%. Up to 1,800 vulnerable households in up to 100 villages are expected to benefit from small scale irrigation development.

36. To ensure sound technical quality of SACCC investments the SACCC will (i) employ UN Habitat to oversee the design and construction of all infrastructure contracts; (ii) utilize appropriate sector standards to the extent these are available, with a clear focus on critical design elements which cannot be compromised; (iii) support harmonization of SACCC investment planning and budgeting with sector investment and maintenance planning at district and provincial, and in accordance with associated schedules; (iv) provide additional training to supporting private engineers and kum ban facilitators, as well as to relevant government staff, including district engineers; and (v) intensify monitoring and external evaluation of technical quality, efficiency, sustainability and outcomes.

37. A Small Grants Manual, developed as part of the FNML Programme Implementation Manual (PIM), will guide the implementation of this activity. Wherever possible, local labour, particularly youth, will be used for works construction, supported by vocational training when required. This activity will be informed by and be compliant with the Government National Water Resource Policy and Action Plan (2011 to 2015) and the National Strategy for Rural Water Supply and environmental health (2011-2015). Operation and Maintenance (O&M) will follow the current government practice

implemented under the FNML (trainings of various stakeholders, free of charge service for the first three months and payment of monthly fee (of about \$1) by villagers)<sup>52</sup>. As per Government's procedures a rapid environmental assessment will be conducted with the support of UN-Habitat before construction of each small-scale water infrastructure and a year after infrastructure's completion.

38. Activity 2.1.2. Community-based Forest Management Programs operational. Community involvement in managing forests and natural resources has been recognized and strongly encouraged by the Government of Lao PDR, and the Forest Strategy 2020 has specific strategies and programmes for its implementation, however, the overall legal framework, institutional support capacity and consultative process for community based forest management are weak. Historically, villages in Lao PDR have a system of traditional ownership of the land and forest resources within village boundaries. The State legally recognizes the customary user rights of villages based on their traditions within the village boundary. Village authorities have the right and duty to enact local rules that are tailored to specific traditions and customary use, and have the right and duty to regulate land use within the village boundary.

39. The SACCC will, initially in three pilot districts, assist interested villages having traditional village forest to plan and implement community-based forest management (CBFM) programmes, secure collective forest use rights for such areas, and to engage in agro-forestry reinforcement of forest areas for income generation. Where village forestry areas are co-joined at kum-ban level, the plan will be prepared at that level with the support of GIS-based landscape analysis. An assessment will be made of existing resources and situational analysis of development trends over the past few years. Designated village production and use zones of the forest will be separated into management blocks with homogenous characteristics. A simple participatory forest inventory will be used for resource assessment, in which villagers and local DAFO staff work together to identify the current tree species composition in the blocks, the distribution of stem diameters, and the condition of natural regeneration. A participatory planning exercise will facilitate decision making by villagers on local tree species that are most valuable to them. For each village production forest area, villagers will then decide on detailed purposes of management such as land protection for water management, forest reinforcement for NTFP production, firewood collection, bamboo forest, fisheries, etc. and targets and management objectives will be agreed by the entire population of the respective village or cluster area. Based on these objectives, CBFM committees will be assisted to prepare simple, equitable, gender sensitive rules for forest use and biodiversity protection and 3-year plans for forest utilization, including investment in the reinforcement of degraded forest through income generating agro-forestry/fishery/ecotourism measures.

40. Trained kum ban facilitators will coordinate community meetings to discuss regulations, laws, and decrees relating to the management of forest and land resources, to explain the importance of forest resources, to learn about existing forest and land conflicts, to talk about forest management issues including the impact of swidden agriculture, and to discuss the role of women in village development. Communities will elect forest management committees (or use existing Land Use Planning/Land Allocation committees) that will establish rules for forest economic use and biodiversity protection. The DAFO District Forest Unit be trained in using participatory approaches and would collect forest and land related information, measure permanent public land areas, survey village boundaries, classify forest land, create maps and, where not already existent, prepare necessary documents for community management.

41. Following the acceptance of the CBFM plan at District level, CBFM committees will be able to access SACCC co-financing for agro-forestry investment up to USD 9,000 in 2 annual tranches of up to USD 4,500. CBFM committees will be expected to contribute at least 25% of the investment cost through cash or in-kind payments. District Agriculture and Forestry Extension Officer (DAFEO) capacity to technically support CBFM will be strengthened. Up to 110 villages are expected to benefit

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<sup>52</sup> Detailed procedures are described in the Nampapa (Lao Water government agency) manual prepared with the support of UN-Habitat)

from CBFM, with up to 2,500 vulnerable households being supported in making agroforestry investments.

42. Activity 2.1.3. Climate change on-farm adaptation innovation fund disbursed. This activity will finance innovative smallholder farmer group climate change adaptation investments for improved food security and nutrition including, inter alia, fish production; forage development for stall fed livestock; soil improvement; time efficient and climate adapted farm equipment; RET; and participatory action research driven by beneficiary needs and identified knowledge gaps.

43. Shifts in agriculture production to address climate change can involve substantial costs, including delayed yields, which may constrain investment in improved resilience by vulnerable households. To support and accelerate this investment process, the SACCC will provide co-financing for climate change adaptation. Based on sub-project proposals (prepared with kum ban facilitator and DDST support) by vulnerable farmer groups identified through the LAIP planning process, the FNML will approve co-financing that will cover up to 75% of the costs of each investment, with a maximum co-financing amount of about LAK 72 million (USD 9,000) per village (including beneficiary contribution). Beneficiary co-financing will be through in-kind contributions. This activity will benefit up to 100 villages including at least 2,000 vulnerable households. Beneficiary co-financing will be through in-kind contributions. Beneficiaries will receive technical support from the FNML staff, including through farmer field schools (FFS) and be able to use up to 30% of the grant to purchase: (i) private technical support through performance-based contracts with trained lead farmers, village animal health workers, or civil society support organisations in the district; (ii) numeracy or literacy training through local education providers; or (iii) market services aligned with the FNML Institutional Support component. Such performance-based contracts, to be coordinated by the DSEDCC, will be between the beneficiary group and the service provider. All co-financed groups will receive training in basic farm financial management.

44. To be eligible for adaptation innovation co-financing, the members of a vulnerable farmer group, each of at least 8-10 households, must (i) be classified as vulnerable households; and (ii) and include at least 40% female members. All supported sub-projects must demonstrate sustainability beyond the initial SACCC assistance. In particular co-financing must be closely linked to reduced household vulnerability and improved resilience. The maximum co-financing will be up to LAK 32 million (USD 4,000) per group, including co-financing. Grant applications and the subsequent co-financed contracts, must clearly define each member's share of the grant.

45. The FNML-SACCC will contract the NAFRI AFPRC to implement a Participatory Action Research (PAR) programme in collaboration with smallholder groups identified through LAIP preparation. The NAFRI will monitor, evaluate and promote appropriate endogenous adaptation responses being practiced by smallholder farmers, as well as test and promote resilience building measures identified by communities and from the SACCC Knowledge Platform. As a component of PAR, the impact on labour and other inputs for men and women will be assessed to ensure that the burden on women is equitable. Training in PAR methodologies and practices will be provided for NAFRI scientists and to national and district level MAF and PAFO and DAFO staff. In partnership with donor working groups and international collaborators, the NAFRI AFPRC will also evaluate climate adaptation technologies and approaches that show potential for scaling up. This will include climate resilient adaptation innovations such as field testing drought and heat tolerant seed varieties, forage incorporation into farming, forestry and land stabilization systems, soil degradation and organic matter inclusion, portable biogas units, and farming and forestry models for building a knowledge base on viable livelihood activities.



## Appendix 5: Institutional aspects and implementation arrangements

### I. Background

1. **MAF.** The main role of the Ministry of Agriculture and Forestry is to manage the development of agriculture and forestry for food and nutrition security and for the production of commodities for processing industries<sup>53</sup>, 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. **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.

3. **Districts.** Districts are the planning and budgeting units for district level socio-economic plans and have a District Socio-Economic Development Coordination Committee that mirrors PSEDCC at district 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 part of the *kum ban*. Main constraints faced by DAFOs in relation to FNML 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 mainstreaming; (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. *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, 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. Similarly to DAFOs, they have limited staff, transport equipment and budget, and are also little conversant with participatory approaches. *District Departments of Health* (DOH) are in charge with nutrition as well as hygiene and clean water access. For the latter, *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 both the design of water fountains and the approaches used promote village-based 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.

4. **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 facilitate contract farming arrangements with agri-business companies. This form of organisation however merely offers a way to facilitate the channelling of

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<sup>53</sup> Prime Minister Decree 262 on the organisation and function of MAF, 28 June 2012.

inputs and technical assistance to farmers, and groups do usually not share common objectives nor provide any services to members. 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.

5. **FIF.** The Fund for Inclusive Finance is in the process of being established and is financed by UNCDF and other donors (UNDP, World Bank, GIZ, ADB) 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 (loans, savings, remittances, transfers), meeting beneficiaries' needs and requirements. The FIF focuses on the provision of technical assistance, training and capacity building to various actors of the microfinance sector, from MFIs to the Central Bank (for the supervision of MFIs). The FIF is also considering becoming a platform for innovations with regard to microfinance and rural finance instruments, and for the promotion of microfinance good practices. While the FIF has a national coverage, financing partners contributing to the FIF may target specific geographical areas or institutions. The capacity building role of the FIF will become more and more important following the new approach for microfinance decided by the Government of Lao PDR; i.e. authorizing foreign microfinance institutions to partner with local MFIs.

## II. Overall Organisation and Responsibilities

6. **Rationale.** FNML 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 takes stock of the implementation setting of RLIP, which effectively combines district implementation responsibilities with overall coordination and support provided by a Programme Regional Coordination Office, and complementary staff resources deployed at the local level. Finally a number of service providers, who belong to the UN system or are supported by UN agencies, have been pre-identified to assist in implementing specific set of activities using innovative approaches: (i) UN-HABITAT has proven experience in community-based participatory approaches that keep cost low, use disaster-resilient building techniques and develop community ownership; (ii) UNCDF is building up the capacity of financial institutions to adequately and efficiently respond to rural households, farmers, and entrepreneurs needs and requirements as well as improve the global rural finance and microfinance environment including support for the establishment of the DDF and the LoCAL programme; and (iii) PROCASUR, a NGO receiving IFAD financing (regional grants) is developing new instruments to promote knowledge management through farmer-to-farmer approaches. Against this background, main features of FNML implementation setting are as follows:

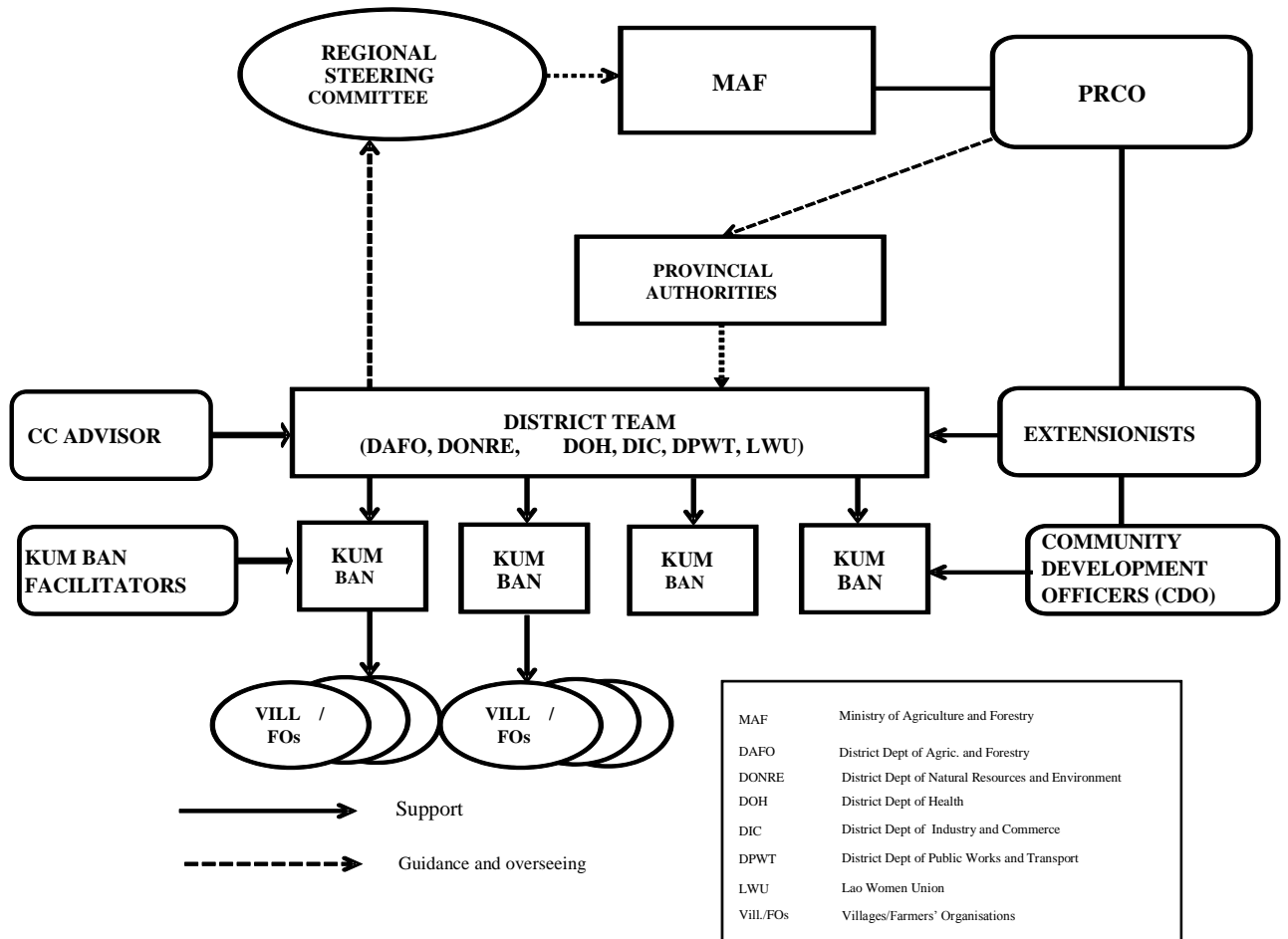
- The **Ministry of Agriculture and Forestry**, through its Department of Planning and International Cooperation (DoPIC), is the FNML lead agency that has overall responsibility for SACCC implementation, which it delegates to district administrations and to the Programme Regional Coordination Office based in Attapeu.
- **District Agriculture and Forestry Offices** will serve as a focal point for the planning and monitoring of FNML activities at district level. Under the FNML, each DAFO will assign the following existing staff: (i) a planning officer; (ii) a finance officer; and (iii) a treasurer to coordinate and consolidate planning and budgets for the preparation of AWPBs, to manage FNML accounts for expenditure carried out at district level, and to prepare quarterly, semester and annual progress reports and financial statements. AWPBs, semester and annual progress reports will be validated by the District Socio-Economic Development Coordination Committee. Line agencies at district level will participate in the implementation of SACCC activities under their respective responsibilities, through district teams that will gather staff from DAFO, DPI, DoIC, LWU, DOH, DPWT and others. District teams will also include FNML district-based staff (see below), who will provide technical support and assist in the implementation of activities. District teams will reflect gender balance, and a special effort will be made to select people who have command of ethnic languages.

- **DAFOs** will send validated district AWPBs and technical and financial reports to their respective Provincial Agriculture and Forestry Office. The PAFOs will review and consolidate them, prior to submitting them to the Provincial Socio-Economic Development Committee. The Committee will review and approve them, and send them to the PRCO.
- ***Kum ban Pattana*** Village Development Clusters will be the focal point for coordinating participatory village level climate adaptation development planning with a view to taking a more holistic landscape approach to climate adapted natural resource management by the scattered upland villages of Lao PDR.
- The **Programme Regional Coordination Office (PRCO)** will be based in Attapeu in the premises currently occupied by RLIP. It will assist MAF in carrying out FNML implementation responsibilities and will be fully accountable for the performance of SACCC implementation and the use of funds. More specifically, it will: (i) *provide overall guidance and technical support* to SACCC implementers, and build verifiable/measurable district capacities for SACCC implementation and coordination; (ii) *directly implement activities* encompassing more than one district (including activities to be executed by service providers, preparatory activities, technical assistance, business partnerships, financial instruments) as well as activities that will benefit from lower costs if procured together (including equipment or starter kits), in close connection with district teams; and (iii) *ensure overall coordination and programme management*. This will include the consolidation of AWPBs and reports covering activities implemented by districts as well as activities implemented directly by the PRCO, prior to their transmission to FNML Regional Steering Committee for review and approval. PRCO staff whose salaries will be financed by SACCC resources will be hired through renewable, performance-based contracts, based on detailed job descriptions presented in the FNML Implementation Manual. Current capacities in FNML will be fully utilized. The PRCO team will reflect gender balance and possibly command of some of the main ethnic languages in the target area. Short-term technical assistance will be hired to strengthen the capacities of PRCO and district teams in specific areas related to SACCC innovations, as well as in management areas.
- **UN-HABITAT** will be responsible for the implementation of activities relating to water management and associated ecosystems stabilization infrastructure, in close collaboration with DOHs and DPWTs. Services delivered in partnership with development partners are an exception to the procurement guidelines and will be indicated in the financing agreement.
- **A Programme Regional Steering Committee (RSC)** will be set up to provide overall guidance and oversight. The RSC will also approve annual AWPBs and annual progress and financial reports. It will include representatives from line ministries participating in FNML implementation (MAF, MIC, MOH, MPWT, and MOF), Governors and Vice-governors of three target provinces, LWU, partner banks, Lao Coffee National Association, Private Business Association, the Association of Coffee Producers' Groups, and other organizations and a balanced representation of farmers. The RSC will be headed by the Vice-minister, MAF and the Governor of Attapeu will be its vice-chairman. The Vice-chairman will also have the delegated powers from the Chairman to attend to any matters of urgency and provide support to the PRCO based in Attapeu. The RSC will conduct its meetings on a rotational basis between Attapeu, Salavanh and Xekong.

### III. Capacity Building

7. FNML implementation introduces a number of innovative approaches that will require the building of capacities of district and kum ban staff. This is particularly the case for demand-driven and participatory approaches, promotion of and support to producers' groups, sustainable agriculture intensification, nutrition, inclusive business partnerships and gender mainstreaming. The management of IFAD resources that will be channelled directly to districts, as well as the participation in FNML M&E/KM system will also call for specific skills that are related to IFAD procedures and requirements.

**ATTACHMENT 1: FNML ORGANIZATIONAL CHART WITH SACCC**



## Appendix 6: Planning, M&E and learning and knowledge management

### Monitoring and evaluation

1. The FNML has an integrated M&E/KM system with three main objectives:
  - *steering programme implementation* by providing programme stakeholders with the information and analysis required to: measure programme outputs and outcomes and assess: (i) programme effects on the livelihoods of participating farmers; ((ii) relevance of the programme strategy, methodologies and implementation processes; (iii) detect difficulties and successes; and (iv) support decision-making to improve programme performance;
  - *supporting economic decisions and policy-making* by providing value chain stakeholders with information and analysis to develop profitable activities and to adapt their strategies;
  - *sharing knowledge* by developing lessons learnt, capturing good practices and successful innovation and sharing knowledge under appropriate formats.
2. The FNML M&E/KM system is designed to be open and easily accessible, participatory, evolving as capacities develop, focused on analysis and learning, inclusive and to support accountability towards programme stakeholders. The M&E system is managed by the PRCO and is compatible with ProMIS<sup>54</sup> reporting requirements, which will be further developed to include: (i) reporting forms at the village and kum ban level (as ProMIS stops at district level); and (ii) output indicators disaggregated by poverty and ethnic groups (ProMIS provides information disaggregated by gender only). The FNML will also, with the assistance of a short-term M&E consultant, identifying quantitative and qualitative indicators on a participatory basis, building on the logical framework and on the set of IFAD's Results and Impact Management System (RIMS). A baseline study measuring the status of the main indicators (including RIMS indicators) has been completed and will be repeated at the end of the Programme. The FNML M&E/KM cycle started with the preparation of the first Programme AWPB, which covers detailed annual planning of activities and implementation responsibilities, physical results targeted, outputs expected, budget and procurement plan. Data is being collected *at*: (i) *village level*, related to farmers and their organisations, household nutrition and production/income evolution; (ii) *at value chain level*, on the achievements of business partnerships, financial instruments, value chain development and policy research; and (iii) *programme level* encompassing overall programme performance. Annual outcome surveys are carried out annually in line with the IFAD's RIMS Impact Survey Guidelines to measure changes at beneficiary level, compared to the baseline study. A MIS is being established to track financial and technical data on programme outputs and outcomes, lessons learnt and good practices in order to analyse programme performance, including information regarding price and export statistics. This information will be available, *inter alia*, through the [IFADAsia](#) website.
3. The FNML has held an inception workshop with programme stakeholders and implementing partners with a view to ensuring partner understanding of the Programme scope and implementing modalities, introduce key processes, tools, strategies and reporting needs and building relationships for future knowledge sharing. The programme is supervised by IFAD through annual supervision missions, supported initially by short follow-up missions six months later, including MAF and other stakeholders (ADB, UN-Habitat, etc.), working in close collaboration with target provinces, districts and programme clients. A joint mid-term review will be organised by government and IFAD after 42 months (mid-2017), in close collaboration with the above-mentioned agencies and stakeholders. A comprehensive IFAD supervision mission is planned for the first half of the fifth year to conduct a thorough review of achievements and make recommendations to ensure the sustainability of

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<sup>54</sup> ProMIS is the monitoring management system that has been developed and currently piloted by MAF with the intention of using this system as the standardized MIS for all ODA-funded programmes

programme achievements beyond programme completion. Impact surveys will be carried out at MTR and completion.

4. The SACCC M&E system will be fully integrated with that of the FNML. As the SACCC is primarily implemented within climate vulnerable communities, particular emphasis will be placed on community-based M&E. PSD and VRA tools, applied in highly vulnerable FNML kum bans/villages will generate baseline data and perceptions on localized CC impacts that will be integrated into the FNML M&E system together with information garnered from NAFRI-led participatory action research.

#### **Knowledge management.**

5. The FNML KM processes, as detailed in the Programme M&E Manual, is designed to systematically identify, analyse, document and share, Programme knowledge with a view to strengthening programme performance, supporting innovation dissemination, identifying issues to convey to policy makers and providing information to support up scaling. The KM system is designed to be flexible and responsive to changing circumstances. Good practices will be gathered through participatory methods. Information gathered through the M&E system on successful business models and on innovative techniques and village-based approaches promoted by the programme will be disseminated to programme stakeholders, so that they can strengthen their capacities and improve performance. Information will be disseminated through technical leaflets, radio programmes, video films and case studies. Local languages will be used and printed material will be adapted to a largely illiterate audience. FNML KM will, furthermore, help in identifying farmers' groups in the programme area that will host farmer-to-farmer extension activities. . These will be developed using the learning route methodology with support and training from IFAD-funded regional grant project PROCASUL Asia. The Programme will facilitate replication and dissemination beyond the programme area. The FNML M&E/KM Advisor will provide technical guidance in implementing the system.

6. Building off this FNML KM framework, the SACCC will establish a knowledge exchange platform under the joint auspices of the Environment Sector Working Group and the Agriculture and Rural Development Sector Working Group. This process will provide a practical avenue for collaboration and learning, thus directly contributing to more effective coordination, coherent messaging and implementation of government policies on climate change adaptation. Good practices will be identified and scaled up within the FNML and other programs. This will include developing linguistically and culturally appropriate learning approaches that take into account low literacy rates of ethnic people, especially women. This information will be accessible through a NAFRI hosted database linked to and supported by the World Overview of Conservation Approaches and Technologies (WOCAT).

7. WOCAT is an established global network of Soil and Water Conservation (SWC) specialists based in over 50 research institutions around the world, including in East and Southeast Asia dedicated to sustainable land management (SLM). . The overall goal of the WOCAT Network is to unite the efforts in knowledge management and decision support for up-scaling SLM among all stakeholders (<https://www.wocat.net>).

8. Through the knowledge exchange platform, gaps in agriculture and adaptation knowledge will be identified for further testing of approaches and technologies and for financing through the Adaptation Innovation Fund (see Activity 2.1.3). An effective M&E and information management system, based on initial IRAS experience, will be elaborated for assessing these on-farm trials and for disseminating best practice.

9. Knowledge sharing is a continuous process and an integral part of the programme management work. The SACCC will implement a dynamic programme of information sharing including (i) close collaboration with the Working Group, the Agriculture and Rural Development Sector Working Group and other development partners. (ii) intra- and inter-district study tours, discussion and workshops for project and line ministry staff at national and district level to evaluate and discuss and promote CC initiatives; (iii) different forms and formats for dissemination of results

including farmer-to-farmer extension, learning events (workshops, technical "fairs" & exhibitions, etc.), field visits and study tours for technical staff and decision-makers, and the costs for presentations of results at national and regional conferences and events. The FNML Programme Regional Coordination Office (PRCO) will prepare a series of reports that capture and manage the SACCC development experience. These will include:

- *Documenting lessons learnt, best practices and cases of success:* The FNML M&E and KM officers, with NAFRI AFPRC support, will collect all available relevant information to document lessons learnt, best practices and cases of success for CC adaptation. It could be based on information collected from: progress reports, meetings and interviews, monitoring and evaluation reports, outputs evidence provided by targeted groups, market and value chain entities and other involved parties. Specifically it will include: (i) case studies for local and national stakeholders on adaptation options in agriculture and natural resources management to raise awareness and build adaptive capacity; and (ii) how adaptation and resilience thinking could be better integrated into value-chain analysis and market-based agriculture under the FNML
- *Developing and delivering a lessons learnt study:* Based on the information collected along programme implementation, the FNML KM Officer will develop both a mid-term and an end of programme CC Adaptation Lessons Learnt Report, analysing the documented lessons learnt, best practices and cases related to adaptation methodologies and approaches for IFAD and other international stakeholders that could inform future project and programme design.. It will be first submitted to IFAD and, once feedback has been incorporated, if any, the report will be shared widely, particularly through on-line platforms.





## Appendix 7: Financial management and disbursement arrangements

1. The financial management of the programme will be governed by the Ministry of Finance (MOF) decree on the financial management rules applicable to Official Development Assistance grant funds,<sup>55</sup> and in line with IFAD guidelines on financial management.
2. The financial management system will be under the overall responsibility of the FNML Programme Coordinator and of the Financial Manager. In order to ensure a strong financial management system, the following requirements must be met:
  - ensure that funds are used only for the purpose intended under the Financing Agreement, in an efficient and economical way and in accordance with the activities described in the Programme Design Report and in the Annual Work Plans and Budgets (AWPBs);
  - enable the preparation of accurate and timely financial reports;
  - ensure that funds are properly managed and flow rapidly, adequately, regularly and predictably;
  - enable programme management to monitor the efficient implementation of FNML and;
  - safeguard the assets and resources procured using programme funds.
3. Furthermore: (i) the internal control system should ensure the conduct of an efficient and transparent payment and procurement process, and the proper recording and safeguarding of assets and resources; (ii) the programme accounting system should record programme requests for funding and meet reporting obligations to both the government and IFAD; (iii) the programme's financial statements and internal controls should be the subject of an independent annual audit.

### I. FLOW OF FUNDS

4. Funds for programme implementation will come largely from IFAD, including the ASAP, and will be used following IFAD approved methodologies of disbursement.
5. The role of MOF in running the Designated Account (DA) will involve: (i) verification and onward transmission of Withdrawal Applications (WA) to IFAD; and (ii) receipt of IFAD replenishments into the DA, conversion from USD to LAK and transmission of funds from the DA to the PRCO and districts' accounts in commercial banks. These activities will all be in response to instructions received from MAF who will be the programme's executing agency. The initial payment into the DA will be 10% of the total IFAD financing amount.
6. The Programme Regional Coordination Office (PRCO) will be responsible for ensuring that disbursement requests from the DAFOs, UN-Habitat, and itself are in order and that timely WAs are sent to IFAD (through MOF), with adequate supporting material. The PRCO, based in Attapeu, will be the facilitator and coordinator of FNML. It will also be a budget holder and will have a subaccount to fund its own operations.
7. As required on the basis of the level of activity envisaged in the approved AWPB of a particular district, each budget holder has set up an account within a commercial bank<sup>56</sup>, acceptable to IFAD, to receive programme funds supported by the AWPB to cover their first six month's activities. Statements of Expenditure (SOE) will be authorized for expenditures below USD 20,000.
8. **Accounts.** MOF has open and maintain an account in USD designated to receive IFAD resources in advance, called Designated Account (DA).
  - *funds to the Programme Regional Coordination Office (PRCO)* flow into an account opened by the Programme Coordinator. The PRCO have two programme accounts one in LAK and one in USD. The PRCO are in charge of programme activities on the ground that are not

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<sup>55</sup> Decree 2695/MOF dated November 1<sup>st</sup>, 2010.

<sup>56</sup> All subaccounts will be opened in the same commercial bank, so that the PRCO can have access to the bank statements of all district offices, in order to avoid delays in the preparation of the DA reconciliation at national level.

related to one single district (such as preparatory activities, technical assistance, training in financial literacy and credit brokerage for farmer groups and business partnerships), or those that benefit from lower costs if procured together (such as equipment or starter kits). The PIM contains the modalities whereby expenditure is engaged by the Programme Coordinator, including requirements for double signature beyond a certain ceiling;

- *funds to the district DAFOs flow* from the PRCO programme account to the respective district programme sub-accounts. This is the case for: (i) training activities to be implemented at district level; and (ii) DSA paid to district staff; and (iii) some procurement activities for small items and operating costs.
- *District Development Fund* Where practicable, SACCC Outcome 2 financing will be delivered through the DDF (see para. 13). The DDF facility in Lao PDR is conceived to be delivered in a variety of forms: Basic Block Grants (BBGs), Operational Expenditure Block Grant (OEBGs) and Social Protection Block Grants (SPBGs). In all of its forms, the DDF facility is intended to operate as a stimulus and foundation for inter-governmental fiscal transfers (IGFTs). The DDF modality aims to build and strengthen the capacity of village and district authorities for participatory planning, local budgeting/financing and programme and financial management. It aims to ensure effective, accountable and transparent public service delivery through participatory monitoring and evaluation in the governance system. Thus, DDF serves as a strategic capacity development tool, and is more than an investment tool for poverty reduction. In Salavanh and Xekong, the SACCC will build off the district development planning process supported by MoNRE and MoHA through the LDCF/GPAR, projects, which have provided a climate smart focus to DDF financing. In Attapeu province, it will need to build climate smart DDF capacity within the FNML districts.

9. **Replenishment.** The DA operates with an advance payment from IFAD (Authorised Allocation), the amount of which is determined by IFAD based on expected patterns of expenditure, withdrawal application processing timeframe, and requirements for financial efficiency. The DA is replenished following the rules set out in the IFAD Disbursement Handbook provided with the Letter to the Recipient.

10. In order to avoid difficulties in the replenishment of funds, the PRCO Financial Manager ensures that all expenditure made with programme funds are duly justified by proper documentation on a strict regular basis as per procedures to be developed in the Programme Implementation Manual (PIM).

11. **Disbursement.** At programme start and then on an annual basis, AWPBs are prepared by the PRCO. They cover: (i) expenditure planned by each DAFO, reviewed and consolidated by the relevant Provincial Forestry and Agriculture Offices (PAFO), and approved in each province by the Provincial Steering Committee; and (ii) expenditure planned by the PRCO. The consolidated AWPB specifies activities to be implemented by each district/by the PRCO. Districts request an advance of funds supported by the AWPB to cover their first six month's activities.

12. **Budget holders.** Budget holders include the PRCO, and target district administrations. To be acceptable as a budget holder under the programme, target districts need to demonstrate that they have adequate accounting staff and key members of that staff receive capacity building from the PRCO ( with support from the short-term Financial Management and Procurement Advisor), also with MOF participation. Capacity building is provided before the start of programme activities and periodically thereafter.

13. The DA has been established with 10% of the total IFAD's financing amount (approx. \$1.084 million).

14. Prior to the start of programme activities, each budget holder requested an advance of funds, supported by the AWPB to cover their first six months' activities. Statements of Expenditure (SOE) will be authorized for expenditures below USD 20 000.

15. Budget holding implementers procure goods, works or services and make advances available to programme supported staff where needed, based on planned work programmes. Promptly after completion of each activity, cash advances are reconciled by the recipient and submitted to the finance staff with proper supporting documents. The finance staff are responsible for

(i) recording all transactions into the programme accounts (using a cashbook system in Excel at district level in accounting software at PRCO level), (ii) reconciling the subaccount on a monthly basis and (iii) preparing monthly expenditure reports and replenishment requests. The financial information is consolidated at DAFO level in Excel for submission to the PAFO. The PAFO consolidates financial information for each province in Excel, and submits it to the PRCO for entry into the accounting software. Financial information related to transactions undertaken by the PRCO are entered directly into the accounting system by the PRCO finance staff. Finally, the PRCO accounting system issues consolidated financial statements and progress reports for the whole programme.

16. **UN-HABITAT.** Activities related to access to clean water are implemented by UN-HABITAT. Funds are channelled directly from IFAD to UN-HABITAT, which makes them available to its representation in Laos, based on the AWPB. WAs are cleared by the PRCO.

17. **Responsibilities.** Responsibilities for managing financial flows are as follows:

- **MOF:** (i) verification and transmission of WAs to IFAD; and (ii) receipt of IFAD replenishments into the DA, conversion from USD to LAK and transmission of funds from the DA to the PRCO account and districts' account. However, in the initial 2 years of programme implementation, the direct transmission of funds from the DA to the districts will not occur. After the two year period, and based on a satisfactory capacity assessment of district staff by PRCO, the transmission of funds from the DA to districts will be allowed;
- **PRCO:** (i) ensuring that disbursement requests from the districts and from UN-HABITAT are in order; (ii) preparing WAs reflecting district requests and PRCO disbursement needs in line with AWPBs; (iii) timely transmission of WAs to MOF, with adequate supporting material; the PRCO will act as a facilitator and coordinator; (iv) set up a simple system to monitor the release of funds from the DA to the various subaccounts, including amounts transferred and processing delays;
- **PAFO/PDPCs:** The Provincial Division of Planning and Coordination (PDPC) in the three target provinces is responsible for reviewing and approving replenishment requests, which are submitted by the DAFOs with the corresponding subaccount reconciliations and bank statements. These are forwarded to the PRCO who countersigns and requests the release of funds from the DA at MOF. The funds are then converted to LAK and go to the PRCO account, from where they are transferred to the DAFOs. By the third year of programme implementation, it is expected that the funds will flow directly from the DA to the DAFOs;
- **UN-HABITAT:** (i) preparing WAs reflecting annual disbursement needs in line with AWPBs and with adequate support material.
- **UNCDF:** (i) preparing procedures under which the FNML will intervene with grant financing (eligibility criteria and release modalities); and (ii) suggesting modalities of capacity building and technical assistance to be provided to the financial sector with priority given to group lending to farmers from selected villages and to the entrepreneurs linked to target beneficiaries by partnership arrangements.

## II. ACCOUNTING AND FINANCIAL REPORTING

18. **Accounting.** Programme accounting systems are consistent with international accounting standards and principles as well as with government requirements. Internal financial controls are regularly applied. MAF, through the PRCO, UN-HABITAT, and UNCDF is accountable to the government and financiers for the proper use of funds in line with legal agreements. The PIM includes the main operational methods, procedures and arrangements to be followed by the PRCO. It includes (not exhaustively): the chart of accounts; the codification of accounts by component, by cost centre, by location, by category and origin of funds; internal control measures to ensure a proper record keeping and effective balancing and checking of the accounts, including practical measures for bank reconciliation, and for the payment by bank transfer or petty cash; and physical safety and security measures.

19. Programme accounting takes place both at the district and at PRCO level and by DAFO and PRCO staff, respectively. The Excel-based accounting system currently used at district level has been improved by building in analytical features to analyse each programme transaction according to the corresponding expense category, component, AWPB activity, funding source and geographical

location. In addition, a simple electronic budget monitoring system is designed to allow for monitoring of AWPB financial execution at all levels.

20. A computerized financial/accounting system has been implemented at the PRCO level, so that the latter is able, in a reliable and timely fashion, to consolidate financial information, monitor the execution of the AWPB, prepare financial reports and financial statements for audit purposes, and carry out cash forecasting and management. The financial management system, in the form of an off-the-shelf accounting software package, contains a Chart of Accounts that codifies all transactions into both components and categories. This allows for automated reporting by each component and category in the Financing Agreement, as required by the Programme.

21. **Reporting obligations.** Reporting obligations as defined in the Financing Agreement are related to programme financial statements, independent audit reports and programme progress reports. The PRCO prepares quarterly financial reports as well as annual financial statements within three months of the end of each fiscal year. It is also responsible for organising an annual audit within six months of the end of each fiscal year. -The Programme uses an integrated accounting system that allows for the proper recording of programme financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds.

22. **Financial Reporting.** Programme financial reports are prepared by the PRCO. They include financial progress statements covering expenditure for the quarter and cumulative results for the year, as well as for the implementation period to the date of the end of the quarter. In summary financial reports to be submitted quarterly together with the progress reports cover:

- summarised actual expenditure by categories against the budget for the overall programme and by source of funds. Suitable explanations should be provided on main variances;
- summarised actual expenditure by components against the budget for the overall programme and by source of funds. Suitable explanations should be provided on main variances;
- report of actual expenditure for activities implemented against budgetary provisions;
- cash balance on Designated and Advance Accounts;
- status of funds, reconciled to IFAD records, including cumulative withdrawal applications.

23. Each district prepares monthly activity reports, expenditure reports and budget-to-actual reports. These reports are submitted to the PAFO on a timely basis. The submission of reports to the PAFO by districts continue even after funds are transferred directly from MOF to districts, expected by year 3 of the programme. Each PAFO draws up quarterly progress reports (including physical progress and financial execution of the AWPB) and annual financial statements in an agreed format, based on the submissions of the DAFOs. In order to ensure timely and accurate financial reporting - while at the same time providing on-the-job training to the local staff - the finance staff of the PRCO undertake regular visits (monthly, and then quarterly) to the PAFOs and DAFOs to conduct detailed reviews of their accounts and reports. The annual programme accounts and consolidated financial statements are subject to audit.

### III. AUDIT

24. Every fiscal year, programme accounts are audited in accordance with auditing standards acceptable to IFAD and with IFAD's Guidelines on Programme Audits. The audit capacity of the government audit agency is limited and it is deemed unlikely that it will be in a position to deliver timely professional audits. Audit therefore is undertaken by an independent auditor having internationally recognised qualifications. Several suitably qualified audit firms of this type are operating in Lao PDR. Selection of the auditor is undertaken by the PRCO through competitive bidding and submitted to IFAD's no objection. In order to prepare for the audit and to allow a thorough review of systems, the auditor is initially appointed at least three months before the first year-end, i.e. by 30<sup>th</sup> June 2012.

25. The auditor makes available to IFAD and the government an annual audit report on the financial statements, including a separate opinion on the use of the DA and of the SoE, within 6 months of the end of the financial year. Lack of reception by IFAD within 180 days from the original due date may triggers the suspension of further disbursements.

26. The audit is based on the financial statements consolidated by the PRCO. It covers the DA, DAFO accounts in the five target districts and the PRCO account. Auditors are required to visit the programme areas, review the procedures used, check transactions and review programme records and books of accounts to confirm that: (i) IFAD funds and government counterpart funds were used for eligible expenditures, with due consideration to economy and efficiency, and in accordance with the conditions stipulated in the Financing Agreement; (ii) goods, works and services were procured in accordance with the provisions of the Financing Agreement and government regulations; (iii) payments were made or due for goods, works and services that were provided after the date of signing the Financing Agreement or any date specified for retroactive financing and before the grant completion date; and (iv) all necessary supporting documentation, records and accounts have been kept in support of all programme transactions, including expenditures reported via SOEs and the DA; and (v) the DA was used in accordance with the provisions of the Financing Agreement.

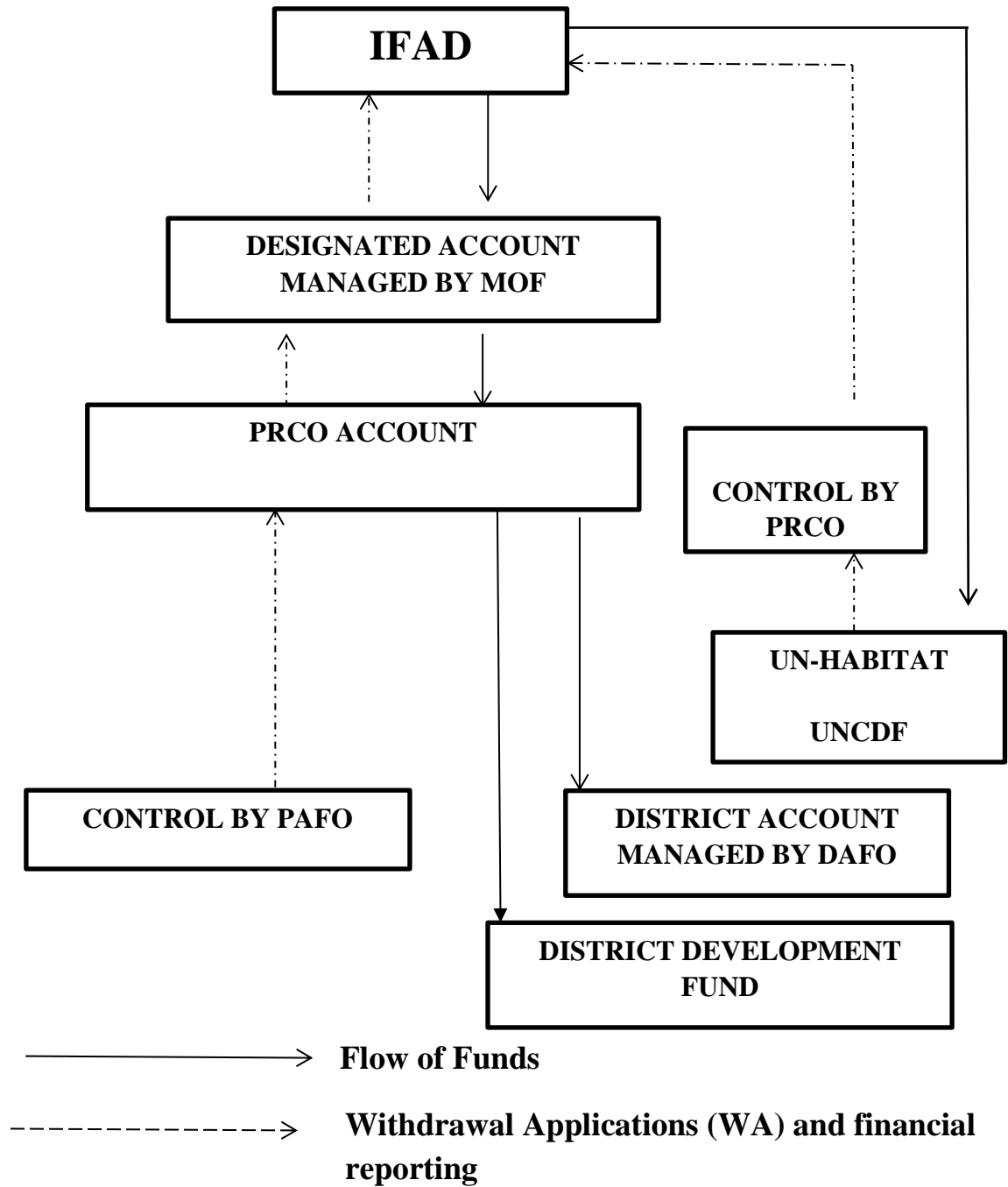
27. The auditor also prepares a Management Letter, addressing the adequacy of the accounting and internal control systems, including Management Reply and action plan and the details on the actions taken by the programme for all issues identified by previous audit reports. The PRCO triggers follow-up measures to abide by the audit recommendations. The programme coordinator submits the reply to the Management Letter to IFAD within one month of receipt thereof. If the auditor's recommendations are not complied with or are not satisfactory to IFAD, sanctions can be applied, including suspension of further disbursements.

28. The procurement method for the selection of auditors is the Quality and Cost-Based Selection (QCBS) method, using a 70:30 ratio for decision-making. As per the ratio, 70% of the evaluation of bidders is based on quality, with 30% of the evaluation based on cost. In case there are doubts regarding the quality of local auditors, the International QCBS method is utilized, thereby expanding the eligibility of firms present at regional level.

29. When undertaking procurement of auditors, the programme ensures that the procurement documentation include well defined criteria on minimum quality of auditors. These criteria include: the number, qualification, and experience of staff, demonstrated knowledge of ISA, and experience in auditing external funded projects.

30. With respect to the length of appointment of auditors, the duration of any appointment does not exceed four years with annual confirmation based on the assessment of the auditor's performance by IFAD CFS. Auditors can be re-appointed for a subsequent term provided that a competitive tendering exercise is performed.

**Attachment 1: FNML-SACCC Flow of Funds**



## Appendix 8: Procurement

1. The FNML will be responsible for procuring a range of SACCC goods, works and services as set out in the AWPBs. The procurement systems used will be guided by the Government's Procurement Manual<sup>57</sup> (2009), published by MOF with support from the World Bank financed Financial Management Capacity Building Project. The procurement guidelines set out in the Procurement Manual are clear and provide a sound basis for procurement under this programme.

2. The FNML is 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 is now taking place at regional level through the PRCO, which already has extensive experience in procurement with RLIP, it is expected that, starting in programme year 3, when the FNML will initiate procurement of SACCC climate change adaptation goods and services, that district staff will be sufficiently skilled for district procurement threshold to be increased to USD 3000. This increase in the 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 3000 will continue to be handled by the PRCO. The limited capacity issue 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, are 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). To be noted that the service providers will be hired through renewable performance-based contracts.

### GOODS AND SERVICES TO BE PROCURED

4. IFAD/ASAP will fund most goods, works and services under the SACCC. The table below breaks down procurement under the SACCC by type of expenditure (procurement account) and procurement method, showing the amounts to be funded by IFAD and ASAP in brackets.

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<sup>57</sup> 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 FNML SACCC, including contingencies (USD 000)**

Lao PDR ASAP FNML Final Design Procurement	Procurement Method (LAK Million)						Procurement Method (US\$ '000)					
	National		Consulting		Local		National		Consulting		Local	
	Competitive Bidding	QCBS	Services: Shopping	Other	N.B.F.	Total	Competitive Bidding	QCBS	Services: Shopping	Other	N.B.F.	Total
Civil works	15,840	-	-	9,600	-	25,440	1,980	-	-	1,200	-	3,180
Vehicles	1,830	-	-	-	-	1,830	229	-	-	-	-	229
Equipment	3,354	-	-	-	-	3,354	419	-	-	-	-	419
Agri Inputs	-	-	5,175	-	-	5,175	-	-	647	-	-	647
Matching Grant	9,600	-	27,880	-	-	37,480	1,200	-	3,485	-	-	4,685
Technical Assistance	-	20,168	-	-	3,974	24,143	-	2,521	-	-	497	3,018
Training & capacity building	7,200	23,303	8,305	-	-	38,808	900	2,913	1,038	-	-	4,851
Salary & Allowances	-	-	-	3,542	1,840	5,381	-	-	-	443	230	673
Other operating costs	-	-	9,248	-	-	9,248	-	-	1,156	-	-	1,156
<b>Total</b>	<b>37,823</b>	<b>43,472</b>	<b>50,608</b>	<b>13,142</b>	<b>5,814</b>	<b>150,859</b>	<b>4,728</b>	<b>5,434</b>	<b>6,326</b>	<b>1,643</b>	<b>727</b>	<b>18,857</b>

5. The annual breakdown of the total amounts spent under the different procurement accounts are projected as follows.

**Table-2: Annual Expenditure by SACCC Procurement Account, Including Contingencies**

Lao PDR ASAP FNML Final Design Procurement Accounts	Totals Including Contingencies (LAK Million)								Totals Including Contingencies (US\$ Million)							
	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
	Civil works	1,920	3,840	5,600	3,520	5,280	5,280	-	25,440	240	480	700	440	660	660	-
Vehicles	1,830	-	-	-	-	-	-	1,830	229	-	-	-	-	-	-	229
Equipment	771	-	2,510	73	-	-	-	3,354	96	-	314	9	-	-	-	419
Agri Inputs	811	1,698	2,667	-	-	-	-	5,175	101	212	333	-	-	-	-	647
Matching Grant	3,520	5,840	8,680	9,360	5,640	4,440	-	37,480	440	730	1,085	1,170	705	555	-	4,685
Technical Assistance	3,877	4,400	4,994	4,768	3,325	1,709	1,070	24,143	485	550	624	596	416	214	134	3,018
Training & capacity building	4,613	3,496	6,847	7,976	8,383	5,424	2,069	38,808	577	437	856	997	1,048	678	259	4,851
Salary & Allowances	387	796	929	942	955	1,002	369	5,381	48	100	116	118	119	125	46	673
Other operating costs	944	1,548	1,564	1,488	1,452	1,452	800	9,248	118	194	196	186	182	182	100	1,156
<b>Total</b>	<b>18,673</b>	<b>21,618</b>	<b>33,791</b>	<b>28,127</b>	<b>25,035</b>	<b>19,307</b>	<b>4,308</b>	<b>150,859</b>	<b>2,334</b>	<b>2,702</b>	<b>4,224</b>	<b>3,516</b>	<b>3,129</b>	<b>2,413</b>	<b>539</b>	<b>18,857</b>

6. **Civil Works:** These procurements relate mainly to village irrigation/water supplies, renewable energy technologies, ecosystems stabilization infrastructure or other small productive infrastructure. They will be handled by UN-Habitat which will work closely with the Department of Transport and Civil Works. Procurement will be conducted as per UN rules and regulations for the part directly implemented by UN-Habitat, and for the activities implemented by UN-Habitat through the Department of Public Works & Transport; procurement will be as per Lao Government's procurement rules. All are experienced in procuring these types of works; adequate national contractors are available to undertake them. Contracts for civil works will be procured using National Competitive Bidding procedures as indicated by the Governments Implementing Rules and Regulations<sup>58</sup>, with the labour element, which will primarily be contribution in kind, supervised by community groups, overseen by the kum ban facilitator and/or the district offices of the relevant department.

7. **District Development Fund.** The ASAP FNML will explore the possibility of channeling SACCC community-based investment funding (Outcome 5) through the DDF (see para. 12), building

<sup>58</sup> Set out in Decrees 03/PM and 063/MOF of 2004.



off the district development planning process supported by MoNRE and MoHA through the LDCF/GPAR, projects, which have provided a climate smart focus to DDF financing.

8. **Vehicles and Equipment:** One general purpose double-cab four-wheel-drive pick-up, motor cycles for field staff, computing and GIS equipment and software, and a small amount 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 PRCO. The final procurement decision will be made by a committee constituted in line with the Implementing Rules and Regulations. Because these items are generally imported and will incur duty when they enter the country, 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<sup>59</sup> 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, home garden kits, etc. will be procured using local shopping, following established rules and procedures which require asking for at least three bids. 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 will mainly be done through quality and cost-based procurement (QCBS) by the PRCO. The compensation of all programme Technical Assistants 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.

12. **Most operating costs** which mainly comprise payment of per diems, fuel allowances and minor items such as stationery, vehicle repairs etc. will be by direct purchase following Government procedures. The upper threshold for direct purchase is LAK 3 million (USD 375).

13. **Procurement Plan for First 18 month:** As the majority of the procurement will be for community-based civil works, CBFM and innovation activities that will be identified through participatory planning processes and are thus unquantified at this juncture, no 18 month procurement plan has been prepared. Other SACCC procurement will be integrated into the FNML APWB on an annual basis.

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<sup>59</sup> Because this programme will be financed by a grant, not a loan, goods imported for use by the programme (with the exception of fuel) enjoy tax free status.



## Appendix 9: ASAP FNML cost and financing

### Main assumptions

- 1. Programme duration.** The duration of the ASAP FNML is seven years with a Programme start in September 2013. The ASAP components of the ASAP FNML will have a duration of five years, starting in 2015.
- 2. Prices and costs.** Costs for the ASAP FNML have been derived through the amalgamation of the FNML and FNML-SACCC Costab files. 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, or provided by the FNML team.
- 3. Inflation.** The local inflation scenario assumed in the ASAP FNML design document for the 7 years of the programme was 5%. So far, the average inflation has reached 4.26% in 2012 but has then accelerated substantially with 6.37% in 2013 and 5.65% for the first quarter of 2014 (Bank of Lao). The **forecasts** of the IMF, the World Bank and the Asian Development Bank for the next period estimate continuous high level of inflation (above 7% for the IMF and 6% for ADB). The original FNML design projection has been applied for the SACCC but this should be looked at during the mid-term review if forecasts turn out to be true. The foreign inflation scenario remains unchanged.

**Table 1 - Inflation rates (local and foreign)**

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
<b>2013 FNML Components</b>							
Foreign inflation	2%	2%	2%	2%	2%	2%	2%
Local inflation	5%	5%	5%	5%	5%	5%	5%
<b>2014 SACCC Components</b>							
Foreign inflation	-	-	2%	2%	2%	2%	2%
Local inflation	-	-	5%	5%	5%	5%	5%

- 4. Exchange rate.** The exchange rate of LAK 8,000/US\$ established for the FNML costing is still relevant **since the official exchange rate of the Bank of Lao in May 2014 was LAK 8,048/US\$.**
- 5. Contingencies, taxes and duties.** The FNML procurement, disbursement and expenditure accounts have been applied to the CCA-related activities. Physical and contingencies as well as taxes, duties and share of foreign exchange used in the FNML appraisal budget for each expenditure account have been maintained and applied to the CCA costs. The key expenditure account parameters are presented in Table 2.

**Table 2 - Physical contingencies, foreign exchange and taxes/duties per ASAP FNML expenditure accounts**

Expenditure accounts	Physical contingencies	Foreign exchange	Duties/taxes
<i>Civil works (grants)</i>	0%	25%	15%
<i>Vehicles</i>	-	50%	40%
<i>Equipment</i>	10%	90%	10%
<i>Agricultural inputs</i>	10%	10%	10%
<i>Matching grants</i>	-	-	-
<i>Trainings and capacity building</i>	10%	20%	-
<i>Technical assistance</i>	-	90%	-
<i>Salaries and allowances</i>	10%	-	-
<i>Other operating costs</i>	10%	50%	-

## Component costs

6. **Total component cost.** The total cost for the ASAP FNML is estimated at USD 18.86 million (LAK 150.86 million) including contingencies. The total base costs are USD 17.87 million (LAK 142.97 million). Physical and price contingencies account for USD 0.44 million and USD 0.54 million respectively (2% and 3% of the total base costs). Investment costs are estimated at USD 16.16 million representing 90% of total cost. The breakdown of the costs by component is shown in Table 3.

**Table 3 - Component cost summary by outcomes, ASAP FNML**

Components	(LAK Million)			(US\$ '000)			%	% Total
	Project Cost Summary			Foreign			Base	Costs
	Local	Foreign	Total	Local	Foreign	Total	Exchange	
1. Food and Nutrition Security & Pro-poor Market Access	36,429	7,708	44,137	4,554	964	5,517	17	31
2. Rural Finance	12,832	2,008	14,840	1,604	251	1,855	14	10
3. Institutional support	21,016	14,320	35,336	2,627	1,790	4,417	41	25
4. Strengthening of enabling environment for CC adaption	6,112	4,103	10,216	764	513	1,277	40	7
5. Climate change adaption fund disbursed	26,731	5,615	32,346	3,341	702	4,043	17	23
6. Climate change component project management	609	5,485	6,094	76	686	762	90	4
<b>Total BASELINE COSTS</b>	<b>103,729</b>	<b>39,239</b>	<b>142,968</b>	<b>12,966</b>	<b>4,905</b>	<b>17,871</b>	<b>27</b>	<b>100</b>
Physical Contingencies	2,626	910	3,536	328	114	442	26	2
Price Contingencies	3,903	452	4,354	488	56	544	10	3
<b>Total PROJECT COSTS</b>	<b>110,259</b>	<b>40,600</b>	<b>150,859</b>	<b>13,782</b>	<b>5,075</b>	<b>18,857</b>	<b>27</b>	<b>106</b>

7. **Cost by expenditure account.** The ASAP FNML component cost by expenditure accounts plan is shown in Table 4.

**Table 4 - Component costs by expenditure account, ASAP FNML**

Expenditure Accounts	(LAK Million)			(US\$ '000)			%	% Total
	Project Cost Summary			Foreign			Base	Costs
	Local	Foreign	Total	Local	Foreign	Total	Exchange	
<b>I. Investment Costs</b>								
A. Civil works	18,000	6,000	24,000	2,250	750	3,000	25	17
B. Vehicles	909	898	1,807	114	112	226	50	1
C. Equipment	308	2,775	3,083	39	347	385	90	2
D. Agri Inputs	4,293	459	4,752	537	57	594	10	3
E. Matching grant	37,480	-	37,480	4,685	-	4,685	-	26
F. Training & capacity building	27,490	6,755	34,244	3,436	844	4,281	20	24
G. Technical Assistance	2,404	21,536	23,940	300	2,692	2,993	90	17
<b>Total Investment Costs</b>	<b>90,884</b>	<b>38,423</b>	<b>129,307</b>	<b>11,361</b>	<b>4,803</b>	<b>16,163</b>	<b>30</b>	<b>90</b>
<b>II. Recurrent Costs</b>								
A. Salary & allowances	4,413	-	4,413	552	-	552	-	3
B. Other operating costs	8,432	816	9,248	1,054	102	1,156	9	6
<b>Total Recurrent Costs</b>	<b>12,845</b>	<b>816</b>	<b>13,661</b>	<b>1,606</b>	<b>102</b>	<b>1,708</b>	<b>6</b>	<b>10</b>
<b>Total BASELINE COSTS</b>	<b>103,729</b>	<b>39,239</b>	<b>142,968</b>	<b>12,966</b>	<b>4,905</b>	<b>17,871</b>	<b>27</b>	<b>100</b>
Physical Contingencies	2,626	910	3,536	328	114	442	26	2
Price Contingencies	3,903	452	4,354	488	56	544	10	3
<b>Total PROJECT COSTS</b>	<b>110,259</b>	<b>40,600</b>	<b>150,859</b>	<b>13,782</b>	<b>5,075</b>	<b>18,857</b>	<b>27</b>	<b>106</b>

## Financing plan

8. **Component cost by financier.** IFAD will provide a grant of USD 5 million (26.7%) from IFAD's Adaptation for Smallholder Agriculture Programme. IFAD will provide a further grant of USD 9.7 million (51.6%). The local banks and private enterprise are expected to contribute USD 1.48 million (7.8%). The Lao PDR contribution is estimated at USD 1.15 million (6.1%) and beneficiary contribution will be USD 1.47 million (7.8%). The Government will finance kum ban facilitators and taxes and duties. The ASAP FNML financing plan is shown in Table 5.

**Table 5 – Financing plan, ASAP FNML**

Components by Financiers (US\$ '000)	ASAP		The Government		IFAD Grant		Private Enterprise Sector		Banks	Farmer Beneficiaries		Total		For.	Local (Excl. Taxes)	Duties & Taxes	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes	Taxes
1. Food & Nutrition Security & Pro-poor Mkt Access	-	-	180	3.1	4,258	73.4	1,060	18.3	-	-	300	5.2	5,798	30.7	999	4,619	180
2. Rural Finance	-	-	-	-	1,195	64.4	300	16.2	120	6.5	240	12.9	1,855	9.8	251	1,604	-
3. Institutional support	-	-	377	8.1	4,269	91.9	-	-	-	-	-	-	4,646	24.6	1,805	2,694	147
4. Strengthening of enabling env't for CC adaption	1,538	100.0	0	-	-	-	-	-	-	-	-	-	1,538	8.2	567	971	-
5. Climate change adaption fund disbursed	3,208	75.7	99	2.3	-	-	-	-	-	-	932	22.0	4,238	22.5	750	3,390	99
6. Climate change component project management	285	36.4	497	63.6	-	-	-	-	-	-	-	-	782	4.1	703	78	-
<b>Total PROJECT COSTS</b>	<b>5,031</b>	<b>26.7</b>	<b>1,153</b>	<b>6.1</b>	<b>9,722</b>	<b>51.6</b>	<b>1,360</b>	<b>7.2</b>	<b>120</b>	<b>0.6</b>	<b>1,472</b>	<b>7.8</b>	<b>18,857</b>	<b>100.0</b>	<b>5,075</b>	<b>13,356</b>	<b>426</b>

9. **Component cost by outcome.** The total ASAP FNML costs are divided among the six Outcomes as follows: Outcome 1 Food and Nutritional Security and Pro-Poor Market Access USD 5.52 million, Outcome 2 Rural Finance USD 1.86 million, Outcome 3 Institutional support USD 4.42 million, Outcome 4 Strengthening of enabling environment for climate change adaptation USD 1.28 million, Outcome 5 Climate change adaptation fund disbursed USD 4.04 million and Outcome 6 Programme Management USD 0.76 million. Details are shown in Table 3 above.

## **Appendix 9 – Annexes**

Cost table 1: Detailed cost table – Outcome 1

Cost table 2: Detailed cost table – Outcome 2

Cost table 3: Detailed cost table – Outcome 3

Cost table 4: Detailed cost table – Outcome 4

Cost table 5: Detailed cost table – Outcome 5

Cost table 6: Detailed cost table – Outcome 6

Cost table 7: Summary cost table – Expenditure accounts by financier

Cost table 8: Summary cost table – Programme component by year (total incl. contingencies)

Cost table 9: Summary cost table – Expenditure account by year (total incl. contingencies)

### Cost table 1: Detailed cost table – Outcome 1: Food and Nutrition Security & Propoor Market Access

(US\$)

	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)								
		13/14	14/15	15/16	16/17	17/18	18/19	19/20		Total	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
<b>I. Investment Costs</b>																		
<b>A. Preparatory Activities</b>																		
<b>1. Market Identification</b>																		
Provincial Reference Groups	workshop	6	-	-	-	-	-	-	6	1,500	10.6	-	-	-	-	-	-	10.6
Main Crop value chain Studies: ITA	pers_month	2	-	-	-	-	-	-	2	20,000	41.4	-	-	-	-	-	-	41.4
Main crop value chain studies: National TA	pers_month	4	-	-	-	-	-	-	4	3,000	12.4	-	-	-	-	-	-	12.4
Initial assessment of Market Opportunities:ITA	pers_month	3	-	-	3	-	-	-	6	20,000	62.1	-	-	66.6	-	-	-	128.7
Initial assessment of market opportunities National TA	pers_month	6	-	-	6	-	-	-	12	3,000	18.6	-	-	20.0	-	-	-	38.6
Market opprtunities selection: Provincial w orkshop	workshop	-	-	-	3	-	-	-	3	1,000	-	-	-	4.0	-	-	-	4.0
Market opprtunities selection: National workshop /a	workshop	1	-	-	1	-	-	-	2	5,000	5.9	-	-	6.7	-	-	-	12.7
<b>Subtotal Market Identification</b>											151.2	-	-	97.3	-	-	-	248.6
<b>2. Capacity building at district level</b>																		
District stakeholders w orkshop /b	workshop	5	-	-	-	-	-	-	5	300	1.8	-	-	-	-	-	-	1.8
Capacity building on livelihoods, nutrition analysis, PLUP & Group formation	lumpsum										107.5	84.2	87.9	-	-	-	-	279.7
<b>Subtotal Capacity building at district level</b>											109.3	84.2	87.9	-	-	-	-	281.5
<b>Subtotal Preparatory Activities</b>											260.5	84.2	87.9	97.3	-	-	-	530.0
<b>B. Village Programming</b>																		
Village profiling	villages	150	-	-	-	-	-	-	150	125	22.2	-	-	-	-	-	-	22.2
Livelihood/nutritional analysis, landuse planning	village	25	50	75	-	-	-	-	150	600	17.7	37.1	58.0	-	-	-	-	112.8
<b>Subtotal Village Programming</b>											39.9	37.1	58.0	-	-	-	-	135.0
<b>C. Business Partnership Development</b>																		
<b>1. Support to Subproject Preparation</b>																		
Main Value Chains /c	Lumpsum										21.5	22.5	23.5	-	-	-	-	67.4
New Opportunities	Lumpsum										-	-	64.5	67.4	70.4	-	-	202.2
Scaling-up/Innovation	Lumpsum										-	-	-	67.4	70.4	73.5	-	211.3
<b>Subtotal Support to Subproject Preparation</b>											21.5	22.5	87.9	134.7	140.7	73.5	-	480.9

**Cost table 1: Detailed cost table – Outcome 1: Food and Nutrition Security & Propoor Market Access – cont'd**

(US\$)	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)							
		13/14	14/15	15/16	16/17	17/18	18/19	19/20		Total	13/14	14/15	15/16	16/17	17/18	18/19	19/20
<b>2. Main Value Chain Development</b>																	
TA, promotion, marketing																	
VC linkages, capacity building	Lumpsum									150.0	250.0	400.0	-	-	-	-	800.0
Infrastructure and Productive Equipment																	
For Other VC stakeholders	lumpsum									240.0	360.0	-	-	-	-	-	600.0
<b>Subtotal Main Value Chain Development</b>										<b>390.0</b>	<b>610.0</b>	<b>400.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,400.0</b>
<b>3. Reserve for upscaling</b>																	
Existing Main VC	Lumpsum									-	-	-	100.0	100.0	100.0	-	300.0
Selected Opportunities	Lumpsum									-	-	-	120.0	120.0	120.0	-	360.0
New Identified Opportunities	Lumpsum									-	-	-	-	120.0	120.0	-	240.0
<b>Subtotal Reserve for upscaling</b>										<b>-</b>	<b>-</b>	<b>-</b>	<b>220.0</b>	<b>340.0</b>	<b>340.0</b>	<b>-</b>	<b>900.0</b>
4. Legal assistance	Lumpsum									15.0	30.0	45.0	-	-	-	-	90.0
5. Partnership Agreements	Lumpsum	1	-	-	-	-	-	-	1 <sup>a</sup>	15,000	17.7	-	-	-	-	-	17.7
6. Drafting of MOUs	Lumpsum	1	-	-	-	-	-	-	1 <sup>a</sup>	15,000	17.7	-	-	-	-	-	17.7
<b>Subtotal Business Partnership Development</b>										<b>462.0</b>	<b>662.5</b>	<b>532.9</b>	<b>354.7</b>	<b>480.7</b>	<b>413.5</b>	<b>-</b>	<b>2,906.4</b>
<b>D. Food and Nutrition Security</b>																	
<b>1. Sustainable Agriculture Intensification</b>																	
Training on natural fertilisers or safe use of fertilisers	Lumpsum									-	12.4	-	-	-	-	-	12.4
Access to improved technologies	villages	25	75	150	125	75	-	-	450 <sup>b</sup>	500	14.8	46.3	96.7	84.2	52.8	-	294.8
<b>Subtotal Sustainable Agriculture Intensification</b>										<b>14.8</b>	<b>58.7</b>	<b>96.7</b>	<b>84.2</b>	<b>52.8</b>	<b>-</b>	<b>-</b>	<b>307.2</b>
<b>2. Nutrition</b>																	
Support to nutrition and cooking capacity building	village	25	50	75	-	-	-	-	150 <sup>c</sup>	150	4.0	8.4	13.2	-	-	-	25.6
Home gardening starter kits /d	households	1,875	3,750	5,625	-	-	-	-	11,250 <sup>c</sup>	50	101.3	212.2	333.4	-	-	-	646.9
Clean water access /e	System	10	20	20	-	-	-	-	50 <sup>c</sup>	24,000	240.0	480.0	480.0	-	-	-	1,200.0
<b>Subtotal Nutrition</b>										<b>345.4</b>	<b>700.6</b>	<b>826.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,872.5</b>
<b>3. Innovation through farmers</b>																	
In-country exchange visits or study tours to farmers	district	-	2	3	2	3	-	-	10 <sup>b</sup>	3,500	-	8.6	13.5	9.4	14.8	-	46.4
<b>Subtotal Food and Nutrition Security</b>										<b>360.1</b>	<b>768.0</b>	<b>936.8</b>	<b>93.6</b>	<b>67.6</b>	<b>-</b>	<b>-</b>	<b>2,226.1</b>
<b>Total</b>										<b>1,122.6</b>	<b>1,551.7</b>	<b>1,615.8</b>	<b>545.7</b>	<b>548.3</b>	<b>413.5</b>	<b>-</b>	<b>5,797.6</b>

<sup>a</sup> Cost inclusive of participants' travel

<sup>b</sup> Cost including DSA, transport and logistics for 40 persons per district

<sup>c</sup> Consisting of vegetables, cassava, maize and coffee.

<sup>d</sup> 75% of target villages' households

<sup>e</sup> cost inclusive of survey, design and construction and formation of user groups in 40% of targeted villages



**Cost table 2: Detailed cost table – Outcome 2: Rural Finance**

(US\$)

	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)								
		13/14	14/15	15/16	16/17	17/18	18/19	19/20		Total	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
<b>I. Investment Costs</b>																		
<b>A. Financial instruments</b>																		
<b>1. Main Value Chain Development</b>																		
Infrastructure & productive equipment for Target Beneficiaries	Lumpsum										50.0	120.0	70.0	-	-	-	-	240.0
<b>2. New Opportunities</b>																		
Implementation Patterns of New Opportunities	Units	-	-	4	6	-	-	-	10		-	-	-	-	-	-	-	-
Matching grant	Units	-	-	4	6	-	-	-	10	72,000	-	-	288.0	432.0	-	-	-	720.0
Beneficiaries contribution	Units	-	-	4	6	-	-	-	10	18,000	-	-	72.0	108.0	-	-	-	180.0
Private sector contribution	Units	-	-	4	6	-	-	-	10	30,000	-	-	120.0	180.0	-	-	-	300.0
<b>Subtotal New Opportunities</b>											-	-	480.0	720.0	-	-	-	1,200.0
3. Capacity building for Nayoby Bank	Lumpsum										75.0	50.0	50.0	-	-	-	-	175.0
4. Technical Assistance	pers_month	-	4	4	2	2	-	-	12	20,000	-	80.0	80.0	40.0	40.0	-	-	240.0
<b>Total</b>											125.0	250.0	680.0	760.0	40.0	-	-	1,855.0

**Cost table 3: Detailed cost table – Outcome 3: Institutional Support**

(US\$)	Unit	Quantities							Unit Cost	Totals Including Contingencies ('000)								
		13/14	14/15	15/16	16/17	17/18	18/19	19/20		Total	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
<b>I. Investment Costs</b>																		
<b>A. Value chain governance &amp; policy research</b>																		
Studies	Lumpsum										90.0	90.0	90.0	90.0	90.0	-	-	450.0
Multi-stakeholders Platforms	Lumpsum										-	6.0	8.0	8.0	8.0	8.0	-	38.0
<b>Subtotal Value chain governance &amp; policy research</b>																		
											90.0	96.0	98.0	98.0	98.0	8.0	-	488.0
<b>B. Inception Workshops</b>																		
National workshop	Workshop	1	-	-	-	-	-	-	1	5,000	5.4	-	-	-	-	-	-	5.4
<b>C. Monitoring &amp; Evaluation</b>																		
<b>1. Surveys</b>																		
Baseline	Survey	1	-	-	-	-	-	-	1	50,000	59.1	-	-	-	-	-	-	59.1
MIS establishment & training	lumpsum										35.4	-	-	-	-	-	-	35.4
Website	Lumpsum										11.8	-	-	-	-	-	-	11.8
M&E / KM workshop	Lumpsum										3.5	-	-	-	-	-	-	3.5
RIMS MTR survey	Survey	-	-	-	1	-	-	-	1	25,000	-	-	-	33.6	-	-	-	33.6
RIMS PCR Survey	Survey	-	-	-	-	-	-	1	1	25,000	-	-	-	-	-	-	38.2	38.2
Annual outcome surveys	Survey	-	1	1	1	1	1	1	6	10,000	-	12.4	12.9	13.5	14.1	14.7	15.4	82.9
<b>Subtotal Surveys</b>																		
											109.9	12.4	12.9	47.1	14.1	14.7	53.6	264.6
<b>2. Annual Audits</b>																		
Annual audit	Audit	1	1	1	1	1	1	-	6	15,000	16.1	16.8	17.6	18.4	19.2	20.1	-	108.2
<b>Subtotal Monitoring &amp; Evaluation</b>																		
											126.0	29.2	30.5	65.4	33.3	34.8	53.6	372.7
<b>D. Knowledge Management</b>																		
Communication & publication	lumpsum										-	12.3	25.7	26.9	28.0	29.3	15.3	137.6
PCR Preparation	Lumpsum	-	-	-	-	-	-	1	1	10,000	-	-	-	-	-	-	15.4	15.4
<b>Subtotal Knowledge Management</b>																		
											-	12.3	25.7	26.9	28.0	29.3	30.7	152.9
E. PIM preparation	Lumpsum	1	-	-	-	-	-	-	1	20,000	23.7	-	-	-	-	-	-	23.7
<b>F. Technical Assistance</b>																		
Programme Management Advisor	pers_year	0.5	1	1	0.5	-	-	-	3	180,000	90.0	180.0	180.0	90.0	-	-	-	540.0
Agronomist	pers_month	-	3	2	2	-	-	-	7	20,000	-	60.0	40.0	40.0	-	-	-	140.0
Farmers group & extension specialist	pers_month	-	3	2	2	-	-	-	7	20,000	-	60.0	40.0	40.0	-	-	-	140.0
Business Development Specialist	pers_month	5	4	2	2	2	-	-	15	20,000	100.0	80.0	40.0	40.0	40.0	-	-	300.0
Targeting & Gender specialist	pers_month	2	1	1	-	-	-	-	4	20,000	40.0	20.0	20.0	-	-	-	-	80.0
Finance Management & Procurement Advisor	pers_month	3	1.5	-	-	-	-	-	4.5	20,000	60.0	30.0	-	-	-	-	-	90.0
M&E and KM Advisor	pers_month	3	2	2	1	-	-	-	8	20,000	60.0	40.0	40.0	20.0	-	-	-	160.0
<b>Subtotal Technical Assistance</b>																		
											350.0	470.0	360.0	230.0	40.0	-	-	1,450.0
<b>G. Vehicles</b>																		
4WD Pickups	Unit	4	-	-	-	-	-	-	4	25,000	104.0	-	-	-	-	-	-	104.0
Motor cycles	Unit	50	-	-	-	-	-	-	50	2,000	104.0	-	-	-	-	-	-	104.0
Motor cycles for DAFOs	Unit	10	-	-	-	-	-	-	10	2,000	20.8	-	-	-	-	-	-	20.8
<b>Subtotal Vehicles</b>																		
											228.7	-	-	-	-	-	-	228.7

**Cost table 3: Detailed cost table – Outcome 3: Institutional Support – Cont'd**

(US\$)

	Unit	Quantities							Total	Unit Cost	Totals Including Contingencies ('000)							Total
		13/14	14/15	15/16	16/17	17/18	18/19	19/20			13/14	14/15	15/16	16/17	17/18	18/19	19/20	
<b>H. Office equipment</b>																		
Office furniture for PRCO	set	1	-	-	-	-	-	-	1	8,000	8.2	-	-	-	-	-	-	8.2
Office furniture for DAFOs	set	5	-	-	-	-	-	-	5	1,000	5.2	-	-	-	-	-	-	5.2
Laptop computers	Unit	7	-	-	-	-	-	-	7	2,000	14.4	-	-	-	-	-	-	14.4
Desktop computers	Unit	11	-	-	-	-	-	-	11	1,200	13.6	-	-	-	-	-	-	13.6
Printers	Unit	18	-	-	-	-	-	-	18	100	1.9	-	-	-	-	-	-	1.9
Multi-task printers	Unit	2	-	-	-	-	-	-	2	2,500	5.2	-	-	-	-	-	-	5.2
LCD Projectors	Unit	2	-	-	-	-	-	-	2	5,000	10.3	-	-	-	-	-	-	10.3
Desktop computers for DAFOs	Unit	5	-	-	-	-	-	-	5	1,200	6.2	-	-	-	-	-	-	6.2
Printers for DAFOs	Unit	5	-	-	-	-	-	-	5	100	0.5	-	-	-	-	-	-	0.5
GPS	Unit	10	-	-	-	-	-	-	10	2,000	20.6	-	-	-	-	-	-	20.6
Accounting software /a	Unit	1	-	-	-	-	-	-	1	10,000	10.3	-	-	-	-	-	-	10.3
<b>Subtotal Office equipment</b>											<b>96.3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>96.3</b>
<b>Total Investment Costs</b>											<b>920.1</b>	<b>607.5</b>	<b>514.2</b>	<b>420.3</b>	<b>199.3</b>	<b>72.0</b>	<b>84.3</b>	<b>2,817.7</b>
<b>II. Recurrent Costs</b>																		
<b>A. Staff salary: PRCO</b>																		
Programme Coordinator	pers_month	6	12	12	12	12	12	6	72	200	1.3	2.7	2.9	3.0	3.2	3.3	1.7	18.2
Finance Officer	pers_month	6	12	12	12	12	12	6	72	150	1.0	2.1	2.2	2.3	2.4	2.5	1.3	13.6
M&E Officer	pers_month	6	12	12	12	12	12	6	72	100	0.7	1.4	1.4	1.5	1.6	1.7	0.9	9.1
Procurement Officer	pers_month	6	12	12	12	12	12	6	72	150	1.0	2.1	2.2	2.3	2.4	2.5	1.3	13.6
KM Officer	pers_month	6	12	12	12	12	12	6	72	100	0.7	1.4	1.4	1.5	1.6	1.7	0.9	9.1
Agronomist	pers_month	6	12	12	12	12	12	6	72	150	1.0	2.1	2.2	2.3	2.4	2.5	1.3	13.6
Extension Officers at DAFO level /b	pers_month	60	120	120	120	120	120	60	720	100	6.5	13.7	14.4	15.1	15.8	16.6	8.7	90.9
Accountant	pers_month	6	12	12	12	12	12	6	72	100	0.7	1.4	1.4	1.5	1.6	1.7	0.9	9.1
Asst Accountant	pers_month	6	12	12	12	12	12	6	72	70	0.5	1.0	1.0	1.1	1.1	1.2	0.6	6.4
Business Development Officers	pers_month	18	36	36	36	36	36	18	216	150	2.9	6.2	6.5	6.8	7.1	7.5	3.9	40.9
Translator	pers_month	12	12	12	12	12	12	12	84	150	2.0	2.1	2.2	2.3	2.4	2.5	2.6	15.9
Cashier	pers_month	6	12	12	12	12	12	6	72	50	0.3	0.7	0.7	0.8	0.8	0.8	0.4	4.5
Secretaries	pers_month	12	24	24	24	24	24	12	144	50	0.7	1.4	1.4	1.5	1.6	1.7	0.9	9.1
Drivers	pers_month	42	84	84	84	84	84	42	504	45	2.1	4.3	4.5	4.8	5.0	5.2	2.8	28.6
Cleaner	pers_month	6	12	12	12	12	12	6	72	40	0.3	0.5	0.6	0.6	0.6	0.7	0.3	3.6
Guards	pers_month	12	24	24	24	24	24	12	144	40	0.5	1.1	1.1	1.2	1.3	1.3	0.7	7.3
Kun Ban Facilitators	pers_month	160	318	480	480	480	480	-	2,398	60	10.4	21.8	34.5	36.2	38.0	39.9	-	180.9
<b>Subtotal Staff salary: PRCO</b>											<b>32.3</b>	<b>65.6</b>	<b>80.6</b>	<b>84.6</b>	<b>88.8</b>	<b>93.3</b>	<b>29.3</b>	<b>474.5</b>
<b>B. Staff Salary: Other</b>																		
DAFO staff /c	Pers_month	60	120	120	120	120	120	60	720	50	3.6	7.5	7.9	8.3	8.7	9.2	4.8	50.0
DONRO staff /d	Pers_month	60	120	120	60	-	-	-	360	50	3.6	7.5	7.9	4.2	-	-	-	23.2
LWU staff /e	Pers_month	60	120	120	120	120	120	60	720	50	3.6	7.5	7.9	8.3	8.7	9.2	4.8	50.0
DOH staff /f	Pers_month	30	60	60	60	60	60	30	360	50	1.8	3.8	4.0	4.2	4.4	4.6	2.4	25.0
Public Works staff /g	Pers_month	30	60	60	60	60	60	30	360	50	1.8	3.8	4.0	4.2	4.4	4.6	2.4	25.0
DOIC staff /h	Pers_month	30	60	60	60	60	60	30	360	50	1.8	3.8	4.0	4.2	4.4	4.6	2.4	25.0
<b>Subtotal Staff Salary: Other</b>											<b>16.1</b>	<b>33.9</b>	<b>35.6</b>	<b>33.2</b>	<b>30.5</b>	<b>32.0</b>	<b>16.8</b>	<b>198.2</b>

**Cost table 3: Detailed cost table – Outcome 3: Institutional Support – Cont'd**

(US\$)

	Unit	Quantities							Total	Unit Cost	Totals Including Contingencies ('000)							Total
		13/14	14/15	15/16	16/17	17/18	18/19	19/20			13/14	14/15	15/16	16/17	17/18	18/19	19/20	
<b>C. Travel costs</b>																		
PRCO DSA	Lumpsum										12.5	25.0	25.0	25.0	25.0	25.0	12.5	150.0
DAFO DSA	pers_year	10	10	10	10	10	10	-	60	1,000	10.0	10.0	10.0	10.0	10.0	10.0	-	60.0
DONRE DSA	pers_year	10	10	10	-	-	-	-	30	500	5.0	5.0	5.0	-	-	-	-	15.0
DHO DSA	pers_year	5	5	5	5	5	5	-	30	300	1.5	1.5	1.5	1.5	1.5	1.5	-	9.0
LWU DSA	pers_year	5	10	10	10	10	10	5	60	600	3.0	6.0	6.0	6.0	6.0	6.0	3.0	36.0
DOIC DSA	pers_year	5	10	10	10	10	10	5	60	500	2.5	5.0	5.0	5.0	5.0	5.0	2.5	30.0
Public Works DSA	pers_year	5	10	10	10	10	10	5	60	500	2.5	5.0	5.0	5.0	5.0	5.0	2.5	30.0
Fuel costs: PRCO	month	6	12	12	12	12	12	6	72	2,000	12.0	24.0	24.0	24.0	24.0	24.0	12.0	144.0
Fuel costs: DAFOs	month	30	60	60	60	60	60	30	360	500	15.0	30.0	30.0	30.0	30.0	30.0	15.0	180.0
Fuel costs: DONRE	month	15	30	30	15	-	-	-	90	300	4.5	9.0	9.0	4.5	-	-	-	27.0
Fuel costs: DHO	month	15	30	30	30	30	30	15	180	300	4.5	9.0	9.0	9.0	9.0	9.0	4.5	54.0
Fuel costs: LWU	month	15	30	30	30	30	30	15	180	300	4.5	9.0	9.0	9.0	9.0	9.0	4.5	54.0
Fuel costs DOIC	month	15	30	30	30	30	30	15	180	300	4.5	9.0	9.0	9.0	9.0	9.0	4.5	54.0
Fuel costs Public works	month	15	30	30	30	30	30	15	180	300	4.5	9.0	9.0	9.0	9.0	9.0	4.5	54.0
Fuel costs for Kunban facilitators	month	15	30	40	40	40	40	30	235	200	3.0	6.0	8.0	8.0	8.0	8.0	6.0	47.0
<b>Subtotal Travel costs</b>											89.5	162.5	164.5	155.0	150.5	150.5	71.5	944.0
<b>D. Other operating costs</b>																		
Operating costs: Vehicles	vehicle	5	5	5	5	5	5	5	35	5,200	26.0	26.0	26.0	26.0	26.0	26.0	26.0	182.0
Miscellaneous	lumpsum										2.5	5.0	5.0	5.0	5.0	5.0	2.5	30.0
<b>Subtotal Other operating costs</b>											28.5	31.0	31.0	31.0	31.0	31.0	28.5	212.0
<b>Total Recurrent Costs</b>											166.4	293.0	311.6	303.8	300.8	306.8	146.1	1,828.7
<b>Total</b>											1,086.5	900.5	825.9	724.1	500.2	378.8	230.4	4,646.4

\a Cost including on the job training  
 \b 2 persons in each of the target districts

\c 2 staff per district for 6 years  
 \d 2 staff per district for initial 3 year period  
 \e 2 staff per district  
 \f One staff per district

\g One staff per district  
 \h One staff per district

**Cost table 4: Detailed cost table – Outcome 4: Strengthening of Enabling Environment for Climate Change Adaptation**

(US\$)

	Unit	Quantities								Unit Cost	Totals Including Contingencies ('000)							
		13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total		13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
<b>I. Investment Costs</b>																		
<b>A. Participating technical ministries are informed</b>																		
National workshop on climate change adaptation in agriculture	workshop	-	-	1	-	-	-	-	1	10,000	-	-	11.0	-	-	-	-	11.0
Provincial seminars on climate change adaptation in agriculture	seminar	-	-	1	-	1	-	1	3	4,000	-	-	4.4	-	4.4	-	4.4	13.2
Assessment of climate change vulnerability in project provinces	lps	-	-	-	-	-	-	-	-	-	-	-	20.0	20.0	-	-	-	40.0
National exposure visits to CCA technology fieldsites	visits	-	-	2	1	1	1	1	6	5,000	-	-	11.0	5.5	5.5	5.5	5.5	33.0
<b>Subtotal Participating technical ministries are informed</b>											-	-	46.4	25.5	9.9	5.5	9.9	97.2
<b>B. Participatory local adaptation investment plans prepared</b>																		
Preparation of training materials and methodological guides for community-based PSD and VRA	lps	-	-	-	-	-	-	-	-	-	-	-	9.0	-	-	-	-	9.0
Training of provincial and district trainers in community-based PSD and VRA	training	-	-	3	-	-	-	-	3	3,000	-	-	10.1	-	-	-	-	10.1
Training of provincial and district trainers in community-based CCA needs assessment	training	-	-	3	-	-	-	-	3	3,000	-	-	10.1	-	-	-	-	10.1
Training of kum ban facilitators in community-based CCA needs assessment	training	-	-	3	-	-	-	-	3	3,000	-	-	10.1	-	-	-	-	10.1
PSD/VRA awareness building amongst key MAF, MonRE and NAFRI staff	training	-	-	1	-	-	-	-	1	5,000	-	-	5.6	-	-	-	-	5.6
Capacity building in PSD/VRA for kum ban facilitators	training	-	-	3	-	-	-	-	3	4,000	-	-	13.5	-	-	-	-	13.5
District-level diagnostic of ongoing CC adaptation	training	-	-	5	-	-	-	-	5	3,000	-	-	16.9	-	-	-	-	16.9
Raising community awareness of PSD and CCA	village	-	-	30	60	50	-	-	140	300	-	-	10.1	21.1	18.4	-	-	49.6
Community-based climate change needs assessment planning	village	-	-	30	60	50	-	-	140	550	-	-	18.5	38.7	33.7	-	-	91.0
Community-based PSD and VRA and development of CCA investment plans	lps	-	-	-	-	-	-	-	-	-	-	-	28.1	35.2	61.3	-	-	124.6
Cross-visits by district & kum ban facilitators	visits	-	-	-	5	5	5	5	20	1,200	-	-	-	7.0	7.4	7.7	8.0	30.1
Field visits/study tours for MAF management	visits	-	-	-	1	1	1	1	4	3,000	-	-	-	3.5	3.7	3.8	4.0	15.0
Curriculum development for community leadership training	lps	-	-	-	-	-	-	-	-	-	-	-	-	5.9	-	-	-	5.9
Leadership training for Community Committees	course	-	-	10	20	30	-	-	60	600	-	-	6.7	14.1	22.1	-	-	42.9
Training of women leaders	visits	-	-	5	10	15	-	-	30	800	-	-	4.5	9.4	14.7	-	-	28.6
Coaching & mentoring women leaders	lps	-	-	-	1	1	1	1	4	2,000	-	-	-	2.3	2.5	2.6	2.7	10.0
<b>Subtotal Participatory local adaptation investment plans prepared</b>											-	-	143.3	137.3	163.6	14.1	14.7	473.1
<b>C. Enhancement of GIS landscape analysis capacity</b>																		
GIS equipment	lps	-	-	1	-	-	-	-	1	85,000	-	-	94.6	-	-	-	-	94.6
Software support	lps	-	-	1	-	-	-	-	1	30,000	-	-	33.4	-	-	-	-	33.4
Staff training	course	-	-	1	2	-	2	-	5	7,000	-	-	7.9	16.4	-	17.9	-	42.2
Watershed-based planning	lps	-	-	-	2	3	-	-	5	10,000	-	-	-	23.5	36.8	-	-	60.2
National GIS TA	pers-month	-	-	1	3	3	2	2	11	3,500	-	-	3.5	10.9	11.1	7.6	7.8	40.9
International GIS-based landscape planning specialist	pers-month	-	-	1	0.5	0.5	-	-	2	20,000	-	-	20.2	10.3	10.6	-	-	41.2
<b>Subtotal Enhancement of GIS landscape analysis capacity</b>											-	-	159.6	61.1	58.5	25.5	7.8	312.5

**Cost table 4: Detailed cost table – Outcome 4: Strengthening of Enabling Environment for Climate Change Adaptation – Cont'd**

(US\$)

	Unit	Quantities								Unit Cost	Totals Including Contingencies ('000)								
		13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total		13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total	
<b>D. Climate change adaptation knowledge enhanced</b>																			
<b>1. Partnership development</b>																			
Sector group meetings	meeting	-	-	1	2	2	2	2	9	2,000	-	-	2.6	5.4	5.6	5.9	6.1	25.6	
WOCAT task force workshops	workshop	-	-	1	2	2	2	2	9	4,000	-	-	5.2	10.8	11.3	11.8	12.3	51.3	
<b>Subtotal Partnership development</b>																			
<b>2. Knowledge management platform</b>																			
TA WOCAT	pers-month	-	-	1	1	1	-	-	3	20,000	-	-	21.7	22.2	22.7	-	-	66.6	
Workshops	workshop	-	-	3	-	-	-	-	3	6,000	-	-	23.2	-	-	-	-	23.2	
Database hosting	lps	-	-	0.5	1	1	1	1	4.5	2,000	-	-	1.3	2.7	2.8	2.9	3.1	12.8	
Study tour across provinces	visits	-	-	-	1	1	1	1	4	3,500	-	-	-	4.7	4.9	5.1	5.4	20.2	
<b>Subtotal Knowledge management platform</b>																			
<b>3. Advocacy</b>																			
Strategy development	pers-month	-	-	-	-	1	-	-	1	15,000	-	-	-	-	17.0	-	-	17.0	
Data collection for micronarratives	pers-month	-	-	-	-	20	-	-	20	1,000	-	-	-	-	22.7	-	-	22.7	
Micronarratives	pers-month	-	-	-	-	2	-	-	2	20,000	-	-	-	-	45.4	-	-	45.4	
Tasforce workshop to finalize strategy	workshop	-	-	-	-	1	-	-	1	5,000	-	-	-	-	7.0	-	-	7.0	
Advocacy products	lps	-	-	-	-	-	1	1	2	20,000	-	-	-	-	-	29.4	30.7	60.1	
Media study tours	visits	-	-	-	-	-	1	1	2	30,000	-	-	-	-	-	44.1	46.1	90.2	
<b>Subtotal Advocacy</b>																			
<b>4. Adaptive research</b>																			
Adaptive and participatory action research programme	lps	-	-	-	2	1	1	1	5	30,000	-	-	-	80.8	42.2	44.1	46.1	213.3	
<b>Total</b>													403.3	350.6	413.8	188.5	182.2	1,538.2	

**Cost table 5: Detailed cost table – Outcome 5: Climate Change Adaptation Fund**

(US\$)		Quantities								Totals Including Contingencies ('000)								
Unit		13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total	Unit Cost	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
<b>I. Investment Costs</b>																		
<b>A. Community-based small-scale water infrastructure</b>																		
Civil works /a	lps	-	-	-	-	-	-	-	-	-	-	-	220.0	440.0	660.0	660.0	-	1,980.0
Investment design and supervision (UN Habitat)	lps	-	-	-	-	-	-	-	-	-	-	-	30.0	50.0	80.0	80.0	-	240.0
<b>Subtotal Community-based small-scale water infrastructure</b>																		
<b>B. Community-based forest management</b>																		
Provincial and District staff awareness training on community based forest management	course	-	-	1	2	-	-	-	3	2,000	-	-	2.2	4.4	-	-	-	6.6
Kum ban facilitator awareness training on community based forest management	course	-	-	1	3	-	-	-	4	800	-	-	0.9	2.6	-	-	-	3.5
Inter-provincial study tours for provincial and district staff and kum ban facilitators	study tour	-	-	-	1	-	1	-	2	1,500	-	-	-	1.7	-	1.7	-	3.3
Preparation of forestry and agro-forestry manual for CBFM groups	lps	-	-	1	-	-	-	-	1	10,000	-	-	11.0	-	-	-	-	11.0
Farmer group awareness training on community based forest management	training	-	-	10	20	-	30	-	60	300	-	-	3.3	6.6	-	9.9	-	19.8
Establishment of CBFM groups	group	-	-	30	60	85	-	-	175	350	-	-	11.6	23.1	32.7	-	-	67.4
Outcome-based agro-forestry investment and technical advisory service contracts /b	lps-group	-	-	30	60	90	30	-	210	4,500	-	-	135.0	270.0	405.0	135.0	-	945.0
<b>Subtotal Community-based forest management</b>																		
<b>C. Climate change on-farm adaptation innovation fund</b>																		
Provincial and District staff awareness training on innovation fund management	course	-	-	1	2	-	-	-	3	1,000	-	-	1.1	2.2	-	-	-	3.3
Kum ban facilitator awareness training on innovation fund management	course	-	-	1	3	-	-	-	4	1,000	-	-	1.1	3.3	-	-	-	4.4
Preparation of innovation fund manual	lps	-	-	1	-	-	-	-	1	6,000	-	-	6.0	-	-	-	-	6.0
Farmer group awareness training on innovation fund	training	-	-	30	60	85	-	-	175	250	-	-	8.3	16.5	23.4	-	-	48.1
Farmer group innovation grants /c	lps-group	-	-	-	30	50	70	-	150	6,000	-	-	-	180.0	300.0	420.0	-	900.0
<b>Total</b>																		
<b>-</b>																		

\a 20% of in-kind contribution from beneficiaries

\b 25% of in-kind contribution from beneficiaries

\c 25% of contribution from beneficiaries

**Cost table 6: Detailed cost table – Outcome 6: Project Management**

(US\$)		Quantities							Totals Including Contingencies ('000)									
Unit		13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total	Unit Cost	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
<b>I. Investment Costs</b>																		
<b>A. Vehicle and equipment</b>																		
Vehicle /a	unit	-	-	5	-	-	-	-	5	30,000	-	-	166.9	-	-	-	-	166.9
Laptop computer	unit	-	-	5	-	-	-	-	5	1,000	-	-	5.6	-	-	-	-	5.6
Tablets for kum ban facilitators	unit	-	-	30	20	-	-	-	50	400	-	-	13.4	9.1	-	-	-	22.5
<b>Subtotal Vehicle and equipment</b>											-	-	185.8	9.1	-	-	-	194.9
<b>B. Technical assistance</b>																		
TA CCA	pers-month	-	-	12	12	12	12	12	60	1,500	-	-	18.0	18.0	18.0	18.0	18.0	90.0
Kum ban facilitators	pers-year	-	-	30	50	50	50	50	230	2,160	-	-	64.8	108.0	108.0	108.0	108.0	496.8
<b>Total</b>											-	-	268.6	135.1	126.0	126.0	126.0	781.7

\a One vehicle with RPCO, one with NAFRI and one for each Province



**Cost table 7: Summary cost table – Expenditure accounts by financier**

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**Expenditure Accounts by Financiers**

(US\$ '000)

	ASAP		The Government		IFAD Grant		Private Enterprise Sector		Banks		Farmer Beneficiaries		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
<b>I. Investment Costs</b>																	
A. Civil works	1,411	44.4	279	8.8	1,020	32.1	-	-	-	-	470	14.8	3,180	16.9	795	2,106	279
B. Vehicles	-	-	91	40.0	137	60.0	-	-	-	-	-	-	229	1.2	113	24	91
C. Equipment	323	77.0	10	2.3	87	20.7	-	-	-	-	-	-	419	2.2	377	33	10
D. Agri Inputs	-	-	-0	-	647	100.0	-	-	-	-	-	-	647	3.4	60	587	-
E. Matching grant	1,384	29.5	-0	-	1,270	27.1	1,090	23.3	120	2.6	821	17.5	4,685	24.8	-	4,685	-
F. Training & capacity building	1,304	26.9	32	0.7	3,065	63.2	270	5.6	-	-	180	3.7	4,851	25.7	917	3,902	32
G. Technical Assistance	610	20.2	497	16.5	1,911	63.3	-	-	-	-	-	-	3,018	16.0	2,712	306	-
<b>Total Investment Costs</b>	<b>5,031</b>	<b>29.5</b>	<b>909</b>	<b>5.3</b>	<b>8,137</b>	<b>47.8</b>	<b>1,360</b>	<b>8.0</b>	<b>120</b>	<b>0.7</b>	<b>1,472</b>	<b>8.6</b>	<b>17,029</b>	<b>90.3</b>	<b>4,973</b>	<b>11,644</b>	<b>412</b>
<b>II. Recurrent Costs</b>																	
A. Salary & allowances	-	-	230	34.2	443	65.8	-	-	-	-	-	-	673	3.6	-	673	-
B. Other operating costs	-	-	14	1.2	1,142	98.8	-	-	-	-	-	-	1,156	6.1	102	1,040	14
<b>Total Recurrent Costs</b>	<b>-</b>	<b>-</b>	<b>244</b>	<b>13.4</b>	<b>1,584</b>	<b>86.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,829</b>	<b>9.7</b>	<b>102</b>	<b>1,712</b>	<b>14</b>
<b>Total PROJECT COSTS</b>	<b>5,031</b>	<b>26.7</b>	<b>1,153</b>	<b>6.1</b>	<b>9,722</b>	<b>51.6</b>	<b>1,360</b>	<b>7.2</b>	<b>120</b>	<b>0.6</b>	<b>1,472</b>	<b>7.8</b>	<b>18,857</b>	<b>100.0</b>	<b>5,075</b>	<b>13,356</b>	<b>426</b>

**Cost table 8: Summary cost table –Component by year (total incl. contingencies)**

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**Project Components by Year -- Base Costs**

(US\$ '000)

	Base Cost							Total
	13/14	14/15	15/16	16/17	17/18	18/19	19/20	
1. Food and Nutrition Security & Pro-poor Market Access	1,104	1,515	1,524	487	496	393	-	5,517
2. Rural Finance	125	250	680	760	40	-	-	1,855
3. Institutional support	1,065	886	801	684	460	330	190	4,417
4. Strengthening of enabling environment for climate change adaption	-	-	364	299	346	140	130	1,277
5. Climate change adaption fund disbursed	-	-	407	955	1,436	1,246	-	4,043
6. Climate change component project management	-	-	250	134	126	126	126	762
<b>Total BASELINE COSTS</b>	<b>2,294</b>	<b>2,651</b>	<b>4,025</b>	<b>3,318</b>	<b>2,904</b>	<b>2,234</b>	<b>446</b>	<b>17,871</b>
Physical Contingencies	23	14	95	97	109	85	19	442
<b>Price Contingencies</b>								
<b>Inflation</b>								
Local	13	36	94	87	101	89	68	488
Foreign	4	2	10	13	16	6	6	56
<b>Subtotal Inflation</b>	<b>17</b>	<b>38</b>	<b>104</b>	<b>100</b>	<b>117</b>	<b>94</b>	<b>74</b>	<b>544</b>
Devaluation	-	-	-	-	-	-	-	-
Subtotal Price Contingencies	17	38	104	100	117	94	74	544
<b>Total PROJECT COSTS</b>	<b>2,334</b>	<b>2,702</b>	<b>4,224</b>	<b>3,516</b>	<b>3,129</b>	<b>2,413</b>	<b>539</b>	<b>18,857</b>
Taxes	149	76	88	30	38	38	7	426
Foreign Exchange	826	736	1,229	859	753	501	172	5,075

**Cost table 9: Summary cost table – Expenditure account by year (total incl. contingencies)**

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**Expenditure Accounts by Years -- Base Costs**

(US\$ '000)

	Base Cost						Foreign Exchange			
	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total	%	Amount
<b>I. Investment Costs</b>										
A. Civil works	240	480	680	400	600	600	-	3,000	25.0	750
B. Vehicles	226	-	-	-	-	-	-	226	49.7	112
C. Equipment	95	-	282	8	-	-	-	385	90.0	347
D. Agri Inputs	99	198	297	-	-	-	-	594	9.7	57
E. Matching grant	440	730	1,085	1,170	705	555	-	4,685	-	-
F. Training & capacity building	547	410	763	871	920	591	180	4,281	19.7	844
G. Technical Assistance	483	550	623	587	404	213	133	2,993	90.0	2,692
<b>Total Investment Costs</b>	<b>2,130</b>	<b>2,368</b>	<b>3,729</b>	<b>3,036</b>	<b>2,629</b>	<b>1,959</b>	<b>313</b>	<b>16,163</b>	<b>29.7</b>	<b>4,803</b>
<b>II. Recurrent Costs</b>										
A. Salary & allowances	46	90	100	97	94	94	32	552	-	-
B. Other operating costs	118	194	196	186	182	182	100	1,156	8.8	102
<b>Total Recurrent Costs</b>	<b>164</b>	<b>283</b>	<b>295</b>	<b>283</b>	<b>275</b>	<b>275</b>	<b>132</b>	<b>1,708</b>	<b>6.0</b>	<b>102</b>
<b>Total BASELINE COSTS</b>	<b>2,294</b>	<b>2,651</b>	<b>4,025</b>	<b>3,318</b>	<b>2,904</b>	<b>2,234</b>	<b>446</b>	<b>17,871</b>	<b>27.4</b>	<b>4,905</b>
Physical Contingencies	23	14	95	97	109	85	19	442	25.7	114
<b>Price Contingencies</b>										
<b>Inflation</b>										
Local	13	36	94	87	101	89	68	488	-	-
Foreign	4	2	10	13	16	6	6	56	100.0	56
<b>Subtotal Inflation</b>	<b>17</b>	<b>38</b>	<b>104</b>	<b>100</b>	<b>117</b>	<b>94</b>	<b>74</b>	<b>544</b>	<b>10.4</b>	<b>56</b>
Devaluation	-	-	-	-	-	-	-	-	-	-
Subtotal Price Contingencies	17	38	104	100	117	94	74	544	10.4	56
<b>Total PROJECT COSTS</b>	<b>2,334</b>	<b>2,702</b>	<b>4,224</b>	<b>3,516</b>	<b>3,129</b>	<b>2,413</b>	<b>539</b>	<b>18,857</b>	<b>26.9</b>	<b>5,075</b>
Taxes	149	76	88	30	38	38	7	426	-	-
Foreign Exchange	826	736	1,229	859	753	501	172	5,075	-	-



## Appendix 10: Economic and Financial Analysis

### FINANCIAL ANALYSIS

#### A. Objectives and Scope

1. The objectives of the financial analysis are to: (i) evaluate the viability of the range of investments proposed under the food and nutrition security, market linkages and small holder adaptation components; (ii) analyse the impact of these improvements on the poverty of adopting households, specifically on their income levels; and (iii) provide a basis for the economic analysis of the project. The financial analysis is based on prices and costs collected by the SACCC Final Design Mission in November 2014. The mission benefited from the data and crop models from the FNML.
2. The methodology employed involves (i) developing appropriate crop, agroforestry and technology models that are being focused under the programme, (ii) thereafter developing area and activity based models, (iii) allocating an expected area/activity distribution by year to those investments and aggregating them over the programme implementation period.

#### B. Assumptions

3. Key assumptions are:
  - For the purposes of assessing food and nutritional security investments an average size of farm-holding is taken as 1.16 ha.<sup>60</sup> For the purposes of farm models an average of 50% of operational area of a farm has been assumed, i.e 0.4 ha for coffee, cassava, maize and vegetables. For niche crop a farm area of 0.1 ha has been assumed.
  - For the purposes of farm models assessing small holder adaptation it is assumed that vulnerable families will have access to up to 0.3 ha for irrigated rice or vegetables and that villages will have access to up to 50 ha of degraded forest for CBFM activities.
  - The target group households like other rural households in the programme area primarily practice subsistence agriculture such as rain-fed rice with mixed cropping, cassava and maize in upland and, where irrigated land is available, grow lowland paddy rice on a limited scale. Nearly 91% of all agricultural farms are under rainfed conditions. Of the total lowland area nearly 77% area is put to lowland paddy<sup>61</sup>. Traditional technologies of cultivation are available for most of the agricultural produce, and the rural households have limited access to the new and emerging technologies.
  - Availability of family labour for any extended and expanded agricultural operations are limited. Households do not often hire labour for their farming operations except when establishing new plantation crops, while some large farmers hire labour for their coffee plantations. Agricultural machinery is rarely used but some of the lowland farmers use paddy harvesting machine for harvesting and threshing paddy at LAK 700,000 per hour. For farm operations, the households use animal drawn ploughs and implements and manual labour in upland area.
  - Farmers currently keep seeds and planting materials from their own harvests and do not often exchange good seeds with other farmers. The households carry forward sufficient seed to next season's crops, but these are often of poor quality. Availability of quality seed and seedlings remains an issue. With improved practices and extension support, crop productivity can be enhanced but without increasing any pressure on labour demand. The irrigation models assume purchased improved seed.

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<sup>60</sup> According to the district data, average size of farm holding ranges from 0.48 ha in Dakcheung, 0.67 ha in Xansay, 1.0 ha in Ta'Oy, 1.11 ha in Samoy and 3.25 ha in Phouvong.

<sup>61</sup> Agricultural Statistics Year Book 2006, Ministry of Agriculture, Lao PDR.

- With training, technology support and input services, the rural households are capable of undertaking improved farming practices and thereby enhancing productions at farm level. Soil health is poor and, therefore, there is a need for continued application of farm yard manure, composts and other organic manure and cultivation of green manure crops to restore the soil health to sustain productivity. There are opportunities for enhancing productivity by adopting inter-cropping and sequence cropping practices under rain-fed conditions, in particular for cassava and maize.
- In the current situation, all marketable surpluses are sold fresh to local traders or middlemen. Households produce little for marketing but they respond well to any emerging markets. Households and villages do not have any organised marketing structure or institutions but are willing to organise themselves in groups for receiving any technology packages and output marketing. With the proposed interventions, this situation improves substantially.
- There are significant difference between farm-gate prices and prices at nearby markets. These range between 25% and 40% depending upon the produce. The gap is more in case of perishable commodities such as vegetables.
- The target groups have limited access to institutional credit but with the FNML facilities, the target groups will have access to formal credit at affordable interest rates.
- Transport by head load is the common mode of transport within and between villages and also to nearby markets. On an average, notional cost of transportation from farm gate to the nearest market is estimated at LAK 6,500 per ton per km in the uplands and LAK 1,250/t/km in lowland area for any mechanised transport vehicles such as a pick up van.

### C. Modelling Approach

4. A range of crop and area models have been developed to analyse the impact of both the viability of the food and nutrition security and smallholder adaptation components of the ASAP FNML programme. For the purposes of this discussion the financial analysis of these two elements will be presented separately.

### D. Food and Nutritional Security Analysis

5. The crop models shown in Table 1 have been developed and used in the financial and economic analysis of the food and nutrition security and market access investments.

**Table 1 - Production models**

Production Models	Crop Model Size (ha)	Average surface size (ha)	# of participating farms
<b>Key Product Models</b>			
Cassava (Samoy and Ta'Oy districts)	1	0.4	3,700
Maize (Samoy, Ta'Oy and Phouvong districts)	1	0.4	3,700
Coffee Arabica (Dakcheung and Xansay district)	1	0.4	2,900
Vegetables (Phouvong and Xansay districts)	1	0.4	200
<b>Niche Product Models</b>			
Bong (Samoy, Ta'Oy, Xansay and Dakcheung districts)	1		
Cardamom (Samoy, Ta'Oy, Xansay and Dakcheung districts)	1		
Pepper (all upland districts)	1		
Ginger (All districts)	1		
Ginseng (Dakcheung, Xansay, Samoy and Ta'Oy districts)	1		
Moringa (All districts)	1		
<b>Home garden Models (All target households)</b>			
Home Garden (veg., sesame, moringa, ginger, gourd etc)	1	0.01	10,500

6. Using indicative crop models, farm models were prepared for key products and niche products using FARMOD software. These models broadly illustrate the programme's expected impact on the incomes, and labour use of households adopting and/or adapting both on-farm and non-farm technology options. The development is phased at 16% in year 2, 50% in year 3 and 100% in year 4.
7. **Key Product Models:** Key product models include cassava, maize, coffee and high value vegetables. These are briefly described below. The programme supports all models through capacity building, technical advisory services, marketing advice and one time working capital in the form of seeds and planting materials.<sup>62</sup>
8. **Cassava:** Average size of cassava farm model is 0.4 ha. The crop is inter-cropped with pulses and oilseeds such as soybean, groundnut and pigeon pea to enhance soil fertility and sustain agricultural production. In all 3,700 households participate under the programme operating some 1,480 ha. About 70% of cassava farms sell their produce as dry and the remaining 30% in fresh form. Cassava replaces either upland paddy or other crops.
9. **Maize:** Average size of maize farm model is 0.4 ha. Maize is also intercropped with pulses and oilseeds such as soybean, groundnut and pigeon pea to enhance soil fertility and sustain agricultural production. In all 3,000 households participate under the programme operating some 1,480 ha. Due to better on-farm processing and cleaning the producers obtain higher prices than at present. Maize replaces other upland crops.
10. **Coffee:** About 60% of area is covered under the programme, which will focus on existing plantations, improving productivity and quality. The coffee Arabica 236 ha in year 2, some 740 ha in year 3 and 1,480 ha in year 4 receive extension and other technical and marketing support. In all 2,900 households are covered. The producers use processing and organised marketing and thus realise higher profit margins than at present.
11. **Vegetables:** Important off-season, low volume and high value vegetables such as asparagus, baby corn, chilli, onion, cabbage, musk melon etc are assumed. These are produced where irrigation facilities are available. The production will adopt a cluster approach and for example a vegetable cluster may cover some 20 to 30 households. In all 10 villages are covered in phased manner during the programme period: 2 villages in year 2, 3 villages in year 3 and 5 villages in year 4. In all 200 households will operate about 100 ha area.
12. **Niche Product Models:** Crops included under niche products are: (i) pepper, (ii) cardamom, (iii) bong, (iv) ginger, (v) ginseng, (vi) moringa. Average farm size of 0.1 ha has been assumed. In all 1,050 ha area is targeted. Both increases in crop area and productivity are envisaged. Bong is widely cultivated as block plantation and also as border plants with upland rice. Moringa and domesticated NTFP such as cardamom, ginseng and pepper are new crops.
13. **Home Garden Models:** Each household has some 100 m<sup>2</sup> area where it takes up the cultivation of home garden vegetables and fruit trees for home consumption. For the purpose of analysis, the crop mix includes leafy vegetables on 30% of the area, moringa on 20% of the area, sesame on 20% area, gourd vegetables on 30%. In all 10,500 households participate in the programme in a phased manner: some 1,680 households in year 2, some 5,280 households in year 3 and all 10,500 households in year 4. The project support includes extension, training, one time working capital in the form of seeds and planting materials and some tools (in the form starter kits), market arrangement etc.
14. **Village water supply:** This is an activity model. Each of the selected village has a village water supply system and each system benefits some 60 households. These households save

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<sup>62</sup> Model details including cropping patterns, crop area, yields and inputs and financial incomes can be found in IFAD (2013), Southern Laos Food and Nutrition Security and Market Linkages Programme (FNML), Project Design Report, April 2013.

about 30 minutes of walking time in accessing distant water source each day and this implies that the stand pipe is closer to the house. In addition due to better quality water sickness is reduced by one week per year per worker. Thus the labour-days saved and health benefits respectively have been assumed in estimating the benefits from village water supply system. In all 50 systems are proposed.

15. **Subproject models** In all 5 subprojects (aggregate of farm models) models were developed as indicated in Table 3. All households participate in and benefit from one key product, one niche product and a home garden. Results of analysis of these subprojects in terms of household incomes, production costs, labour input and net incomes summarised in Table 2 below and described in detail in the 2013 FNML PDR.

**Table 2 - Summary results of Subproject Financial Models ('000 LAK per household)**

Subproject	# HH	Gross Income		Inputs		Family labour		Net Income	
		WOP	WP	WOP	WP	WOP	WP	WOP	WP
1 Cassava	3,700	1,442	7,524	76	1,193	2,048	2,387	-682	3,944
2 Maize	3,700	770	5,108	9	880	115	2,108	646	2,120
3 Coffee	2,900	5,679	14,080	42	2,914	2,589	5,231	3,048	5,935
4 Vegetable	200	10,770	17,525	725	1,365	2,270	2,840	7,775	13,320

With project (WP) is at full development; Net income excludes income from family labour  
 Each subproject comprises one main product, one niche product and one home garden unit

16. Aggregates of the 4 subprojects as described above constitute the project model for food and nutritional security components of the ASAP FNML. Summary results of farm models without combining incomes from niche crops and home gardens are presented in Table 3 below.

**Table 3 - Summary results of Farm Models ('000 LAK per household)**

Subproject	# HH	Gross Income		Inputs		Family labour		Net Income	
		WOP	WP	WOP	WP	WOP	WP	WOP	WP
1 Cassava	3,700	672	4,440	67	919	2,114	1,936	-1,509	1,585
2 Maize	3,700	-	2,025	-	606	-	1,654	-	-235
3 Coffee	2,900	4,909	10,997	34	2,640	2,473	4,317	2,403	3,580
4 Vegetable	200	10,000	14,440	716	1,077	2,156	2,384	7,128	10,978
5 Niche crops	10,500	770	2,697	9	236	116	401	646	2,060
6 Home gardens	10,500	-	387	-	38	-	-	-	296

With project (WP) is at full development; Net income excludes income from family labour

17. In case of maize, income from family labour is the net income.

#### **E. Smallholder Adaptation Analysis**

18. In order to analyse the smallholder climate change adaptation interventions the following crop and activity models have been developed and used in the financial and economic analysis. The total area covered for each model under the project is detailed in Table 4. Areas allocated per beneficiary household for the various production models include, 0.3 ha of irrigated land for paddy rice, or vegetable production, 0.5 ha of agro-forestry production, 0.2 ha of irrigated home garden and 0.1 ha of fish pond. Households will benefit from one or more of these investments dependent on CC vulnerability, community priorities and location. It is estimated that about 2,000 households will benefit from irrigated agriculture production, 2,500 from CBFM activities and 1,500 from investments in adaptation innovation. The number of beneficiaries by activity model is detailed in Table 5.



**Table 4 - Area and number of investments scheduled CC Adaptation Fund**

Model	Model Size (ha)	Invested area/number by year (ha/no.)							Total (ha/no.)
		PY1	PY2	PY3	PY4	PY5	PY6	PY7	Total
<b>Small scale water infrastructure</b>									
Vegetables - one crop	1	-	-	-	27	54	86	104	270
Paddy rice - one crop	1	-	-	-	33	66	105	127	330
<b>CBFM</b>									
Bamboo	1	-	-	-	60	90	100	0	250
Red Cardamom	1	-	-	-	165	248	275	0	688
Bamboo shoot	1	-	-	-	75	113	125	0	313
<b>On-farm innovation</b>									
Biogas	Each	-	-	-	40	50	60	0	150
Fuel efficient stove	Each	-	-	-	120	150	180	0	450
Fish pond production	1	-	-	-	24	30	36	0	90
Home gardens	1	-	-	-	12	15	18	0	45

CBFM – Community based forest management

**Table 5 - Estimated number of beneficiary vulnerable households by activity**

Activity	Area developed	Area allocated per vulnerable household (ha)	Number of beneficiary households
<b>Irrigated crops</b>			
Vegetables – one crop	270	0.3	900
Paddy rice – one crop	330	0.3	1,100
<b>Sub-total</b>	<b>600</b>		<b>2,000</b>
<b>CBFM</b>			
Bamboo	250	0.5	500
Red cardamom	688	0.5	1,375
Bamboo shoot	313	0.5	625
<b>Sub-total</b>	<b>1,250</b>		<b>2,500</b>
<b>Innovation</b>			
Biogas (each)	150		150
Fuel efficient stove (each)	450		450
Home garden (ha)	90	0.2	450
Fish pond (ha)	45	0.1	450
<b>Sub-total</b>			<b>1,500</b>
<b>Total</b>			<b>6,000</b>

19. Upland rainfed rice was used as the “without project” baseline for paddy rice and the CBFM investments as these are expected to replace upland rice farming systems. On-farm innovation activities were modelled as new investments with no “without project” scenario.
20. Key product models include paddy rice, irrigated field vegetables, cardamom, bamboo, bamboo shoots, fish aquaculture and home gardens. The two technical innovations are fuel efficient stoves and biogas production. The programme supports all models through investment grants, capacity building, technical advisory services, marketing advice and one time working capital in the form of seeds and planting materials. Farmers will benefit from more climate secure and

diverse income streams, improved returns to family labour and improved health from reduced smoke inhalation. A reduction in women's labour requirements will arise from the introduction of forestry activities, efficient cooking stoves and biogas while an increase will occur as a result of the change in the cropping pattern. The latter change will benefit women through higher returns per labour day, with the demand for women's labour also partially offset by new/adaptive technology (e.g. direct seeding of paddy rice, mechanised threshing) and the use of employed labour at times of peak labour demand. The SACCC will also have a positive impact on nutrition as a result of the availability of a wider range of food crops, improved productivity and capacity building of families, particularly of women.

21. The IRR and NPV over 20 years at a 10% discount rate for the various production models is detailed in Table 6 below.

**Table 6 – Financial NPV for SACCC production models**

Activity	NPV (USD)	IRR
<b>Irrigated crops</b>		
Vegetables – one crop	7,310	47%
Paddy rice – one crop	3,898	33%
<b>CBFM</b>		
Bamboo	21,062	32%
Red cardamom	7,047	51%
Bamboo shoot	5,171	39%
<b>Innovation</b>		
Biogas	5,704	3,763%
Fuel efficient stove	1,278	NA
Home garden	6,967	NA
Fish pond	3,194	16%

22. The incremental financial returns per year for the various smallholder adaptation production models have been aggregated on the basis of the quantities described in Table 4. A comparison of the incremental financial returns against the incremental financial costs of the adaptation component reveals a financial rate of return of 25% and an NPV of USD 6.6 million using a 10% discount rate applied over 20 years.

## **ECONOMIC ANALYSIS**

### **A. Objectives and Methodology**

23. The objective of the economic analysis is to evaluate the expected contribution of the proposed project to the economic development of the ASAP FNML districts. The purpose of such analysis is to determine whether the economic benefits sufficiently justify the use of the project resources. The analysis includes all incremental costs and incremental benefits that are quantifiable and associated with ASAP FNML investments.

### **B. Assumptions**

24. The following assumptions underlie the economic analysis of the programme.
- A twenty-year analysis period has been assumed, which includes a five-year project investment period.
  - Agricultural goods move freely within the project area in response to market signals.
  - All agricultural inputs and outputs that are traded are valued at farm gate prices although output prices vary significantly between programme districts and the nearby markets.

- Economic costs of the project investments are net of duties, taxes and price contingencies, credit, office rent, and grants. All costs directly associated with the incremental production are included in full, including incremental farm inputs and family labour.
  - A standard conversion factor (SCF) of 0.75 is applied to all output prices for adjusting financial prices. All inputs including seeds and seedlings an SCF of 1.0 is assumed. A shadow wage rate is assumed at 50% of financial wage rate of LAK 35,000 for family labour and LAK 45,000 for hired labour.
  - The analysis covers all on-farm benefits and including attributable benefits from extension services, technical support, access to market and benefits of market linkages, value-chain and village water systems.
  - All costs and all benefits are relating to investments made on targeted programme area households and the resultants benefit.
25. Time required for the “full development” is 8 years including infrastructure and farming system development, dissemination of information and technology transfer, and establishment of demonstrations for improved farming practices including changes at grassroots levels, etc.;

### **C Costs - Benefits Streams and Analysis**

26. **Investment and Recurrent Costs:** The incremental cost streams include all incremental on-farm investment and operating costs including the economic value of all the necessary incremental labour; and the project investment costs and excluding the cost of the input packages provided by the project, taxes and duties, risk fund, office rentals, ongoing government staff salaries, price contingencies, etc. The project economic costs were calculated from the financial project costs excluding price contingencies, taxes and duties. Economic prices for inputs and outputs were estimated by applying the conversion factors on the financial prices.
27. **Production benefits:** The farm production is a direct output from the crop and activity models described above. In the case of the food and nutritional security components it is assumed that the participating households as indicated in Table 3 will benefit. In the case of the small holder adaptation components it is assumed that about 6,000 households receive project support for one or more of the following products: paddy rice, irrigated field vegetables, bamboo, cardamom, bamboo shoots, aquaculture and home garden product development, together with fuel efficient stoves and biogas development. The benefits accrue from incremental production resulting from investments in water infrastructure and CBFM and in new technologies (efficient cooking stoves and biogas).
28. **Economic viability:** Two indicators have been used to assess the overall performance of the project. These are (i) economic internal rate of return (EIRR), and (ii) net present value (NPV). These were estimated using a 20 year incremental cash flow of benefit and cost streams. The overall ASAP FNML project EIRR is 28%. The estimated NPV at a 10% discount rate is LAK 142.1 billion (USD 17.77 million), indicating that the project investments are sound and robust.
29. 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. Table 7 presents the main identified risks that may affect the economic outcome of the Programme.

**Table 7 - 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	X	
	Reduced producer prices.	L/H	X		
	Reduced demand.	L/H	X		
Institutional Risks	Community infrastructure investments are not directed to areas of highest CC vulnerability.	M/M	X		
	Lack of effective inter-institutional cooperation & dialogue on development issues.	M/M		X	X
	Inadequate skills base amongst local service providers.	H/H	X		X
	Value chains are difficult to develop in CC vulnerable locations.	M/H	X		X
Climate Risks	Climate-change and disaster impacts.	M/H	X		X

30. An increase in programme costs by 10 percent will reduce the EIRR to 24 percent, while a decrease in overall programme benefits by 20% will result in an EIRR of 18 percent. A one-year delay in benefits reduces the EIRR to 20 percent and a two-year delay to 15 percent. The switching values show that the programme will remain economically viable if benefits decreased by 36 percent or programme costs increased by 57 percent. Table 8 below provides an overview of the various scenarios of the sensitivity analysis and indicates the economic viability of the programme

**Table 8 - Programme Economic Outcome and Sensitivity Analysis**

Scenario			EIRR
Base Case			28%
Changes			
Programme Costs	Incremental Benefits	Benefits delayed by	
+ 10%			24%
+ 20%			20%
	- 20%		18%
	- 40%		8%
+ 10%	- 10%		19%
+ 20%	- 20%		12%
Base Case		1 year	20%
		2 years	15%
		3 years	11%
Base case	- 20%	1 year	10%
		2 years	7%
		3 years	5%
Switching Values <sup>a</sup>			
Costs	+		57%
Benefits	-		36%

<sup>a</sup> Percent change in cost and/or benefit streams to obtain an EIRR of 10 percent, i.e., economic viability threshold.

31. **Family labour.** As the allocation of resources to activities such as irrigation, CBFM or CC innovation investments will be determined by village and household perceived needs, vulnerability level and location, it is difficult to model the impact of these investments on family

labour. This situation is aggravated by the limited analysis of farming systems, labour availability and gender-based labour roles in the project area. As an example Table 9 shows the returns to family labour and incremental labour requirements for existing and SACCC modelled crop and agro-forestry activities. For paddy rice and agro-forestry investments, the existing activity is upland rice, for field vegetables, the “without project” production level was used. Home gardens and fish production will be new investments for which no “without project” scenario was applied. A reduction in women’s labour requirements will arise from the introduction of forestry activities, efficient cooking stoves and biogas while an increase will occur as a result of the change in the cropping pattern. The latter change will benefit women through higher returns per labour day, with the demand for women’s labour also partially offset by adaptive technology (e.g. direct seeding of paddy rice, mechanised threshing) and the use of employed labour at times of peak labour demand.

**Table 9 - Returns to family labour and changes in labour demand**

Activity	Returns per family labour day (LAK/ha)		Family labour requirement (% change)
	Existing technology	New technology	
<b>Irrigated crops</b>			
Vegetables – one crop	54,612	117,012	-4%
Paddy rice – one crop	22,686	64,138	6%
Maize – one crop	37,117	68,719	11%
<b>CBFM</b>			
Bamboo	22,686	512,000	-83%
Red cardamom	22,686	271,429	-71%
Bamboo shoot	22,686	163,000	-59%
<b>Innovation</b>			
Home garden (ha)		146,024	
Fish pond (ha)		45,560	

#### D Livelihood Sample Models

32. In order to examine the impact of combined ASAP FNML programme interventions at the household level, three illustrative models have been developed that combine the interventions from both the food and nutrition and climate change adaptation technologies offered by the ASAP FNML programme. The configuration of these models is summarised in the Table 10 below.

**Table 10 – Illustrative Livelihood Models**

Model / Component	Crop / production model		Inputs	
	Without programme	With ASAP FNML	FNML	ASAP
<b>Model 1 - Upland Family - Home garden, cash crop, improved upland rice and fish production</b>				
<b>Home garden</b>	Existing vegetable home production (0.01 ha)	Improved home vegetable production (0.01 ha)	Extension and input support	Facilitation of and investment in CB small scale water infrastructure e.g. simple water diversion
<b>Vegetable cash crop</b>	(Not practiced)	Cabbage cash crop (0.16 ha)	Extension, inputs support and marketing	
<b>Rainfed upland rice</b>	Existing upland rice production (0.5 ha)	Improved upland rice production (0.5 ha)	Extension and input support	
<b>Pulse rotation crop</b>	(Not practiced)	Groundnut production as an upland rotation crop (0.5 ha)	Extension, inputs support and marketing	

Model / Component	Crop / production model		Inputs	
	Without programme	With ASAP FNML	FNML	ASAP
<b>Fish pond</b>	(Not practiced)	Fish production (150 m <sup>2</sup> )	Extension and input support	Water infrastructure as above plus support with initial capital and operating costs
<b>Model 2 - Upland Family - Home garden, cash crop, improved upland rice and forestry activity</b>				
<b>Home garden</b>	Existing home vegetable production (0.01 ha)	Improved home vegetable production (0.01 ha)	Extension and input support	Facilitation of and investment in CB small scale water infrastructure e.g. simple water diversion
<b>Vegetable cash crop</b>	(Not practiced)	Cabbage cash crop (0.16 ha)	Extension, inputs support and marketing	
<b>Rainfed upland rice</b>	Existing upland rice production (1.0 ha)	Improved upland rice production (1.0 ha)	Extension and input support	
<b>Pulse rotation crop</b>	(Not practiced)	Groundnut production as an upland rotation crop (1.0 ha)	Extension, inputs support and marketing	
<b>Forestry activity</b>	(Not practiced)	Red cardomon production introduced (0.5 ha)	Extension and input support	Facilitation of group development and planning as well as investment in CB forestry
<b>Model 3 - Remote "Lowland" Family - Home garden, cash crop, irrigated paddy and forestry activity</b>				
<b>Home garden</b>	Existing home vegetable production (0.01 ha)	Improved home vegetable production (0.01 ha)	Extension and input support	Facilitation of and investment in CB small scale water infrastructure
<b>Upland rice</b>	Existing upland rice production (1.0 ha)	(Discontinued)		
<b>Lowland irrigated paddy</b>	(Not practiced)	Lowland paddy introduced (0.5 ha)	Extension, inputs support and marketing	Water infrastruce as above.
<b>Forestry activities</b>	(Not practiced)	Bamboo production introduced with harvesting of shoots and stems (0.5 ha)	Extension and input support	Facilitation of group development and planning as well as investment in CB forestry

33. In addition to the estimating the production achieved and input needed, the labour requirements for each task in the annual production cycles were identified. The labour requirements were differentiated by gender and allow an initial examination of the impact of introduction of the ASAP FNML technologies on three illustrative households.
34. The results of the analysis in the form of three key indicators are shown in Table 11 below. The indicators are the incremental return per family-day of labour, the incremental net farm income achieved at full development above the incremental labour requirements by gender and by household.
35. The introduction of the ASAP and FNML technologies shows positive results across the three illustrative models by the measures shown above. The application of irrigation in Model 1 allows the inclusion of a vegetable cash crop as well as fish production. These outputs together with the new groundnut crop incorporated into the upland rice rotation bring a substantial increase in the net farm income and returns per family labour day. A household with these circumstances could expect value of net farm income rising from LAK 3 million to LAK 25 million when the existing situation is compared to that with the ASAP FNML technologies. The incremental return per family-day of labour would be expected to increase by a factor of three to around LAK

123,600. The additional farm income however is a result of additional farm labour inputs. Figure 1 below presents the estimated incremental labour inputs by gender over the calendar year. The incremental labour needs shown reflect the additional land preparation, planting activities and harvesting needs resulting from the adoption of the crops described above.<sup>63</sup> Overall there is a doubling of the labour inputs required.

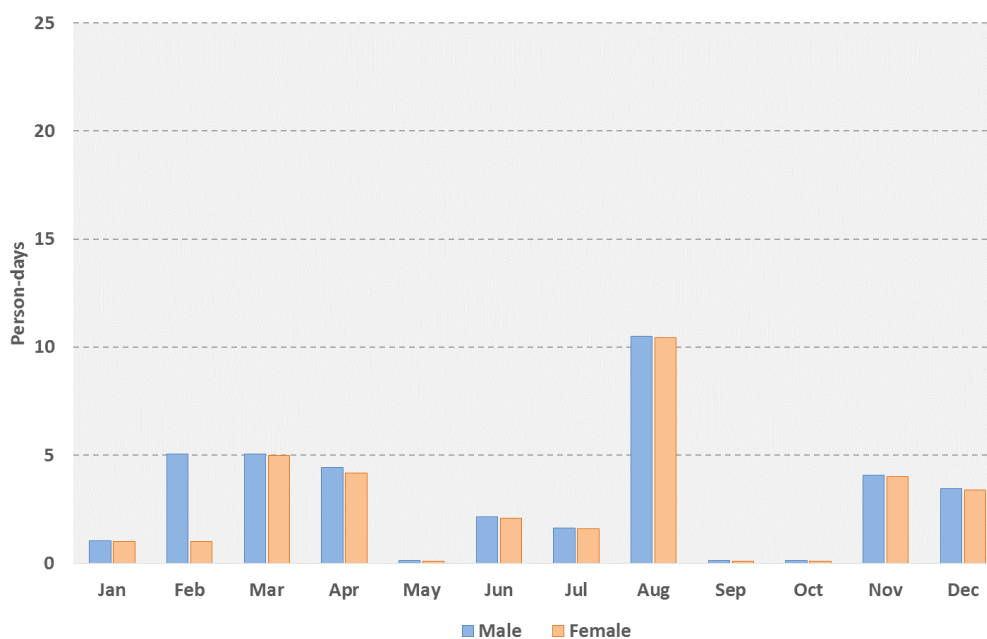
**Table 11 – Illustrative Livelihood Models – Key Indicators**

		Model 1	Model 2	Model 3
<b>Returns per Family-Day of Labour</b>				
Incremental return	LAK	123,581	62,611	147,463
	USD	15	8	18
	%	296%	236%	556%
<b>Farm net income</b>				
Annual incremental income	LAK	21,783,000	18,663,050	20,568,900
	USD	2,723	2,333	2,571
	%	731%	539%	594%
<b>Labour changes</b>				
Incremental male	person days	38	67	22
	%	92%	89%	30%
Incremental female	person days	33	58	6
	%	106%	105%	11%
Incremental household	person days	71	125	29
	%	98%	96%	22%

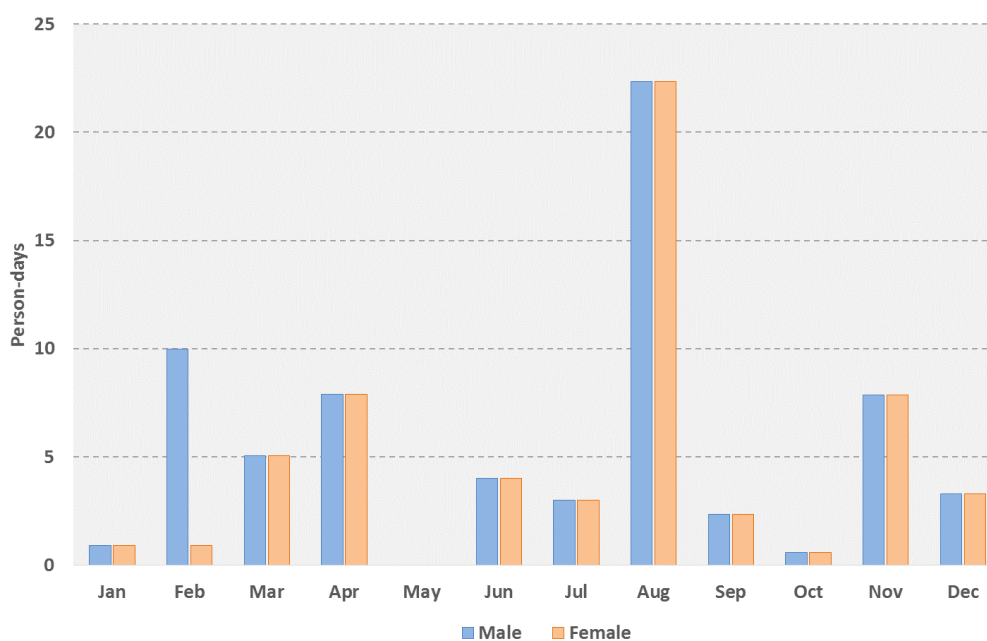
36. The second model involves a similar configuration to the first but with a red cardamom forestry activity instead of fish production as well as a larger area of upland rainfed rice in which a rotation with groundnuts is established. A household with these circumstances could expect value of net farm income rising from around LAK 3.5 million to LAK 22 million when the existing situation is compared to that with the ASAP FNML technologies. The incremental return per family-day of labour would be expected to increase by a factor of around 2.5 to approximately LAK 62,600. Figure 2 presents the estimated incremental labour inputs by gender over the calendar year. As with Model 1 the incremental labour needs reflect the additional land preparation, planting activities and harvesting needs resulting from the adoption of the crops described above. In this cast however the larger upland rice/groundnut area means that there is a peak in labour need for groundnut harvesting and drying in August. As is the case in the first model a doubling of the labour inputs required.

<sup>63</sup> Apart from the land clearing activities most of the other activities described in the generation of these labour budgets are shared more or less equally between male and females.

**Figure 1 – Incremental labour changes – Model 1**



**Figure 2 – Incremental labour changes – Model 2**

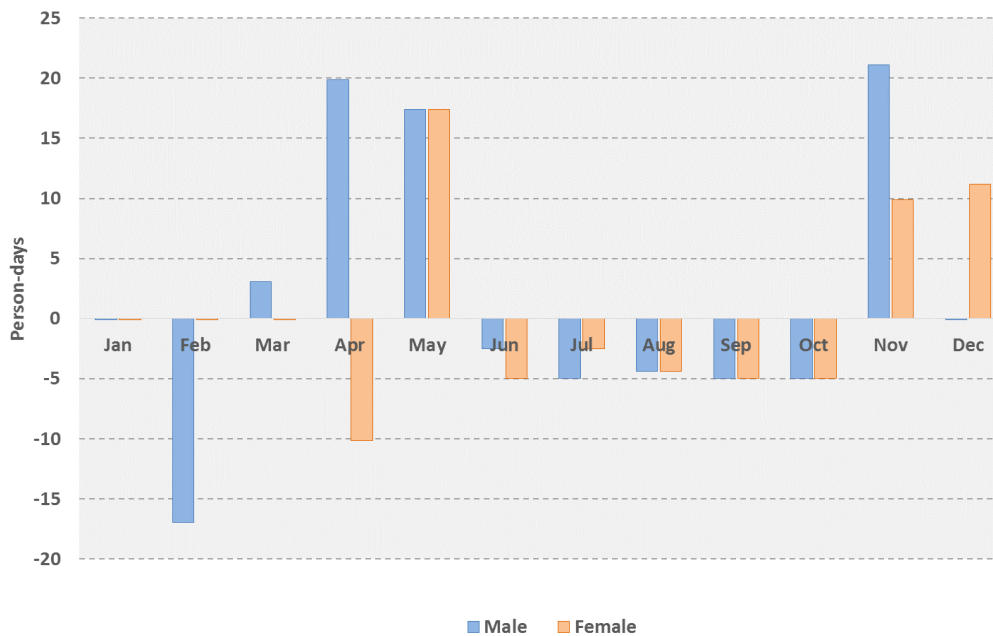


37. The third model involves the improvement of the home garden, the conversion from upland rice to lowland paddy and the introduction of bamboo cultivation under a community forest initiative. Such a household could expect value of net farm income rising from LAK 3.5 million to LAK 24 million when the existing situation is compared to that with the ASAP FNML technologies. The incremental return per family-day of labour would be expected to increase by a factor of five to around LAK 147,500. The the higher returns per family-day of labour is a result of a lower incremental labour requirement. As indicated in the table above the ASAP FNML supported farm model in this case requires only a 22 per cent increase in farm labour inputs. Figure 3



illustrates that in some months the household experiences net labour reductions. This is due to the reduction in the labour for upland rice compared to lowland irrigated rice. While the lowland irrigated rice requires concentrated labour inputs for nurse and planting activities in April and May respectively weeding activities are not required prior to the harvest and threshing/drying activities.

**Figure 3 – Incremental labour changes – Model 3**



38. A final aspect for consideration in this analysis is the impact of the incremental labour changes due to the ASAP FNML interventions on household labour availability. Due to a host of factors the availability can vary considerably between households. Nevertheless by applying some conservative estimates<sup>64</sup> and the using the labour requirement figures from the analysis outlined above an assessment was made of the proportion of available labour available that is utilised following the adoption ASAP FNML interventions described. The results are shown in Table 12 below.

<sup>64</sup> For the purposes of this analysis it has been assumed that a household comprises 1.5 male and 1.5 females. Monthly labour availability has been estimated using these figures, the number of days in a month and an availability factor of 60% and 40% for male and females respectively

**Table 11 – Household labour utilisation**

Month	Availability (person days)	Proportion of available labour utilised		
		Model 1	Model 2	Model 3
Jan	46.5	9%	8%	4%
Feb	42.0	43%	78%	14%
Mar	46.5	26%	26%	13%
Apr	45.0	52%	97%	85%
May	46.5	-	-	73%
Jun	45.0	20%	40%	6%
Jul	46.5	18%	34%	5%
Aug	46.5	56%	118%	4%
Sep	45.0	12%	33%	-
Oct	46.5	11%	24%	-
Nov	45.0	48%	89%	119%
Dec	46.5	21%	21%	29%

39. This analysis indicates that in general, the labour requirements are within the estimated monthly labour availability. Where requirements are in excess of available labour (e.g. November in Model 3 during the lowland paddy harvest) it is assumed that hired labour would be used and that it would be affordable due to the other income producing activities such bamboo stem and shoot production. The issue of labour impacts both in terms of the impact on women and the total household would benefit from more research.

## Tables

- A ASAP FNML Beneficiaries by component  
 B ASAP FNML Economic analysis

**Table A – ASAP FNML Beneficiaries by Component**

<b>PARTICIPATING HOUSEHOLDS</b>		<b>Year</b>						
<b>Component</b>	<b>Unit</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7 to 20</b>
<b>Food and nutritional security</b>								
Cassava farm	households	-	592	1,850	3,700	3,700	3,700	3,700
Maize farm	households	-	592	1,850	3,700	3,700	3,700	3,700
Coffee arabica farm	households	-	464	1,450	2,900	2,900	2,900	2,900
Home garden	households	-	1,680	5,250	10,500	10,500	10,500	10,500
Niche crops	households	-	1,680	5,250	10,500	10,500	10,500	10,500
Vegetable farm	households	-	32	100	200	200	200	200
Village water supply system	villages	-	10	30	50	50	50	50
<b>Climate change adaptation investments</b>								
<b>Small scale water infrastructure</b>								
Irrigated vegetable	households	-	-	-	90	270	557	900
Irrigated paddy	households	-	-	-	110	330	678	1,100
<b>Community based forest management</b>								
Bamboo stem production	households	-	-	-	120	300	500	500
Cardamon production	households	-	-	-	330	825	1,375	1,375
Bamboo shoot production	households	-	-	-	150	375	625	625
<b>On-farm innovation</b>								
Biogas units	households	-	-	-	40	90	150	150
Fuel efficient stoves	households	-	-	-	120	270	450	450
Home gardens	households	-	-	-	120	270	450	450
Fish ponds	households	-	-	-	120	270	450	450

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**Table B – ASAP FNML Economic Analysis**

ECONOMIC BUDGET (AGGREGATED) (In LAK Million)	April -- March																			
	Increments																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>Main Production</b>																				
Key Products: Annual	-	3,038	10,074	21,189	24,039	25,694	26,353	26,353	26,353	26,353	26,353	26,353	26,353	26,353	26,353	26,353	26,353	26,353	26,353	26,353
Key Products: Perennial	-	183	-2,606	-999	8,574	18,943	19,023	19,023	19,023	19,023	19,023	18,895	19,851	20,267	18,998	16,438	14,923	14,923	14,923	14,923
Home Garden	-	140	456	933	992	992	992	992	992	992	992	992	992	992	992	992	992	992	992	992
Niche Products	-	287	1,314	3,360	5,442	6,765	7,523	7,611	7,618	7,618	7,618	7,593	7,539	7,485	7,539	7,618	7,618	7,618	7,618	7,618
Water Supply Benefits	-	429	1,286	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144
SACCC Small Scale Water Infrastructure	-	-	-	-401	-661	-324	1,796	3,000	3,615	3,615	3,615	3,615	3,615	3,615	3,615	3,615	3,615	3,615	3,615	3,615
SACCC CB Forest Management	-	-	-	-	-	990	3,135	6,729	9,574	11,635	12,157	12,157	12,157	12,157	12,157	12,157	12,157	12,157	12,157	12,157
SACCC Innovation	-	-	-	437	984	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640	1,640
<b>Sub-total Main Production</b>	-	4,077	10,525	27,238	42,822	59,047	64,848	69,755	73,222	75,283	75,805	75,652	76,554	76,917	75,701	73,219	71,705	71,705	71,705	71,705
<b>Production Cost</b>																				
<b>Investment</b>																				
<b>Purchased Inputs</b>																				
Planting materials	-	547	1,655	3,260	3,111	3,136	3,143	3,119	3,119	3,119	3,119	3,128	3,138	3,147	3,119	3,119	3,119	3,119	3,119	3,119
Inputs	-	2,998	8,320	14,812	13,786	14,505	15,054	15,057	15,076	15,084	15,068	15,014	14,841	14,516	14,338	14,304	14,263	14,271	14,279	14,255
<b>Sub-Total Purchased Inputs</b>	-	3,544	9,975	18,073	16,897	17,641	18,197	18,176	18,195	18,203	18,186	18,142	17,979	17,663	17,457	17,423	17,381	17,390	17,398	17,374
<b>Labor</b>																				
Farm Labour	-	1,135	3,567	7,274	7,529	8,175	8,186	8,204	8,207	8,207	8,207	8,195	8,174	8,148	8,171	8,182	8,189	8,189	8,189	8,189
Hired labor	-	-	-	34	93	180	261	261	261	261	261	261	261	261	261	261	261	261	261	261
<b>Sub-Total Hired Labor</b>	-	1,135	3,567	7,308	7,622	8,355	8,447	8,465	8,468	8,468	8,468	8,456	8,435	8,409	8,432	8,443	8,450	8,450	8,450	8,450
<b>Sub-total Investment Costs</b>	-	4,679	13,542	25,381	24,520	25,996	26,644	26,642	26,663	26,671	26,655	26,598	26,413	26,072	25,889	25,866	25,831	25,840	25,848	25,824
<b>Operating</b>																				
<b>Purchased Inputs</b>																				
Planting materials	-	-	-	1,095	1,692	1,899	83	-	-	-	-	-	-	-	-	-	-	-	-	-
Inputs	-	-	-	-538	-1,426	-2,409	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492	-2,492
Fish production inputs	-	-	-	499	725	1,102	662	851	851	851	851	851	851	851	851	851	851	851	851	851
<b>Sub-Total Purchased Inputs</b>	-	-	-	1,629	1,974	1,858	-1,229	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122	-1,122
<b>Labor</b>																				
Farm Labour	-	-	-	368	728	1,077	843	902	968	968	968	968	968	968	968	968	968	968	968	968
Hired labor	-	-	-	1,102	1,700	1,952	169	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Sub-Total Hired Labor</b>	-	-	-	1,469	2,429	3,030	1,012	902	968	968	968	968	968	968	968	968	968	968	968	968
<b>Sub-total Operating Costs</b>	-	-	-	3,099	4,403	4,888	-217	-220	-154	-154	-154	-154	-154	-154	-154	-154	-154	-154	-154	-154
<b>Sub-Total Production Cost</b>	-	4,679	13,542	28,480	28,923	30,884	26,427	26,422	26,509	26,517	26,501	26,444	26,259	25,918	25,735	25,712	25,677	25,686	25,694	25,669
<b>Other Costs</b>																				
Net ASAP FNML Investment Costs	13,075	13,383	21,731	19,332	17,295	13,058	3,373	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>OUTFLOWS</b>	13,075	18,062	35,273	47,812	46,218	43,942	29,800	26,422	26,509	26,517	26,501	26,444	26,259	25,918	25,735	25,712	25,677	25,686	25,694	25,669
<b>Cash Flow</b>	-13,075	-13,985	-24,748	-20,574	-3,396	15,105	35,048	43,333	46,713	48,766	49,304	49,208	50,294	50,999	49,966	47,507	46,027	46,019	46,011	46,035

IRR = 27.7%, NPV = 142,147.25

## **Appendix 11: Draft SACCC implementation manual**

1. To be integrated into the FNML implementation manual and be prepared by the PRCO.



## Appendix 12: Compliance with IFAD policies

Policy	Strategic Objectives
IFAD Strategic Framework 2011-2015	<p>The FNML-SACCC is strongly aligned with the overall objectives of IFAD to "work for the rural poor to improve their food security, increase their incomes and strengthen their resilience." 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 2011-2015 and in particular to: (i) A natural resource and economic asset base for poor rural women and men that is more resilient to climate change, environmental degradation and market transformation; (ii) Access for poor rural women and men to services to reduce poverty, improve nutrition, raise incomes and build resilience in a changing environment. The program also contributes to objectives (iii) Poor rural women and men and their organizations able to influence policies and institutions that affect their livelihoods and; (iv) Enabling institutional and policy environments to support agricultural production and the full range of enterprise development and related non-farm activities. Key policy orientation includes natural resources – land, water, energy and biodiversity; CC adaptation and mitigation; improved agricultural technologies and effective production services; a range of inclusive financial services; integration of poor rural people within value chains; technical and vocational skills development.</p>
Lao PDR COSOP 2011 -2015	<p>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 minorities. 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 FNML-SACCC funding builds on the new Agriculture and Rural Development Strategy, the 7th National Socio-Economic Development Plan (NSED), the National Growth and Poverty Eradication Strategy (NGPES) and the completion evaluation of the Oudomxai Community Initiatives Support Project which is aligned with the Greater Mekong Subregion (GMS) strategy. The priorities of the additional FNML-SACCC funding are identified in the National Strategy on Climate Change, the Lao PDR National Adaptation Programme of Action, the Technology Needs Assessment, and contributes to implementation of the Lao PDR Renewable Energy Strategy.</p>
Environmental Natural Resource Management	<p>FNML-SACCC supports the primary and secondary objective of this policy by promoting sustainable production systems resilient to climate change. The program adheres to the following policy principles: (i) Increased investment in approaches providing multiple benefits for sustainable</p>

<b>Policy</b>	<b>Strategic Objectives</b>
(ENRM) Policy	<p>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; (iv) Improving access of poor rural communities in financing environmental protection and the fight against climate change. The additional ASAP grant supports pro-poor value chain development; with a greater emphasis on up-scaling pilots through local-level institutional and policy reforms.</p>
IFAD's Climate Change Strategy	<p>Overall, the response to climate change threats to agriculture is likely to result in greater support to NRM – such as land degradation programmes, water management and community-based forest management. Efficient irrigation systems, improved water management and harvesting, and sustainable use of groundwater are effective adaptation measures that will help build smallholder resilience. The additional funding assesses potential activities such as farmer group formation and empowerment, decentralized service delivery, access to renewable energy technologies, productivity improvement and market integration. 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:</p> <ul style="list-style-type: none"> <li>• Reducing emissions from livestock manure through balanced feeding, lowering the N content of the animal feeds, anaerobic digestion for methane production 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).</li> <li>• Renewable energy: accelerating the development of such renewable energy sources such as solar and wind as well as hydropower including micro-hydro, household-based, institution-based and/or community-based, especially for remote communities; (NSCC, 2010).</li> <li>• 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 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 organisations, as well as of extension staff (NAPA, 2009).</li> <li>• 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.</li> </ul>



<b>Policy</b>	<b>Strategic Objectives</b>
IFAD's Policy for Gender equality and Women's empowerment	FNML-SACCC 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. In so doing, it will adopt the household methodologies approach to enable more effective reach among poor households and to improve intra-household gender relations. It will strengthen the capacity of project partners (national, local and decentralized institutions, training centers, private sector providers, 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.
IFAD's Policy for indigenous people	The approach to the non Lao-Tai ethnic groups is consistent with IFAD's policy to ethnic people, although this is not a term that is used in Lao PDR. The target populations in the southern 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 extensionists speaking ethnic groups languages and in mobilizing and mentoring students from the ethnic schools.
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. FNML-SACCC will support the PLUP, being enacted in Lao PDR. 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 FNML-SACCC funding is aligned with the Knowledge Management strategy, especially 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. Southern Laos Food and Nutrition Security and Market Linkages Programme Final design Report
2. Laos ASAP Concept Note
3. Aide Memoire, First Design Mission
4. Aide Memoire, Second Design Mission
5. FNML-SACCC Detailed design report
6. CPMT minutes