IFAD
Investing in rural people

LAO PEOPLE'S DEMOCRATIC REPUBLIC

Strategic Support for Food Security and Nutrition Project

Final project design report

Main report and appendices

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Currency equivalents

Currency Unit	=	Lao LAK (LAK)
USD1.0	=	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
AWPB	Annual Work Plan and Budget
AFPRC	Agriculture and Forestry Policy Research Centre
CBAHW	Community-Based Animal Health Workers
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
DoIC	Department of Infrastructure and Construction
DoINC	Department of Information and Culture
DONRE	District Office of Natural Resources and Environment
DPI	Department of Planning and Investment (MAF)
DPSC	District Project Steering Committee
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
FFA	Food Assistance for Assets
FFS	Farmer Field School
FHH	Female Headed Households
FG	Farmers Groups
FNML	Southern Laos Food and Nutrition Security and Market Linkages Programme
FNS	Farmer Nutrition Schools
GALS	Gender Action Learning System
GAP	Gender Action Plan
GIS	Geographic Information System
GoL	Government of Lao Peoples Democratic Republic
HAP	Household Air Pollution
HACCP	Hazard Analysis and Critical Control Points
HH	Households
HNP	Health Governance and Nutrition Development Project
IEC	Information, communication and education
IPM	Integrated Pest Management
IRAS	Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts project
JICA	Japan International Cooperation Agency
KDP	Kum ban Development Plan
KM	Knowledge Management
KMT	Kum ban Management Team
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
LoCAL	Local Climate Adaptive Living Facility
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
MDG	Millennium Development Goals
MIS	Management Information System
MSC	Most Significant Change
NAFRI	National Agriculture and Forestry Research Institute
NMNC	National Multi-sectoral Nutrition Committee
NNSPA	National Nutrition Strategy to 2025 and Plan of Action 2016 – 2020
NPCO	National Project Coordination Office
NPSC	National Project Steering Committee
NTFP	Non-Timber Forest Products
PAFO	Province Agriculture and Forestry Office
PAR	Participatory Action Research
PCAP	Project for Enhancing Capacity for Managing the Public Investment Programme
PIM	Programme Implementation Manual
PLUP	Participatory Land Use Plan
PPP	Public-private Partnership
PPSC	Provincial Project Steering Committee
PY	Programme Year
OEBG	Operational Expenditure Block Grant
SDC	Swiss Development Cooperation
SNRMPEP	Sustainable Natural Resource Management & Productivity Enhancement Project
SNV	Netherlands Development Organisation
SPS	Sanitary and Phyto-sanitary Measures
SSFSNP	Strategic Support for Food Security and Nutrition Project
SWG-ARD	Sector Working Group on Agriculture and Rural Development
SSWGUp	Sub-sector Working Group on the Uplands
TSC	Technical Service Centre
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
VNWE	Village Nutrition and Women Empowerment
VRA	Vulnerability and Risk Assessment
VAT	Value Added Tax
VIT	Village Implementation Team
VC	Value Chain
VDP	Village Development Plan
WA	Withdrawal Application
WASH	Water, sanitation and health
WFP	World Food Programme

Map of the Project area

Lao People's Democratic Republic

Strategic Support for Food Security and Nutrition Project Map of the Project Area and Target Districts

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.

IFAD *Map compiled by IFAD* | 25-11-2015

Executive Summary[1]

1. **Background** The Government of the Lao People's Democratic Republic (GoL), with the support of its development partners, applied to the Global Agriculture and Food Security Program for USD 47 million in grant financing for a Strategic Support for Food Security and Nutrition Project (SSFSNP) under the GAFSP's third call for proposals. IFAD and the World Food Programme (WFP) were identified in the application as the investment and technical Supervising Entities respectively. The application seeks funding to implement elements of the GoL Agricultural Development Strategy (ADS) for 2011-2020, which aims for: (i) gradual introduction and increased application of efficient, market-oriented agricultural production, adapted to climate change and focused on smallholder farmers; and (ii) conservation of upland ecosystems, ensuring food security and improving the livelihoods of rural communities. The funding gap for the achievement of these outcomes is estimated at USD 580 million. The application was evaluated by the GAFSP Technical Advisory Committee, who recommended the award of USD 30 million, subject to the clarification of matters related to land tenure, agricultural advisory services and food and nutrition security policy. In its response to the GAFSP, the GoL noted that it is developing a National Nutrition Strategy to 2025 and Plan of Action 2016 – 2020 (NNSPA), the implementation of which would be overseen by the National Multi-sectoral Nutrition Committee (NMNC)[2]. The Plan of Action takes a "convergence" approach, combining 22 priority interventions from the agricultural, health, educational and WASH sectors, aimed at improving food security and reducing malnutrition through their implementation in the most vulnerable districts. The SSFSNP would be a lynch pin in the GoL's efforts to address the four agricultural elements of the aforementioned 22 priority interventions including (i) expanding and intensifying the production of nutritionally-rich plant-based foods; (ii) production and promotion of animal based protein for household consumption; (iii) improved post-harvest handling and food processing to strengthen year-round food security; and (iv) promotion of income generating activities, with focus on women.

2. **Rationale and Approach.** Under-nutrition and food insecurity remain stubbornly high in upland areas targeted by the National Nutrition Strategy to 2025 and Plan of Action 2016-2020 (NNSPA), with stunting levels of children under five years, as high as 61 per cent in some provinces, the impact of which is lifelong. Under-nutrition blights lives and undercuts social and economic development. Children who are chronically malnourished in the critical first thousand days, beginning at conception, can suffer irreversible damage to their physical and mental development. Improving women's nutrition is critical to breaking the intergenerational cycle of under-nutrition and, given the negative impact that chronic under nutrition has on health, productivity, educational attainment, and income-earning, its redress is essential to sustained national economic growth. Communities most prone to under-nutrition live in upland areas where the dominant household economic activities – agriculture and non-timber forest product (NTFP) extraction – are increasingly constrained by unsustainable farming practices and natural resource use, large-scale land concessions, and limited adaptation to climate change (CC).

3. Seventy percent of Lao workers are engaged in agriculture, making the sector an important part of Laos' development strategy. Boosting agricultural productivity is a top priority to raise farm incomes, lower the need for labour in the agricultural sector, and eventually free agricultural workers

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[2] PM Decree 31 July 2013

to move out of farming into more productive, higher-paying sectors with more growth prospects. Improving agriculture sector productivity, reducing its vulnerability to climate change, expanding private sector investment, and better targeting public investment, particularly for irrigation and technical support services, are central to improved agricultural productivity and growth. The Agriculture Development Strategy (ADS) and the NNSPA provide the strategic framework, while the "*sam sang*" approach, wherein the province is the strategic unit, the district the planning and budgetary unit, and the village the implementing unit, provides the institutional framework for accelerating sector growth. The GoL is also addressing weaknesses in development and planning and coordination, particularly concerning Official Development Assistance (ODA) resources, applying various mechanisms including sector working groups and a roundtable process to remove implementation bottlenecks, bring complementarities to the work of differing agencies and ensure that implementation is efficient.

4. Building off these recent developments, the Global Agriculture and Food Security Program (GAFSP) grant is designed to pilot new approaches and technology and scale up existing successful technologies and systems that, applying a convergence approach, will accelerate GoL achievement of national food security and improved nutrition. In pursuing this objective, the Project will place strong emphasis on building an enabling environment for sustainable market-led improvements in nutrition-rich and diverse agricultural production and productivity and rural employment and incomes through: (i) participatory, bottom-up village level public investment planning and implementation as well as the facilitation of convergence of NNSPA activities at District and village level; (ii) the empowerment of women to improve family diets in particular during the 1,000 day window; (iii) the development of farmers' organizations linking men and women farmers to markets; (iv) the application of an extension approach that shifts the extension worker role from 'solution giving' to that of process helper and resource linker in a system emphasizing decentralized farmer-to-farmer[3] and enterprise-to-farmer extension and participatory, result based M&E; and (v) support to private agri-business investment, seeking business models that (a) more clearly align with both development and growth objectives, (b) improve collaboration and communication between foreign direct investment (FDI) and ODA investments, and (c) achieve mutually beneficial outcomes for investors and farmers and farmer groups.

5. Project interventions will focus on the implementation of the four nutrition-sensitive agricultural activities within the 22 priority interventions under the NNSPA. The project will empower women to sustainably achieve better family nutrition outcomes, particularly for pregnant women and children up to the age of 5 years, through group implementation of the aforementioned NNSPA nutrition-sensitive agriculture interventions. In pursuing its agriculture outcomes, the Project will promote "green technology," for sustainable land management and climate adaptation, with all interventions having a neutral or positive ("no regrets[4]") effect on the ability of communities to adapt to climate change. A similar "no harm" principle applies to nutrition outcomes.

6. **Project area.** The Project will be implemented in 12 districts and approximately 400 villages in Oudomxai, Phongsaly, Xieng Khouang and Houaphan provinces in Northern Laos as detailed in the following table.

[3] Lao Extension Approach (LEA)

[4] A "no-regrets" approach is a proactive people and place oriented approach to building resilience to climate change that focuses on transforming, strengthening and protecting assets and livelihoods, including the provision of basic needs (including security), for all persons

Table 1: Project provinces and districts

Oudomxai	Phongsaly	Xieng Khouang	Houaphan
• Namor • Lah	• Mai • Boun-Tai • Samphan • Khua	• Kham • Nonghet	• Huamuang • Xam-Tai • Kuan • Xon

7. **Target population and expected benefits**: The main target group would be within the population of 400 SSFSNP target villages. Ethnic people[5] would represent the majority of the population in all SSFSNP districts[6]. These villages would be selected based on, *inter alia*, (i) kum ban poverty data as specified in Government's Decree #285/PM, specifically those related to poverty and stunting incidence and access to a road and water, sanitation and health (WASH) facilities; (ii) potential for agriculture-led growth including the agriculture and forest resource base, irrigation development potential and market access; (iii) commitment of kum ban and village leadership; (iv) an assessment of climate change vulnerability and availability of remedial solutions; and (v) opportunity for convergence through on-going or planned support projects. The SSFSNP would not work with villages which have been resettled in the last four years and/or which will be resettled in the next four years. The Project would allocate investment resources competitively based on benchmarked village performance. 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 Project services and benefits, the SSFSNP would adopt measures to increase women's participation and influence in community-based participatory planning including: (i) equal gender representation on the SSFSNP village development committee (ii) 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; (iii) 60% of approved activities must be a priority for women; and (iv) a weighted voting system that strengthens the voice of poor households. The Project would also adopt an age-stratified development approach including providing better diet for under 5 year olds (with a particular focus on mother and child nutrition in the 1,000 day period post-conception), employment for rural youth through rural infrastructure development under force account, the opportunity for farmers, particularly poor and women-headed households, to associate to produce and market nutrient-rich food, and the opportunity for others in this category to engage profitably in agri-business relationships. For all members of the rural community the project would offer the scope for more sustainable natural resource utilization and would strongly promote nutrition behavioral change with a focus on improving dietary diversity.

8. **Benefits**. It is estimated that the Project would include a minimum of 400 villages and 34,000 poor smallholder households. Assuming a 60% success rate, the SSFSNP would lift an estimated 21,000 households out of poverty[7] by Project-end. In Project Districts, villages and households not directly targeted by the SSFSNP would benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district. The SSFSNP would be implemented over a period of six years,

9. **Project Goal and Objective**. The Goal of the Project is: "*Contribute to reduced extreme poverty and malnutrition in poorest communities*." The Development Objective is: "*Improved and diversified agricultural production and household nutrition enhance life prospects*."

10. **Project Outcomes**. The Project will have three main outcomes; (i) Strengthened public services; (ii) Community-driven agriculture-based nutrition interventions established and (iii) Sustainable and inclusive market-driven partnerships established. There will also be a Project

[5] Namely non-Tai ethnic groups (including Mon-Khmer, Hmong-Hmien and Sinotibetan)
[6] Key characteristics of the Lao target ethnic groups are summarised in Appendix 1
[7] Each HH with a per capita income > USD 270 per annum. Prime Minister's Decree Ref.309/PM dated 14 Nov. 2013

Coordination outcome. These outcomes will establish the capacity in public sector agencies necessary to implement a community driven planning process consistent with *sam sang* principles, establish a foundation for widespread adoption of the four NNSPA agriculture interventions, and support the emergence of an efficient and profitable farming sector, producing at scale and effectively linked to agri-businesses adding value in-country.

Outcome 1: Strengthened public services. This outcome will have one output.

11. Output 1. Build government staff capacities and procedures and technical packages to support and converge community implementation of selected National Nutrition Strategy interventions. This output will include two activities.

12. *Activity 1: establish a tiered Project planning, supervision, monitoring, knowledge management and learning system within the Ministry of Agriculture and Forestry (MAF), supporting nutrition investment convergence strategies in target districts.* This output, led by the National Project Coordination Office (NPCO) under the MAF Department of Planning and Cooperation (DPC), will, building off multi-donor support to the strengthening of MAF planning and M&E systems: (i) establish a tiered Project planning, supervision, monitoring, knowledge management and learning system within MAF, together with coordination mechanisms for programme convergence on food security and nutrition investment; and (ii) based on the principles of "*sam sang",* build capacity of Project-targeted provincial and district administrations to plan, manage and monitor, multi-sectoral public investments in food security and nutrition identified through participative, bottom-up planning. All project staff would be trained on ethnic people self-driven development, culture and identity.

13. *Activity 2. Build GoL service provider (DAEC, TSCs and NAFRI) capacities to develop and deliver sustainable climate-adapted and nutrition-sensitive agriculture and natural resource management technologies and training programmes and monitor their impact*.

14. The Department of Agricultural Extension and Cooperative (DAEC), with Technical Service Centres (TSCs) and National Agriculture and Forestry Research Institute (NAFRI) support, will lead Project development and delivery of sustainable climate-adapted and nutrition sensitive agriculture and natural resource management technologies and training programmes. These initiatives would include:

- *Participatory action research*. The SSFSNP will contract NAFRI to implement a Participatory Action Research (PAR) programme in collaboration with project supported smallholder groups. The NAFRI will, in collaboration with farmer groups, identify technical and socio-economic constraints and opportunities for the field development of the four MAF-led initiatives under the NNSPA. 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 lightened. The NAFRI Agriculture and Forestry Policy Research Centre (AFPRC) will also evaluate climate adaptation technologies and approaches that show potential for scaling up. Particular attention will be paid to improving upland paddy rice productivity.
- *Forage development*. Many farming systems in the Project area mine soil nutrients, and cropped areas are prone to severe soil erosion. Forage inclusion in farming systems, particularly leguminous forages, is possibly the most cost-effective approach to reducing these negative impacts. To ensure quick impact and longer-term sustainability, forage programmes require an ample seed supply. The Project would initially focus on developing selected forages as a profitable seed crop, with the forage-based feed as a by-product. Using an approach of Project procurement of forage seed at competitive prices (but well below import cost) and free distribution of small quantities of seed to interested farmers, the Project will establish a demand for low labour input forage technologies that integrate into local farming systems, providing benefits in terms of animal nutrition, improved soil fertility and stability and reduced labour. The International Centre for Tropical Agriculture representation in Laos is interested in collaborating with this programme.

- *Technical* Service *Centre (TSC) development*. The DAFO TSC network is both under resourced and under motivated to service its smallholder farmer clients. Past attempts to support such centres have often not been sustainable. Based on clear farmer demand, the Project will provide up to LAK 80 million (USD 8,000) per kum ban to finance up to 3-year outcome-based contracts with TSCs to test and demonstrate innovative technologies on farmers' fields. The issuance of such grants will be subject to participating TSCs adopting a business plan that demonstrates a clear pathway to financial sustainability. The DAEC will guide TSC technology innovation and demonstration. On a case by case basis, the Project will also provide physical resources to TSCs (up to USD 18,000/TSC) where such investments will clearly improve TSC financial sustainability and extension outcomes.
- *Farmer-to-farmer* technology *transfer*. Where appropriate, the Project will establish Farmer Field Schools (FFS) to support DAEC/DAFO/TSC-led learning and technology transfer on key agriculture technologies and tools including farming as a business, group dynamics and management, IPM, food safety and product certification, animal health management, sustainable forest resource management, farmer seed banks, forage production, climate change adaptation, land use planning, integration of nutrition and gender considerations, etc. Experienced local NGOs could also be used for technology transfer, together with farmer-to-farmer and enterprise-to-farmer extension, which is expected to be an important learning mechanism within and between farmer groups/associations.

Outcome 2. Community-driven agriculture-based nutrition interventions established

15. This outcome will be supervised by the World Food Programme (WFP) under the GAFSP Technical Assistance (TA) grant. Under this outcome, the Project will support two outputs:
Output 2: Planning for improved nutritional outcomes, which will include two activities, namely (i) District multi-sectoral convergence planning; and (ii) Village development planning; and
Output 3: Women-led improvement in household nutrition, which also includes two activities, namely (i) Farmer nutrition schools; and (ii) Household availability and utilization of nutritious food. It is anticipated that progress in these areas will positively impact on nutrition outcomes.

Output 2. Planning for improved nutritional outcomes.

16. *Activity 1: District multi-sectoral convergence planning.* At district level, the SSFSNP will facilitate "planning for nutrition investment and service delivery convergence" to accelerate the implementation of the NNSPA, including the mapping of different stakeholders' programmes and infrastructure assets, with a view to identifying development gaps at village level and monitoring progress towards the NNSPA 10+4+4+4 outcomes. The SSFSNP will facilitate the joint work of relevant Districts Committees including the District Nutrition Committee, District Socio-Economic Development Committee, the District Rural Development Office (DRDO), District Planning and Investment Office (DPIO), District Health Office (DHO), DAFO and other GoL district line agencies, together with development partners and the private sector where appropriate. In addition to programmatic convergence, the Project would also support knowledge convergence, particularly concerning the implementation of the four NNSPA agriculture interventions. This would include annual progress review workshops for provincial and district officials, and, particularly, farmer-to-farmer knowledge exchange, both between SSFSNP-supported villages and between Project and non-project villages in Project districts.

17. *Activity2: Village development planning*. The Project will build the capacity of village stakeholders to lead the development process in their communities by investing in building communities' identification with their values, heritage, resources and traditional knowledge and strengthening their ability to collaborate, plan and act effectively. The preparation of village development plans (VDPs) will be supported by experienced community planning service providers, who, under performance based contracts, will be tasked with initiating a process whereby villagers prepare three-year, multi-sectoral nutrition-sensitive village development plans supporting the implementation of the NNSPA agricultural intervention and associated infrastructure requirements.

Service provider contracts will require the transfer of responsibility for VDP development to district administrations within 3-4 years. The VDP will be underpinned by an associated participatory land and forest use plan. The VDP will prioritise investments in (i) nutrition-sensitive village infrastructure (irrigation, multiple-use water supply, fish ponds, village roads, storage and market infrastructure, etc.); (ii) women's empowerment in agriculture for improved nutrition; and (iii) farmer-group development and linkage to markets. In exceptional cases where convergence funding for WASH facilities is not available and there is an expressed community need, WASH investments could be financed. The NPCO will periodically assess the planning processes to ensure beneficiary needs are being effectively met.

Output 3. Women-led improvement in household nutrition

18. This Output will promote women-led nutritional behaviour change and supporting investment in the NNSPA agricultural interventions addressing improved nutrient access and availability at household level.

19. *Activity 1: Farmer nutrition schools*. A social behavioural change communication (SBCC) programme jointly supported by SSFSNP and the World Bank-financed Health Governance and Nutrition Development Project (HGNDP), which will be implemented in all project villages in Houaphan, Phongsali, and Xiang Khouang provinces, will focus on encouraging nutrition-enhancing behaviour that maximizes the benefit of the Project co-financed investments in the four NNSPA agriculture interventions. Specifically, the Project will support the establishment of monthly village-level "farmer nutrition schools" (FNS). The FNS will aim to balance agricultural production, wild food collection and food purchase throughout all seasons of the year, thus enabling villages to increase access to and availability of food for improved dietary diversity from their village agro-biodiversity. FNS messages will also address food processing and preservation and will link with health sessions on WASH, infant and young child feeding (IYCF), in-door air pollution and maternal care and nutrition The FNS will target women, particularly women in the reproductive age (WRA), but also older women who influence cultural beliefs, particularly concerning food and other taboos related to pregnant women and infant children. FNS implementation will be coordinated by the local DHO with the support of the Lao Women's Union (LWU), DAFO and the village nutrition committee (or any other existing relevant committee, e.g. village health committee). All information, education and communication (IEC) materials and strategies used in this activity will, where possible, build on existing materials.

20. *Activity 2: Household availability and utilization of nutritious food*. Building off the VDP, LWU representatives, with DHO, DAFO and Project gender/nutrition expert support, will facilitate a FNS-led discussion with village women on opportunities to increase, diversify and seasonally improve household supply of nutritious food, particularly household vegetable and small livestock production ─ NNSPA intervention 15 "expanding and intensifying the production of nutritionally-rich plant-based foods"; and intervention 16. "production and promotion of animal-based protein for household consumption". Specifically, the Project will support:

(i). The production of vegetables/fruits containing fats, plant-iron and vitamins and crops with nutritional added value that could also be marketed. Project support will include (i) home garden starter kits and training packages based on villagers perceived needs (ii) nurseries and net houses to increase vegetable production during the rainy season; and (iii) enhanced green agriculture practices such as compost and green insecticides and herbicides. Women will be given the opportunity to choose between household or community-based gardens. Where possible, home and community garden establishment will be supported by the development of multi-purpose village water supply and micro-irrigated gardens.

(ii). The production of small livestock and aquaculture products for improved household protein supply. Project support will include (i) guidance on building animal housing and fish ponds, primarily using local materials; (ii) training in animal husbandry, including at least two women per village trained as community animal health workers; (iii) funds for local animal purchase, vaccination and parasite control; and (iv) seeds and guidance for forage production. The construction of secure animal housing would be a condition of support for livestock purchase.

Women would be encouraged to form groups to manage activities such as pig raising and aquaculture production.

21. Project investments supporting women-led household availability and utilization of nutritious food will be one hundred per cent grant financed, but beneficiaries would be required to have access to and usage of a toilet as a condition of entry. Women/women's groups will be eligible for grants of up to $120 per household/member. Groups could also invest in technology to improve post-harvest handling and food storage, processing and marketing, including drudgery-reducing technologies such as rice milling and the fermentation or drying of produce, or the introduction of energy saving cooking stoves. The DAEC/TSCs will provide technical support. Investments under both of these initiatives would be financed through the village development fund described in Outcome 4.

Outcome 3 – Sustainable and inclusive market-driven partnerships established

Output *4:* Profitable investment in nutrient-sensitive, climate adapted agriculture.

22. *Activity 1. Strategic Investment Planning*. The Project will identify commodities that have investment potential and which are in compliance with the provincial socio-economic development plans (SEDPs). The selected commodities will be chosen based on having strong potential for: Ii) the commercial production of nutritious food; (ii) export and/or import substitution; (iii) involving rural households to undertake investments and thereby expanding their production/income and creating incremental jobs; (iv) engaging and organizing poor farm households; and (v) climate change adaptation. For each selected commodity, a Strategic Investment Plan (SIP) will be prepared. The SIP study will also include a specific study on the feasibility of establishing a nutrient-rich child complementary food enterprise in Lao PDR[8]. The SIP will inform the VDP process and provide a framework for inviting farmers to form production groups and for and for inviting entrepreneurs to co-invest in the Project area.

23. *Activity 2: Village development fund (VDF).* Under this activity, the Project will co-finance VDP-identified community and farmer group investment in profitable and sustainable nutrient-sensitive agriculture infrastructure and production. VDFs will be aggregated at kum ban level to create Kum Ban Development Plans (KDP) that will be brought up to the district level for district administration no objection.

(i) Nutrition-sensitive agriculture Infrastructure. Under this activity, nutrition-sensitive agriculture production infrastructure, identified in the Kum Ban Development Plan (KDP0, will be established through co-financed public infrastructure investment grants of between LAK 160 million (USD 20,000) and LAK 320 million (USD 40,000) per village, dependent on village population. Irrigation will be a particular investment focus. The rehabilitation of existing village infrastructure will be given priority over new investments. A negative investment list will guide community choices. The implementation of the grant by the Village Implementation Teams (VIT) will be consistent with international best practice community-driven development (CDD) procedures and IFAD safe guards as detailed in the PIM (See Appendix 4, Annex 1, Section E for details). Beneficiary contribution of total construction costs of public good infrastructure works will be at least 15% (in-kind), with the Project funding 70% and Government funding the remaining 15 per cent. In-kind contributions will primarily be labour and construction materials. Cross-village public infrastructure investments at kum ban level could be proposed as part of the planning process (e.g. joint access road). The Project will, where practicable, use community force account processes for community infrastructure investments, designed to create jobs for village youth and promote community ownership in its operation and maintenance. All major construction contracts will be supervised by an independent engineer. Where possible, the Project will partner with WFPs "Food for Assets" programme and with the Poverty Reduction Fund (PRF) II in developing rural infrastructure.

(ii) Productive farmers' organizations. To improve agriculture production and productivity, household nutrition and climate adaptation, the Project will support farmer groups/associations

[8] This would be conducted in collaboration with other partners (e.g. the Clinton Health Action Initiative (CHAI) or GRET, which have successfully supported the establishment of such food companies in other countries)

to: (i) establish innovative, sustainable, climate adapted, nutrient-rich food crop, animal protein production; (ii) to sustainably manage natural resources, including community-based forest management; and (iii) through post-harvest storage, processing and marketing facilities at village level. The project will encourage farmer group investment in the most profitable commodities for their location, with a view to achieving greater market power through higher volume production. The Project will, on a competitive basis, co-finance up to 75 per cent 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) and not more than LAK 24,000 (USD 3,000) per group. Beneficiary co-financing will be through in-kind contributions. Project-supported farmer groups must, in aggregate at kum ban development plan level, include at least 50 per cent female members, while individual groups must include at least 30%t of members from community-identified poor households [9]. All supported investments must demonstrate financial sustainability beyond the initial Project assistance. Up to 25% of the Project grant could be used by beneficiary groups to contract technical support under performance-based contracts. The MAF DAEC is expected to provide a guiding role in the delivery of technical services. The Farmer's Union will coordinate farmer-to-farmer extension.

24. In the absence of an effective cooperative law, new farmer cooperatives are not expected to form during the first 2-3 years of Project implementation. Subsequently, when the law is in place, famers engaged in profitable commodity production under Output 4, activity 2 will be encouraged to associate at kum ban or district level with a view to gaining competitive advantage. Grants of up to LAK 80 million (USD 10,000) will be available on a co-financing basis to assist farmer groups to organise collective enterprises covering, amongst others, input supply and product aggregation, storage, processing, marketing, branding etc. The cooperative will be expected to contribute a matching amount to the Project grant, including at least 30% in cash or loan. The DAEC will play a leading role in cooperative development.

Output 5. Linking Farmers to markets.

25. *Activity 1. Contract farming review*. The Project, with MAF-DAEC and the Ministry of Planning and Investment (MPI) support, will review the current contract farming programme and propose adjustments to government legislation, regulations and implementation procedures underpinning contract farming agreements with a view to establishing fairer, more equitable and more productive agreements and programmes, benefiting farmer and investor alike. This will include technical assistance in support of: (i) improved contract farming policy, regulatory framework and contractual proceedings; (ii) the preparation of training material and training of District staff and farmer groups to strengthen their contract negotiation skills, and (iii) under Activity 2 below, assistance to contract farming investors to link with Project-supported farmer groups.

26. *Activity 2. Public-private Partnership (PPP)*. Building off the SIP analysis and associated farmer group investment priorities, the Project will pilot the use of PPP funding to promote investments and job opportunities among rural enterprises and households, with particular attention to poor and women-headed households in the Project area. SSFSNP will catalyse private sector agro-enterprise and contract farming investments in the project area by co-financing up to 49% of investments that generate incremental markets and value addition for raw material, leading to incremental production and increased income and job opportunities among rural households. Applications with higher levels of own contribution will be assessed as more competitive. Impact on poor people's income and jobs, value added products, and productivity and market access and gender equality will be important criteria in investment proposal evaluation, together with commercial viability, environment impact and cost effectiveness assessments. The PPP programme will be underpinned by a technical, business management, accounting and Information Communication Technology (ICT) capacity building program for successful applicants.

[9] Project experience in Lao PDR shows that, dependent on activity and community, some farmer group activities may be most successful if implemented through gender disaggregated groups. The project would therefore require a gender balance at the level of the KDP, rather than within individual groups, but each group, irrespective of its gender mix, would require 30% participation by community-identified poor households.

27. Co-financing for contract farming investments will start at LAK 160 million (USD 20,000) as a minimum and reach up to LAK 400 million (USD 50,000) as the maximum. The beneficiary of such a grant will be expected to match the PPP grant with an equivalent amount in cash. The PPP fund will be managed by a competent and experienced contracted service provider with funds allocated through transparent and fair processes with disbursement tranches monitored closely and grants systematically audited. This Output will be reviewed at Project mid-term and scaled up if positively assessed.

28. **Project Coordination**. A NPCO will be established within the MAF Department of Planning and Cooperation (DPC). The Office will be led by a National Project Coordinator and include Project-financed financial and procurement management and monitoring and evaluation/knowledge management (M&E&KM) staff. Technical support will be provided by the DAEC, strengthened by a Project-appointed Chief Technical Advisor (int.) and national experts in gender, nutrition and agribusiness development, The Province Agriculture and Forestry Office (PAFO) assigned staff member will be the Project focal point at provincial level, supported by a Project appointed national M&E&KM specialist. The DAFO assigned staff member will be the Project focal point at district level, supported by a project recruited accountant. At district level, the Project will apply a multi-sectoral approach, collaborating with, *inter alia,* the DHO, the District Industry and Commerce Office (DICO), the District Planning and Investment Office (DPIO), the District Education and Sports Office (DESO), and the District Information and Culture office (DINCO). Following the practice of *sam sang* district development, PAFOs will be provided with funds to cover the cost of the short/medium-term transfer of national experts to build capacity for provincial-level Project implementation. Districts will be similarly resourced to draw down provincial support staff. The Project will collaborate with the Luang Prabang Upland Agricultural College on staff and farmer training.

29. **Project costs**. Total Project costs are estimated at USD 38.8 million. GAFSP funding will total USD 30 million (77.4%). The GoL contribution is estimated at USD 5.4 million (13.9%), private sector contribution is estimated at USD 0.5 million (1.1%) and beneficiary contribution at USD 2.9 million (7.5%).

30. **EIRR and NPV**. The overall SSFSNP project Economic Internal Rate of Return (EIRR) is 8.7 per cent. The estimated Net Present Value (NPV) at a 6 per cent discount rate is LAK 481,220,000 million (USD 60.153 million). The Benefit-Cost Ratio (BCR) of 2.92 indicates a return of approximately 3 dollars for every dollar invested. These results indicate that the project investments yield a positive rate of return.

EFA Summary Page

Table A - Illustrative Model Cash Flow

Project Year	Upland Illustrative Model (LAK'000)			Valley Bottom Illustrative Model (LAK'000)		
	WOP \1	WP	Incremental	WOP	WP	Incremental
PY1	3,041	11,384	8,344	3,452	4,203	751
PY2	3,041	11,155	8,114	2,852	3,933	1,081
PY3	3,041	21,282	18,242	2,252	10,395	8,143
PY4	3,041	22,133	19,092	3,452	13,226	9,774
PY5	3,041	21,714	18,673	2,852	12,694	9,842
PY6	3,041	23,172	20,131	2,252	14,882	12,630
PY7	3,041	22,814	19,774	3,452	14,882	11,430
PY8	3,041	22,439	19,398	2,852	13,187	10,335
PY9	3,041	23,004	19,963	2,252	14,882	12,630
PY10	3,041	23,004	19,963	3,452	14,882	11,430
NPV @ 10%			146,104			74,972

Table B - Project Cost and Indicators for Log Frame

Total Project Total Costs (USD m): **38.78**		Base costs: 36.67	PMU 1
Beneficiaries \1	People **136,680**	Households 20,400	Villages 400
Cost per beneficiary	USD **284** x person	USD **1,900** x HH	**Participation rate: 60%**

Components and Cost (USD M)		Outcomes and Indicators	
Build government staff capacities and procedures and technical packages to support and converge community implementation of selected National Nutrition Strategy interventions	5.07	30 technical service centres operating profitably using outcome-based farmer contracts. 10 sustainable climate-adapted and nutrition-sensitive agriculture and natural resource management technologies adopted by more than 10,000 farmers (disaggregated by gender)	Districts have guidelines and tools for participatory nutrition-sensitive, market-led agriculture and rural development planning and implementation At least 70% rural household satisfaction with farmer-level technical information services (gender, age ethnic and poverty disaggregated).
Community-driven nutrition-sensitive agriculture interventions established	5.44	300 participatory village investment plans approved and financed. At least 21,000 households achieve a household dietary diversity score of at least 75 per cent of the HDDS of the top income tercile in their kum ban (disaggregated by ethnicity).	34,000 beneficiary households participate in VDP preparation (disaggregated by gender and ethnicity of HH-head) 28,000 women in project area of 15-49 years of age, consume at least 5 out of 10 defined food groups daily (disaggregated by ethnicity);
Sustainable and inclusive market-driven partnerships established	22.60	25 agricultural cooperatives or community-based agro-enterprises profitably established 10,000 farmers with new land use rights recorded (disaggregated by gender) in a manner recognized by national or customary law	2,000 hectares of new irrigated land established 8,000 ha of upland agricultural land farmed sustainably under contract.

\1 Assumes 85 households per village (Consultant) and 6.7 persons per rural household (National Population census 2005), 60% adoption rate

Table C – Financial Analysis Main Assumptions

Financial Parameters (selected)				
Outputs	Av. Yield Increase	Price (LAK/kg)	**Inputs**	Price (LAK)
Upland rice	125%	1,600	NPK fertiliser (kg)	5,600
Lowland rice	100%	2,500	Plant protection chemicals (litre)	75,000
Maize	40%	1,200	Improved maize seeds (kg)	2,000
Home garden	100%	5,000	Improved paddy seed (kg)	7,000
Pigs	81%	36,500	Improved vegetable seed (kg)	200,000

Table D - Beneficiaries, Adoption Rates and Phasing

	PY 1	**PY 2**	**PY 3**	**PY 4**	**PY 5**	**PY 6**
Villages						
Incremental	40	80	120	160	-	-
Cumulative	40	120	240	400	400	400
Participating households \1						
Incremental	2,040	4,080	6,120	8,160	-	-
Cumulative	2,040	6,120	12,240	20,400	20,400	20,400
Beneficiaries \2						
Incremental	13,668	27,336	41,004	54,672	-	-
Cumulative	13,668	41,004	82,008	136,680	136,680	136,680

\1 Assuming 85 households per village and 60% adoption
\2 Assuming 6.7 persons per household

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

Project Years (Selected)	**Avoided health care costs**	**Incremental income**	**Total incremental benefits**	**Total incremental costs**	**Cash flow**
PY 1	-	-	0	5,207	(5,207)
PY 2	0	-	0	6,838	(6,838)
PY 3	0	-	1	8,994	(8,993)
PY 4	1	-	1	12,046	(12,044)
PY 5	2	-	3	2,616	(2,614)
PY 6	4	-	5	1,888	(1,883)
PY 7	7	-	8	-	8
PY 8	11	-	11	-	11
PY 9	15	-	15	-	15
PY 10	20	-	20	-	20
PY 15	54	-	58	-	58
PY 20	94	426	564	-	564
PY 25	131	2,802	2,983	-	2,983
PY 30	165	7,962	8,186	-	8,186
PY 35	197	14,983	15,247	-	15,247
PY 40	227	23,614	23,919	-	23,919

The economic analysis compares the project costs in economic terms to the incremental life time earnings and avoided health care cost resulting from the reduction in stunting due to behavioural change described in the project's outcomes.

ENPV @ 6%	USD '000	60,153
ENPV @ 6%	LAK million	481,220,000
EIRR	%	8.7%
BCR	ratio	2.92

Graph F - Project Economic Cash Flow

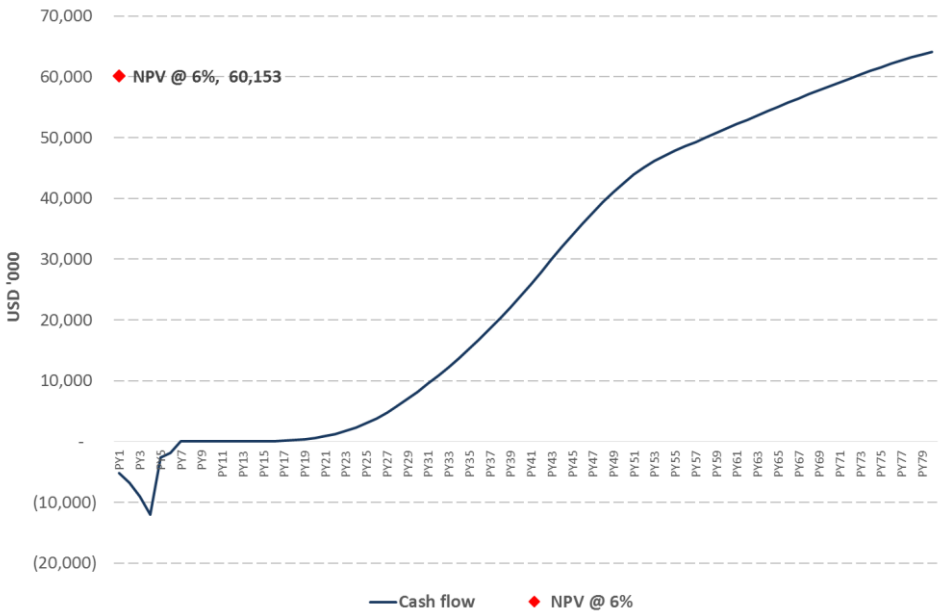
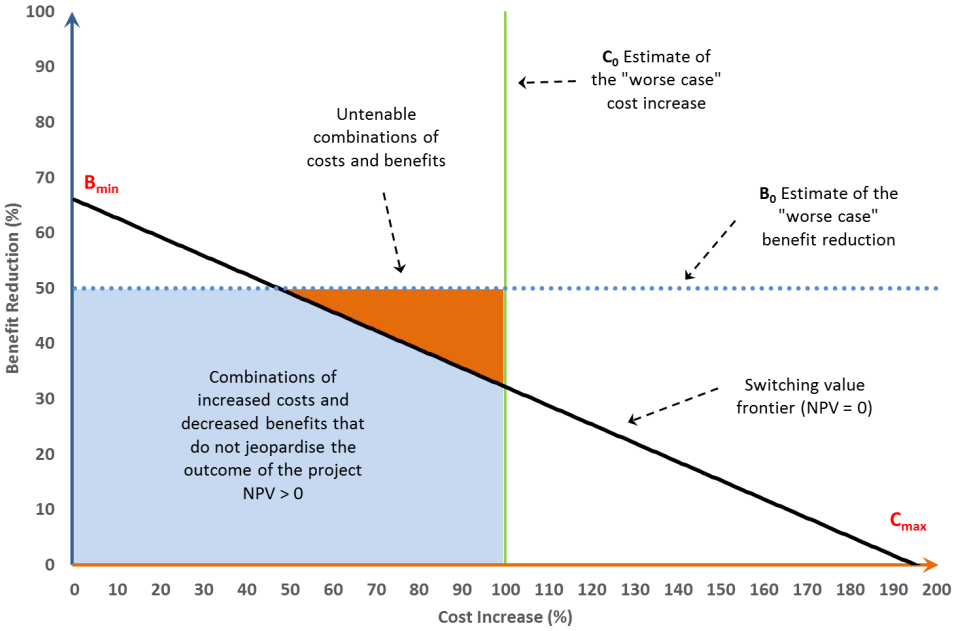


Table G - Sensitivity Analysis

Scenario			Link to Risk Matrix	EIRR	ENPV (USD '000)
Base Case				8.7%	60,153
Δ% to Base Case					
Project Costs	**Incr'l Benefits**	**Benefits delayed by**			
+ 10%			Increase in the cost of inputs.	8.4%	57,015
+ 20%				8.2%	53,877
	- 20%		Reduced producer prices / demand.	8.1%	41,846
	- 40%		Community infrastructure investments are not directed to areas of highest nutritional vulnerability. Technical coordination is not responsive to the grassroots level needs.	7.3%	23,540
+ 10%	- 10%		Combinations of the above	8.1%	47,862
+ 20%	- 20%			7.6%	35,571
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation	8.4%	54,400
		2 years		8.2%	48,976
		3 years		8.0%	43,864
Base case	- 20%	1 year	Inadequate skills base amongst local service providers leads to delays and additional costs.	7.6%	34,106
		2 years	Contract farming and cooperative laws do not eventuate leading to inequitable treatment and reduced incentives for farmer groups/ associations and cooperatives.	7.4%	29,768
		3 years		7.3%	25,678
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	7.2%	26,630
Switching Values \1					
Costs		**192%**		6.0%	-
Benefits		**-66%**		6.0%	-

\1 Percent change in cost and/or benefit streams to obtain an EIRR of 6 percent, i.e., economic viability threshold.

Figure H – Switching Value Frontier



Source: SSFSNP Economic Model

Logical Framework

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	**Baseline**	**YR1**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**	
Goal: Contribute to reduced extreme poverty and malnutrition	▪ incidence of child malnutrition (height for age) amongst two-year old children in Project villages, reduced from 60%[10] at present to 50% by project completion (disaggregated by gender and ethnicity).	0	0	3%	10%	RIMS surveys UNICEF, Multiple Indicator Cluster Surveys **(**MICS**).** GoL statistics	Project start, mid-term and end-project	Project management	▪
Development Objective: Improved and diversified climate resilient agricultural production and household nutrition enhance life prospects. (inflation adjusted and disaggregated by gender and ethnicity)	▪ 21,000 HH out of poverty by increasing per capita income from the current level to more than $270/yr. [11]) by Project-end (inflation adjusted and disaggregated by gender and ethnicity)	0	0	8,000	21,000	RIMS surveys; LECS Surveys	Project start, mid-term and end-project	Project management	▪ Continued government commitment to multi-sectoral approaches to improved food security and nutrition;
	▪ At least 21,000 households with improved food security (measured as a HFIAS[12] score of 7.0 or lower (disaggregated by gender and ethnicity).	0	0	8,000	21,000	RIMS surveys UNICEF MICS	Project start, mid-term and end-project	Project management	▪ Resource access and land security of poor communities is supported and expanded.

[10] Current level of stunting to be confirmed through Project baseline survey
[11] Prime Minister's Decree Ref.309/PM dated 14 Nov. 2013
[12] Household Food Insecurity Access Scale (HFIAS), (http://www.fao.org/fileadmin/user_upload/eufao-fsi4dm/doc-training/hfias.pdf)

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	**Baseline**	**YR1**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**	
Outcome 1: Strengthened public services	▪ 30 technical service centres operating sustainably using outcome-based farmer contracts.	0	2	15	30	Project M&E records and annual surveys; PAR reports	Annual	Project management DAEC	▪ Close DAEC, NAFRI and TSC collaboration for technology testing and dissemination; ▪ Comprehensive mapping and use of proven/tested tools within country and Asian region ▪ TSC's incentivised to operate sustainably ▪ Programme financing is disbursed in time to support field implementation.
	▪ 10 sustainable climate-adapted and nutrition-sensitive agriculture and natural resource management technologies adopted by more than 10,000 farmers (disaggregated by gender and ethnic group)	0	1	4	10	Project M&E records and annual surveys; PAR reports	Annual	Project management DAEC	
Output 1 Build government staff capacities and procedures and technical packages to support and converge community implementation of selected National	▪ 12 districts have guidelines, tools and core competencies for participatory nutrition-sensitive, climate-adapted market-led agriculture and rural development planning and implementation	0	Partial	Yes	Yes	Project M&E records	Annual	Project management Service Provider	▪ Technical coordination is responsive to the grassroots level needs. ▪ Effective mobilization of service providers and experts

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	**Baseline**	**YR1**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**	
Nutrition Strategy interventions	▪ At least 70% rural household satisfaction with farmer-level technical information services (gender, age ethnic and poverty disaggregated).	0	0%	50%	70%	Project M&E records and periodic surveys	Annual	Project management DAEC	within govt. and non-state actors
Outcome 2: Community-driven agriculture-based nutrition interventions established	▪ 300 participatory village investment plans show return on investment > 8%.	0	0	100	300	Project M&E records and annual surveys	Annual	Project management; Service provider	▪ VDPs are prepared and implemented at field level; ▪ Service providers successfully transfer participatory development skills to district administrations ▪ Programme financing is disbursed in time to support field implementation; ▪ Convergence with other programmes and nutrition initiatives;
	▪ At least 21,000 households achieve a household dietary diversity score of at least 75 per cent of the HDDS of the top income tercile in their kum ban (disaggregated by ethnicity).	0	1,000	10,000	21,000	RIMS surveys HDDS studies FNS records	Project start, mid-term and end-project	Project management; DHO	
Output 2: Planning for improved nutritional outcomes	▪ 34,000 beneficiary households participate in VDP preparation (disaggregated by gender and ethnicity of HH-head);	0	3,000	20,000	34,000	Project M&E records and annual surveys	Annual	Project management; Service provider	
Output 3: Women-led improvement in household nutrition	▪ 28,000 women in project area of 15-49 years of age, consume at least 5 out of 10 defined food groups daily (disaggregated by ethnicity)	0	0	10,000	28,000	RIMS surveys	Project start, mid-term and end-project	Project management MoH/DHO	

Results Hierarchy	Indicators					Means of Verification			Assumptions
	Name	Baseline	YR1	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome 3: Sustainable and inclusive market-driven partnerships established	▪ Market driven partnerships increase income of at least 10,000 participating farmers by at least 40% (disaggregated by gender)			3,000	10,000	Project M&E records and annual surveys			▪ Adequate and timely solutions provided to smallholders (aggregation, technology and policy, financing); ▪ Contract farming and cooperative laws put in place and implemented by GoL institutions to ensure fair treatments and reasonable benefits for farmer groups/ associations and cooperatives.; ▪ Productivity improvements are in areas where there is continued growth in market demand. ▪ Villages receive fair terms of trade for their products;
	▪ 10,000 farmers with new land use rights recorded (disaggregated by gender) in a manner recognized by national or customary law	0	1,000	4,000	10,000	DAFO records Project M&E records and annual surveys	Annual	DAFO; Project management Farmers' organizations	
Output 4: Profitable investment in nutrient-sensitive, climate adapted agriculture	▪ 2,000 hectares of new irrigated land established; [13]	0	100	700	2,000	PAFO records	Annual	PAFO	
Output 5: Linking farmers to markets	At least 20 private or public-private agro-processing and quality control facilities installed	0	0	6	20	Project M&E system	annual	Project management DAEC DAFO	
	25 registered agricultural cooperatives or community-based agro-enterprises established with sound charters and business plans	0	0	5	25	Project M&E records and annual surveys	Annual	Project management Contracted service providers	

[13] Irrigation opportunities in some upland districts are limited.

I. Strategic context and rationale

A. Country and rural development context

1. Over the last two decades, the Lao PDR economy has experienced an average annual growth rate of 7%, sustained by macroeconomic liberalisation, market-based reforms and large flows of foreign direct investment, mainly into natural resource-based industries (mining and hydroelectricity) and agriculture. High growth has resulted in a steady decline of the national poverty index, which dropped from 46% of the population in the mid-90s to 23.2 per cent in 2012[14]. The poorest groups in the lowlands are those who have been resettled from mountain regions. In terms of the UNDP multi-dimensional poverty index, 36.8 per cent of the population were multi-dimensionally poor in 2011/12, while an additional 18.5 per cent were near multidimensional poverty[15]. The intensity of deprivation in Lao PDR which is the average of deprivation scores experienced by people in multidimensional poverty was 50.5 per cent. Improved education and health have contributed to increased human development, which grew by an annual average of 1.57% since 1980. The PDR's HDI value for 2013 was 0.569— which is in the medium human development category—positioning the country at 139 out of 187 countries and territories: by comparison, Cambodia is ranked 137th. These achievements have happened against a challenging background comprising a multi-ethnic population scattered over a vast, often difficult to access terrain, and with a multitude of cultures and languages. Progress has, however, unevenly benefitted the population across the country. Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live. In upland areas, the national poverty rate is as high as 43 per cent, compared with about 28 per cent in the lowlands.

2. **Agriculture and Agri-business.** While the GDP share of agriculture declined from 53 per cent to 27.5 per cent between 2000 and 2014, the primary sector remains the largest source of employment: over 70 per cent of the population still live from agriculture, indicating that the economic growth has created few jobs in other sectors. The agriculture sector's annual growth rate averaged almost 5 per cent at the end of the 90s, but declined thereafter and has been erratic since 2005, varying from less than 1 per cent to just 2. per cent in 2012 and averaging just 0.8 per cent per annum between 2000-2012. Much of the growth is due to the expansion of cultivated surfaces to accommodate a rural workforce growing by an annual 2.5 per cent. Although yields are reported to increase across the country, overall sector productivity is still low as indicated by an income per capita in the farming sector that is less than half the national average, and a productivity that is estimated to be 4 to 10 times lower in agriculture than in other sectors. Most of the 650,000 farming households are engaged in subsistence and low productivity activities, producing just enough to support their food and non-food needs. Main factors affecting productivity include a low access to inputs, lack of appropriate technologies, limited access to finance and other support services including extension, limited access to markets, climate risks, as well as farmer's risk aversion strategies. The export of agricultural products, notably paddy, is subject to re-occurring temporary bans, often imposed without notice, thereby disrupting trade relations and stifling productivity. In comparison, Cambodia's open trade policy has led to a 6 per cent annually increase in paddy production over the last five years, with 1.6 million tonnes exported in 2013, compared to only 0.1 million tonnes in 2008. While rice is the main staple food and accounts for 72 per cent of the total cultivated area, farmers grow a varied range of crops, with diversification constituting their main strategy to mitigate risks. Livestock offers a significant complement of food and cash income, along with non-timber forest resources in the upland areas. Agri-businesses are developing and growing rapidly. In the SSFSNP target areas most agri-businesses comprise small and medium scale Vietnamese, Chinese and to a lesser degree, Lao traders, some with processing facilities. These traders often work through middle-level intermediaries,

[14] The most recent survey data available for estimating MPI figures for Lao People's Democratic Republic were collected in 2011/12. UNDP Human Development Index Report 2014
[15] UNDP Human Development Index 2014

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

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 44 per cent of children under the age of five in the rural areas that suffer from stunting (chronic under-nutrition). Factors of vulnerability around food and nutrition security include: (i) the loss of access to and declining availability of natural resources, including land and forest resources, due to the development of concessions, resettlement operations as part of the government's policy of village consolidation, and the expansion of cultivated surfaces; (ii) climatic changes, including extreme climatic events such as floods and droughts, which are perceived to become more frequent and severe, and increased temperature, rainfall variability and late onset of rainy season, leading to crop losses and reduced productivity from livestock due to declining fodder availability; (iii) *declining soil fertility* due to government restrictions on shifting cultivation, which is not compensated by improved agronomic practices; (iv) poor nutritional behaviour and absence of WASH facilities; (v) *sudden increase in food prices*, mostly due to seasonality but also to droughts and floods as well as evolution of world prices; and (vi) and unexploded ordinance (*UXOs)*, with an estimated 30 per cent of bombs of the 1963-73 war that did not explode and are still to be found in the forest, fallow land, or even cultivated areas.

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[16]. 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 per cent of total flooding damage, 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 per cent 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 per cent of GDP (Lao PDR, 2009). Vulnerability assessments show that households in most part of the country are already highly vulnerable to climate variability, with the situation likely to be more severe in the future. Three provinces have particularly high risk of floods, while six have high risk of droughts. Provinces with the largest proportion of villages at high risk of flooding include Xieng Khouang, Sekong and Attapeu, while those with a larger proportion of villages at high risk of droughts are Savannakhet and Huaphan. Moreover, as time passes, the risks tend to expand from north to south.

5. Projected changes in Lao's climate predict that (i) annual mean temperatures would continue to rise by 0.1-0.3°C per decade, and the number of days with temperatures above 33°C would increase; (ii) the number of cooler days with temperatures below 15°C would drop by two to three weeks per year; (iii) dry seasons would get longer; (iv) there would be more intense rainfall events, and more frequent and severe droughts and floods; and, (v) maximum monthly flows in the Mekong Basin would increase by 35 -41 per cent, while minimum monthly flows would drop by 17-24 per cent 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.

6. **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

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

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; (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 Office (DICO), responsible for promoting market linkages, and District Offices for Natural Resource and Environment Office (DoNREO) 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 per cent. Portfolio growth is restrained by cumbersome procedures that are not well adapted to agricultural activities and are the cause of excessive delays in releasing funds. Due to high interest rates and limited outreach in rural areas, microfinance institutions do not constitute adequate partners for farmers. Furthermore, due to their limited resources, problematic governance and high interest rates, village banks are ill-prepared to finance agricultural activities and rather tend to specialise in emergency and social loans and in the financing of petty trade. The UNCDF Fund for Inclusive Finance (FIF), financed by various donors, aims at improving the environment of microfinance and rural finance in Lao PDR and at strengthening the capacity of financial institutions to supply their clients with adequate products and services meeting beneficiaries' needs and requirements.

7. **Nutrition.** Good nutrition is an urgent priority for national development in Lao PDR, where the first National Nutrition Policy (NNP) was issued in December 2008[17] leading to the National Nutrition Strategy and Plan of Action (NNSPA) 2010-2015[18]. The NNSPA 2010-2015 suffered from the absence of inter-sectoral oversight and coordination mechanisms and from inadequate national budget for both nutrition specific and nutrition sensitive interventions. A National Nutrition Committee (NNC) was created in July 2013 with the mandate to create an oversight of nutrition work in concerned ministries and with provincial governors. The NNC has, in collaboration with development partners, prepared the NNSPA 2016-2020, which builds on the above experience and the opportunities created by increased internal commitment and external interest in support, while reflecting GoL policy for longer term strategic time frames. Recommendations from the initial Multi-sectoral Food and Nutrition Security Action plan prepared jointly by the UN and GoL were paramount and introduced the convergence approach.

8. The draft National Nutrition Strategy to 2025 and Action Plan 2016-2020 provides a comprehensive approach to addressing the immediate, underlying causes of malnutrition in Lao PDR. To address the immediate causes at the individual level, the focus would be on improving nutrient intake and reducing infectious diseases that affect the biological utilization of food. To address the underlying causes (mainly at the household and community level), the strategy aims to improve food availability and accessibility, together with mother and child care practices, environmental health and access to health services. Institutional constraints are also targeted including building human capacity, nutrition intervention M&E and knowledge management. The strategy also recognizes the

[17] https://extranet.who.int/nutrition/gina/sites/default/files/LAO%202008%20National%20Nutrition%20Policy.pdf
[18] http://www.fao.org/3/a-at539e.pdf

basic social and economic causes of malnutrition, including human rights and equitable access to resources and builds linkages to sectoral policies that affect the immediate and underlying causes of malnutrition. An associated Plan of Action 2016-2020 establishes a multi-sectoral convergent approach, designed to accelerate the reduction of under-5 stunting from the current 44 per cent[19] to 28 per cent, an ambitious drop of 16 points over five years To achieve this, a management system with rigorous cross-sectoral coordination, cooperation, communication, collaboration and partnership (including non-governmental organizations, civil society, private sector and the donors) would be established, based on a "convergent approach" amongst three principal Ministries – MoH, MAF and MoES – that seeks to co-locate and integrate the benefits of priority interventions especially targeting pregnant and lactating women, adolescent girls and children in areas with high levels of child malnutrition. For the MAF, this would involve its focus on 4 of the 22 priority interventions, namely: (i) expanding and intensifying the production of nutritionally-rich plant-based foods; (ii) production and promotion of animal-based protein for household consumption; (iii) improved post-harvest handling and food processing to strengthen year-round food security; and (iv) promotion of income-generating activities, with a focus on women.

9. **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 and technical service delivery.

10. **Policies for rural growth.** The GoL's overall long-term development goal is to graduate from the status of Least Developed Country by 2020. The National Socio-Economic Development Plan (NSEDP) and the National Growth and Poverty Eradication Strategy (NGPES) are the main policy documents that outline the country's strategy to eradicate poverty. Poverty reduction efforts are focused on the 72 poor districts, which are to benefit from community-driven access-oriented rural development. Key targets for the draft 8th NSEDP (2016-2020) include: : (i)ensuring an annual GDP growth rate of at least 7.5%; (ii) GNI per capita higher than US$1,574 by 2018 and at or higher than US$ 1,810 by 2021; (iii) total poverty reduced to 15% and household poverty rate to less than 7% by 2020; (iv) enhancing international trade and economic cooperation and achieving full international integration; (v) 70% forest cover by 2020; and (vi) livestock production increasing by 6% per annum and fisheries between 8% and 10% per annum, with livestock forming 30% of AGDP by 2020. MAF's *Strategy for Agricultural Development (2011-20)*, which was prepared with IFAD, ADB and other donors' support, aims at ensuring a successful transition from subsistence to sustainable, market-oriented smallholder agriculture. This should be achieved by: (i) transferring modern technologies for increased productivity, high quality production and value-added 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 Participatory Land Use Plans (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.

[19] Above 60 per cent in most Project districts.

11. **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).

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

13. **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 community-based forest management (CBFM) as a high priority in its operational framework. The National Forest Strategy to the Year 2020 goes further, highlighting the need to enhance "village-based natural resource management for poverty eradication" as its second key policy direction, however, community-based forest management in Lao PDR lacks a strong legal standing. The majority of communities in Lao PDR who rely most on forest resources 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[20] 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

[20] 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

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.

14. **Socio-economic Development Planning.** The Ministry of Planning and Investment (MPI) guided Five-Year Provincial and District Socio-Economic Development Plans are strategic documents which list medium-term social and economic targets and goals for the provinces and districts. They integrate national development and sector policies and outline and prioritize local sector strategies for achieving those targets. Provincial plans take into consideration the five-year development plans for districts within the province. The Provincial Planning Department is responsible for the production of this plan in coordination with provincial sector departments and mass organization representatives. The plan is approved by the Provincial Governor. Five-Year District Development Plans take into consideration the Five-Year Kum Ban Plans, and are prepared by District Planning and Statistics Offices, in coordination with district sector officials and mass organization representatives. The Five-Year Plan is composed of the following sections: (i) Implementation work done in the past five years; (ii) guidelines, duties and targets for the next five years: (iii) measures for implementation and (iv) attached tables showing socio-economic data and planned projects. Annual development plans are produced to implement and monitor the delivery of Provincial and District Five-Year Plans. They include detailed information on the status of projects and other development activities and aim to integrate national policies with local needs and priorities. Annual Development Plans consist of the following sections: (i) review of implementation activities during the past year, (ii) development plan for the current year; and (iii) attached tables showing socio-economic information and Provincial Investment Component (PIP) projects in the areas. Key targets for the 8th National SEDP are described in para. 10.

15. **GAFSP Technical Advisory Committee recommendations** The GAFSP Technical Advisory Committee made three key recommendations for strengthening project design. Those issues and the design response are detailed in Table 2 below

Table 2: Design Response to the GAFSP Technical Advisory Committee recommendations

Recommendation	Design response
Despite long experience by many groups working in these areas, the proposal provides little empirical evidence on past implementation performance in these less well-served areas. Annex 3 includes lessons learned from other IFAD financed or co-financed projects. The project team is encouraged to indicate whether these projects were implemented in these areas.	The design team drew extensively on project implementation experience in Lao PDR and. in particular, from the World Bank financed PRF I & II and SNRMPEP, the IFAD-financed FNML and SSSJ projects and from the experience of a range of development partners and NGOs working in the fields of participatory development, extension, sustainable land use and allocation, climate change adaptation and value chain development. Representatives of the agencies implementing these projects contributed to the project design through their participation in several design workshops during project development,
While new technology for rice is reportedly available from NAFRI, the extension system is	The project design recognises weaknesses in the existing extension system and proposes to

weak and this may affect dissemination.	address these in the Project area through: (i) implementation of the broadly supported Lao Extension Approach; (ii) technical training for TSC staff targeted at locally identified technical constraints; (iii) assistance to TSCs to develop medium-term business plans; (iv) financing of Kum Ban level outcome-based TSC service contracts; (v) promotion of farmer-to-farmer extension with the support of the Farmers Union; and (vi) promotion of enterprise-to-farmer extension[21].
It is not clear to what extent land or water rights will impinge on implementation.	Laos does not have a system of national water use rights and, in upland areas, water offtake represents a relatively small percentage of total water availability, Agriculture and forest land use rights, including community-based forest use rights, however, are critical to development sustainability in Lao PDR and the project will support land use planning and co-finance the securing of land and forest use rights for all agriculture and forest land developed through Project interventions.[22]
The proposal builds on the IFAD/ WFP model but offers limited evidence documenting the past performance of these efforts	As noted above, the Project approach builds off a wide range of donor experience in Lao PDR, including that of IFAD and WFP. Lesson's learned from IFAD experience in Lao PDR are summarised in Appendix 3, Appendix 12 and the Social Environment and Climate Assessment Procedures Review Note, and the project design has sought direct input from a wide range of development partners through workshop discussion and review of the design document.

B. Rationale

16. The livelihoods of upland Lao communities are dependent on extensive, low productivity agriculture, through which they aim to meet their minimum subsistence requirements. The most significant constraints facing their economic development are in health, education, nutrition and access, compounded by limited availability of agricultural inputs, productive land, water and technical services. To a significant degree, these challenges are interlinked, limiting the prospects of sustainability for stand-alone interventions. Unless households' basic needs are comprehensively addressed, piece-meal interventions face risks of being unsustainable. Overcoming the challenges facing poor upland communities reliant on subsistence livelihoods, requires (i) strengthening their capacities to take active ownership of the development process in their communities and to collaborate, plan, and act effectively; (ii) availing them the resources to undertake holistic action to address perceived constraints; and (iii) ensuring a convergence approach and policy framework amongst supporting institutions at state, provincial and district levels. The GoL's NNSPA envisages such an integration in the work of nutrition-conscious organisations and offers an entry point for a

[21] See Main report para. 14, Appendix 2, para29, Appendix 4 paras. 36 and 39 and Appendix 5, paras. 4 and 5.
[22] See MR para 53 (ii) and project budget (Outcome 3) where USD2.6 million is provided for land use certification.

more comprehensive and integrated approach towards sustainable and community-driven development among the country's poorest rural communities.

17. Under-nutrition and food insecurity remain stubbornly high in upland areas targeted by the NNSPA 2016-2020, with stunting levels of children under five years, as high as 61 per cent in some provinces, the impact of which is lifelong. Under-nutrition blights lives and undercuts social and economic development. Children who are chronically malnourished in the critical first thousand days, beginning at conception, can suffer irreversible damage to their physical and mental development. Improving women's nutrition is critical to breaking the intergenerational cycle of under-nutrition and, given the negative impact that chronic under nutrition has on health, productivity, educational attainment, and income-earning, its redress is essential to sustained national economic growth. Communities most prone to under-nutrition live in upland areas where the dominant household economic activities – agriculture and non-timber forest product (NTFP) extraction – are increasingly constrained by unsustainable farming practices and natural resource use, large-scale land concessions, and limited adaptation to climate change (CC).

18. While these conditions are more pronounced in upland areas, they are also present in differing degrees among impoverished rural communities in the lowlands. These general conditions suggest that improving nutrition and other socio-economic outcomes in rural communities requires (i) working with these communities to: improve nutrition/dietary awareness, and implement targeted nutritional activities aligned with targeted behaviour change strategy; (ii) introducing/supporting sustainable agricultural practices that increase the productivity of limited land and water resources (both in relation to food security and to increasing incomes); (iii) introducing labour-saving technologies that can help free time within the household away- from subsistence activities towards remunerative economic activities and social needs (income-generation, production of more nutritious foods, school attendance for children, literacy enhancement, etc.); and (iv) connecting isolated communities (particularly remote upland communities) to public and private opportunities within the district and regionally.

19. Seventy percent of Lao workers are engaged in agriculture, making the sector an important part of Laos' development strategy. Boosting agricultural productivity is a top priority to raise farm incomes, lower the need for labour in the agricultural sector, and eventually free agricultural workers to move out of farming into more productive, higher-paying sectors with more growth prospects. Improving agriculture sector productivity, reducing its vulnerability to climate change, expanding private sector investment, and better targeting public investment, particularly for irrigation and technical support services, are central to improved agricultural productivity and growth. The Agriculture Development Strategy (ADS) and the NNSPA provide the strategic framework, while the "*sam sang*" approach, wherein the province is the strategic unit, the district the planning and budgetary unit, and the village the implementing unit, provides the institutional framework for accelerating sector growth. The GoL is also addressing weaknesses in development and planning and coordination, particularly concerning Official Development Assistance (ODA) resources, applying various mechanisms including sector working groups and a roundtable process to remove implementation bottlenecks, bring complementarities to the work of differing agencies and ensure that implementation is efficient.

20. Building off these recent developments, the Global Agriculture and Food Security Program (GAFSP) grant is designed to pilot new approaches and technology and scale up existing successful technologies and systems that, applying a convergence approach, will accelerate GoL achievement of national food security and improved nutrition. In pursuing this objective, the Project will place strong emphasis on building an enabling environment for sustainable market-led improvements in nutrition-rich and diverse agricultural production and productivity and rural employment and incomes through: (i) participatory, bottom-up village level public investment planning and implementation as well as the facilitation of convergence of NNSPA activities at District and village level; (ii) the empowerment of women to improve family diets in particular during the 1,000 day window; (iii) the development of farmers' organizations linking men and women farmers to markets; (iv) the application of the Lao Extension Approach, which shifts the extension worker role from 'solution giving' to that of process

helper and resource linker in a system emphasizing decentralized farmer-to-farmer and enterprise-to-farmer extension; and participatory, result based M&E; and (v) support to private agri-business investment, seeking business models that (a) more clearly align with both development and growth objectives, (b) improve collaboration and communication between foreign direct investment (FDI) and ODA investments, and (c) achieve mutually beneficial outcomes for investors and farmers and farmer groups.

21. Project interventions will focus on the implementation of the four nutrition-sensitive agricultural activities within the 22 priority interventions under the NNSPA, namely, (i) expanding and intensifying the production of nutritionally-rich plant-based foods; (ii) production and promotion of animal-based protein for household consumption; (iii) improved post-harvest handling and food processing to strengthen year-round food security; and (iv) promotion of income-generating activities, with a focus on women. The project will empower women to sustainably achieve better family nutrition outcomes, particularly for pregnant women and children up to the age of 5 years, through group implementation of the aforementioned NNSPA nutrition-sensitive agriculture interventions. In pursuing its agriculture outcomes, the Project will promote "green technology," for sustainable land management and climate adaptation, with all interventions having a neutral or positive ("no regrets[23]") effect on the ability of communities to adapt to climate change. A similar "no harm" principle applies to nutrition outcomes.

II. Project description

A. Project area and target group

22. **Project area.** The Project will be implemented in 12 districts and approximately 400 villages in Oudomxai, Phongsaly, Xieng Khouang and Houaphan provinces in northern Lao PDR as detailed below. While the Project was originally proposed to the GAFSP for implementation in upland provinces in both northern and southern Lao PDR, the GoL has requested that the project be concentrated in the north of the country because (i) there are higher levels of poverty in the northern mountains; (ii) the opportunities for convergence with nutrition initiatives are greater in the selected northern provinces; (iii) the FNML and other Development Partner supported projects in the south are already providing substantial assistance to the poorest districts in southern provinces; and (iv) the opportunities for "pro-poor and pro-green value chain development" is greater in the north, where Chinese and Vietnamese investors are more focused.

Oudomxai	Phongsaly	Xieng Khouang	Houaphan
• Namor • Lah	• Mai • Boun-Tai • Samphan • Khua	• Kham • Nonghet	• Huamuang • Xam-Tai • Kuan • Xon

23. **Target group**: The main target group will be within the population of 400 SSFSNP target villages[24] in the aforementioned 12 districts. Ethnic people represent the majority of the population in all SSFSNP districts[25]. Villages within these districts will be selected based on, *inter alia*, (i) kum ban poverty data as specified in Government's Decree #285/PM, specifically those related to poverty and stunting incidence and access to a road and WASH facilities; (ii) potential for agriculture-led growth including the agriculture and forest resource base, irrigation development potential and market access; (iii) commitment of kum ban and village leadership; (iv) an assessment of climate change

[23] A "no-regrets" approach is a proactive people and place oriented approach to building resilience to climate change that focuses on transforming, strengthening and protecting assets and livelihoods, including the provision of basic needs (including security), for all persons

[24] The original proposal was to support 360 villages. Following the detailed design of the project and considering the additional convergent nutrition funding in the project area, this has been increased to 400 villagers.

[25] Key characteristics of the Lao target ethnic groups are summarised in Appendix 1

vulnerability and availability of remedial solutions; and (v) opportunity for convergence through on-going or planned support projects. 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. The SSFSNP will not work in villages which have been relocated in the last four years and/or which will be resettled in the next four years. The Project will allocate investment resources competitively based on benchmarked village performance. 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 Project services and benefits, the SSFSNP will adopt measures to increase women's participation and influence in community-based participatory planning including: (i) equal gender representation on the SSFSNP village development committee (ii) 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; (iii) 60% of approved activities must be a priority for women; and a (iv) a weighted voting system that strengthens the voice of poor households.

24. The Project will also adopt an age-stratified development approach including providing better nutrition for under-5 year olds, behavior changing life knowledge for primary school children, employment for rural youth through rural infrastructure development under force account, the opportunity for farmers, particularly poor and women-headed households, to associate to produce and market nutrient-rich food, and the opportunity for others in this category to engage profitably in agri-business relationships, including contract farming. For all members of the rural community the project will offer the scope for more sustainable natural resource utilization and will strongly promote nutrition behavioral change.

25. It is estimated that the project will work with 34,000 poor smallholder households. Assuming a 60% success rate, the SSFSNP would lift an estimated 21,000 households or 141 thousand people[26] out of poverty[27] by Project-end. Working males and females form about 63% of the Lao PDR population, with females forming a lightly larger proportion of the working age group than males, it is estimated that the SSFSNP would impact on about 43,000 working age women and 42,000 working age men. In addition, at least 38,000 women[28] are expected to directly benefit from the Outcome 2, household nutrition programme. This is consistent with the original proposal, which, when adjusted for the reduced GAFSP funding, proposed impacting directly on 51,000 women and 38,000 men.

26. **Gender Targeting and Mainstreaming Strategy**. In conjunction with the Lao Women Union (LWU), SSFSNP will promote gender equity mainstreaming as well as women's participation in village development planning, nutrition and production groups/partnerships and market/investment linkage programmes, assisting them to gain equal access to agricultural support and investment opportunities. Specific measures detailed in the Action Plan include: (i) gender analysis of the farming systems in the project area conducted at the beginning of the Project (ii) 50% of the participants in village planning consultations are women farmers with separate consultations to be held with men and women to identify their concerns, needs and preferences, ensuring women's voice will be taken into consideration and addressed; (iii) gender awareness-raising will be conducted at village level and amongst all project stakeholders at all administrative levels; (iv) all committee members (women and men) will be trained on group formation and capacity strengthening training in participatory decision-making and facilitation techniques, leadership skills, public speaking, confidence building; (v) ensuring that both male and female family members have access to group technical training and other capacity development activities, with a target of 40% women in mixed gender groups; (vi) at least 40% of committee members of VDP sub-committees are women; (vii) promoting higher quality female participation in farmers' organisations decision-making bodies, with a target of at least 40% women; (viii) developing the capacities of extension agents to include women, and, where appropriate, organising special sessions for women; including gender audits in

[26] It is estimated that each household would, on average, include 6.7 members
[27] Each HH with a per capita income > USD 270 per annum. Prime Minister's Decree Ref.309/PM dated 14 Nov. 2013
[28] A significant proportion, but not all of the women benefitting from Outcome 2 activities will also benefit from other project Outcomes.

annual farmer groups' capacity assessments; (ix) technical training materials will include training needs and topics highlighted by women and extension training schedules will ensure that location and timing of delivery are convenient for women (x) supporting farmers' groups to increase the number of women members, (at least 40%) including in leadership, and to ensure that they have equal or better access to services; (xi) supporting women groups where appropriate (and notably for farmer nutrition school and household nutrition activities); (xii) appoint a Gender specialist to the Project DAEC team; (xiii) disaggregating M&E data and analysis by gender; and (xiv) supporting the recruitment of women to ensure gender-balanced programme implementation teams at all levels.

27. Additionally, SSFSNP will support the LWU in building capacities to implement the Gender Action Learning System (GALS), a community-led empowerment methodology that aims to give women as well as men more control over their lives. 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. Ethnic women practice traditional *swidden* agriculture. If *swidden* is limited or decreased 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 SSFSNP 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 (reflective of women's time economies).

B. Development objective and impact indicators

28. The Goal of the Project is: "Contribute to reduced extreme poverty and malnutrition". The success indicator at the goal level is:

- incidence of child malnutrition (height for age) amongst two-year old children in Project villages, reduced from 60%[29] at present to 50% by project completion (disaggregated by gender and ethnicity).

29. The Project Development Objective (PDO) is: "Improved and diversified climate resilient agricultural production and household nutrition enhance life prospects". Key success indicators at the PDO level include:

- 21,000 HH out of poverty by increasing per capita income from the current level to more than $270/yr. [30]) by Project-end (inflation adjusted and disaggregated by gender and ethnicity); and
- At least 21,000 households with improved food security (measured as a HFIAS[31] score of 7.0 or lower (disaggregated by gender and ethnicity.

C. Outcomes

30. The Project will have three main outcomes; (i) Strengthened public services; (ii) Community-driven agriculture-based nutrition interventions established; and (iii) Sustainable and inclusive market-driven partnerships established. There will also be a Project Coordination outcome. These outcomes will establish the capacity in public sector agencies necessary to implement a community driven planning process consistent with "*sam sang"* principles, establish a foundation for the widespread adoption of the four NNSPA agriculture interventions, and support the emergence of an efficient and

[29] Current level of stunting to be confirmed through Project baseline survey
[30] Prime Minister's Decree Ref.309/PM dated 14 Nov. 2013
[31] Household Food Insecurity Access Scale (HFIAS), (http://www.fao.org/fileadmin/user_upload/eufao-fsi4dm/doc-training/hfias.pdf)

profitable farming sector, producing at scale and effectively linked to agri-businesses adding value in-country.

Outcome 1: Strengthened public services. This outcome will have one output.

Output 1. Build government staff capacities and procedures and technical packages to support and converge community implementation of selected National Nutrition Strategy interventions. This output will include two activities.

31. *Activity 1: establish a tiered Project planning, supervision, monitoring, knowledge management and learning system within MAF, supporting nutrition investment convergence strategies in target districts.* This output, led by the National Project Coordination Office (NPCO) under the MAF Department of Planning and Cooperation (DPC), will, building off multi-donor support to the strengthening of MAF planning and M&E systems: (i) establish a tiered Project planning, supervision, monitoring, knowledge management and learning system within MAF, together with coordination mechanisms for programme convergence on food security and nutrition investment; and (ii) build capacity of Project-targeted provincial and district administrations to plan, manage and monitor, multi-sectoral public investments in food security and nutrition identified through participative, bottom-up planning.

32. The Project will, in support of improved planning and continuous learning, better integrate systems and procedures into the day-to-day work of MAF-DPC and its provincial and district counterparts that map community needs and resources, measure the performance of programs and services and track individual, family, and neighbourhood outcomes. Given the complexity of the task, impact measures will be developed with the help of an embedded research organization that can translate desired outcomes into operational measures and assemble and process the data necessary to track these measures over time. Such analysis will be woven into the core planning and decision making responsibilities of the MAF, the participating Province Agriculture and Forestry Offices (PAFOs), and, particularly at district level, the implementing partners of the multi-sector food security and nutrition strategy coordinated by the local socio-economic development committee. At all key meetings, beneficiaries shall be present and consulted. In support of ethnic people's empowerment, all project staff will be trained in ethnic people self-driven development, culture and identity.

33. Activity 2. Build *GoL service provider (DAEC, TSCs and NAFRI) capacities to develop and deliver sustainable climate-adapted and nutrition-sensitive agriculture and natural resource management technologies and training programmes and monitor their impact*.

34. The Department of Agricultural Extension and Cooperative (DAEC), with national and international technical assistance, Technical Service Centres (TSCs) and National Agriculture and Forestry Research Institute (NAFRI) support, will lead Project development and delivery of sustainable climate-adapted and nutrition sensitive agriculture and natural resource management technologies and training programmes. Agricultural technical options/packages should be based on a thorough analysis of available downscaled climate projections. It should not be assumed that all sustainable agricultural interventions will promote adaptation. Enhancing soil moisture will be a further critical adaptive measure, and this will necessitate improving soil structure, not just fertility. The project would ensure inclusion of varieties and technologies that will deliver results under a range of conditions, to accommodate uncertainties in projections. Technical options should be developed in a participatory process with local farmers to ensure inclusion of local and traditional knowledge, as well as cultural acceptability. Proposed technical initiatives would include:

(i). *Participatory action research*. The SSFSNP will contract NAFRI to implement a Participatory Action Research (PAR) programme in collaboration with project supported smallholder groups. The NAFRI will, in collaboration with farmer groups, identify technical and socio-economic constraints and opportunities for the field development of the four MAF-led initiatives under the NNSPA. 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 lightened. Training in PAR methodologies and practices will be provided for NAFRI

scientists and to national and district level MAF and PAFO and DAFO staff. The NAFRI Agriculture and Forestry Policy Research Centre (AFPRC) will also evaluate climate adaptation technologies and approaches that show potential for scaling up. This will include climate resilient adaptation innovations such as drip irrigation, field testing drought- and heat-tolerant seed varieties, forage incorporation into farming, forestry and land stabilization systems, soil degradation and organic matter inclusion and farming and forestry models for building a knowledge base on viable livelihood activities. Particular attention will be paid to improving upland paddy rice productivity.

(ii). *Forage development*. Many farming systems in the Project area mine soil nutrients, and cropped areas are prone to severe soil erosion. Forage inclusion in farming systems, particularly leguminous forages, is possibly the most cost effective approach to reducing these negative impacts. To ensure quick impact and longer term sustainability, forage programmes require an ample seed supply. Many upland farmers do not understand the need for improved animal nutrition and are disinclined to grow forage. The Project could alter this behaviour by first focusing on developing selected forages as a very profitable seed crop, with the forage based feed as a by-product. If the forage seed crop is grown close the home, farmers quickly appreciate the labour reduction in forage based cut and carry feeding and its value as a forage is enhanced. Using an approach of Project procurement of forage seed at competitive prices (but well below import cost) and free distribution of small quantities of seed to interested farmers, the Project could quickly establish a demand for low labour input forage technologies that integrate into local farming systems, providing benefits in terms of animal nutrition, improved soil fertility and stability and reduced labour.

Short-term national and international forage specialists will conduct an initial assessment of forage production opportunities in the Project districts, order initial seed requirements, provide technical awareness training for DAEC and DAFO staff including a domestic study tour and coordinate an international study tour to Thailand and/or Nepal to inspect the national and school-based forage programs. The International Centre for Tropical Agriculture representation in Laos has expressed interest in "backstopping" such a programme.

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

(iii). *Technical Service Centre (TSC) development*. The DAFO TSC network is both under resourced and under motivated to service its smallholder farmer clients. Past attempts to support such centres have often not been sustainable. The mission has identified a range of technology innovations needed to support sustainable smallholder food and nutrition security, and the participatory planning process described in Output 2 will generate many more demands for technology innovation. Based on clear farmer demand, the Project will provide up to LAK 64 million (USD 8,000) per kum ban to finance up to 3-year outcome-based contracts (See Appendix 4 for details) with TSCs to test and demonstrate innovative technologies on farmers' fields. The grant will be included in the consolidated kum ban development plan submitted to the district for approval. The issuance of such grants will be subject to participating TSCs adopting a business plan that demonstrates a clear long-term pathway to financial sustainability. The Project would recruit a national consultant, who, supported by the national and international business development advisors, would evaluate existing TSCs in project kum ban and assist the TSC team to develop a viable business

proposition for Project consideration. Based on this business proposal, the project could provide a grant to the TSC (up to USD 18,000) to restructure and to acquire the necessary skills and resources to establish a sustainable TSC funding model. Activities under outcome-based contracts could include, *inter alia*: the selection of superior local upland rice varieties and development of associated farmer-managed seed banks; integrated pest management (IPM), forage technology demonstration; micro-livestock farming (e.g. frogs); fish farming and aquatic environment protection[32], sustainable NTFP management; post-harvest storage, loss reduction, food safety and traceability, etc. The DAEC will guide TSC technology innovation and demonstration. Work will be closely aligned with ongoing research projects in Lao PDR.

(iv). *Farmer-to-farmer technology transfer*. Farmer field schools, based on the principle of people-centred learning, can be effective in ethnic communities by enabling farmers to observe, analyse and try out new ideas on their own fields. Where appropriate, the Project will assist farmer groups to establish Farmer Field Schools (FFS) to support DAEC/DAFO/TSC-led learning and technology transfer on key agriculture technologies and tools including farming as a business, group dynamics and management, IPM, food safety and product certification, animal health management, sustainable forest resource management, farmer seed banks, forage production, climate change adaptation, land use planning, integration of nutrition and gender considerations, etc. The project would focus on a farmer-led approach, which is most likely to lead to sustainability and scalability. Farmer facilitators would be trained in group and farm management and in the relevant technologies. Experienced local NGOs could also be used for technology transfer, together with farmer-to-farmer and enterprise-to-farmer extension, which is expected to be an important learning mechanism within and between farmer groups/associations.

Outcome 2. Community-driven agriculture-based nutrition interventions established

35. This outcome will be supervised by the World Food Programme (WFP) under the GAFSP Technical Assistance (TA) grant. Under this outcome, the Project will support two outputs:
Output 2: Planning for improved nutritional outcomes, which will include two activities, namely (i) District multi-sectoral convergence planning; and (ii) Village development planning; and
Output 3: Women-led improvement in household nutrition, which also includes two activities, namely (i) Farmer nutrition schools; and (ii) Household availability and utilization of nutritious food. It is anticipated that progress in these areas will positively impact on nutrition outcomes.

36. Good nutrition is an outcome as well as an essential input into social and economic development. Agriculture, and in particular, food systems, have a foundational role in nutrition. Investing in women and nutrition through agriculture is more than a social good; it is sound development policy and good economics. That is why there is stunting as goal indicator and improved household access a PDO indicator. Outcome 2 focus particular on nutrition and women-led activities, with improved dietary diversity along the life cycle as an Output 3 indicator.

37. Good nutrition increases learning and cognitive abilities as well as labour productivity, increasing rural farm income as well as overall economic and agricultural growth. To really make a difference in rural Laos, a comprehensive approach that simultaneously tackles the causes of malnutrition is needed. Households must have good knowledge about food, care, and health as well as access to the right amounts and kinds of food and to good water and sanitation and health care. This empowers communities to prepare their village development plans and supports programmatic convergence for mother and child health (MCH) and WASH.

Output 2. Planning for improved nutritional outcomes.

38. *Activity 1: District multi-sectoral convergence planning.* At district level, the SSFSNP will facilitate "planning for nutrition investment and service delivery convergence" to accelerate the

[32]Aquatic-sourced protein provides 50% of the protein intake of upland rural communities.

implementation of the NNSPA, including the mapping of different stakeholders' programmes and infrastructure assets, with a view to identifying development gaps at village level and monitoring progress towards the NNSPA 10+4+4+4 outcomes. The SSFSNP will facilitate the joint work of relevant Districts Committees including the District Nutrition Committee, District Socio-Economic Development Committee, District Rural Development Office (DRDO), District Planning and Investment Office (DPIO), DHO, DAFO and other GoL district line agencies, together with development partners and the private sector where appropriate. This will support the NNSAP activity 12 (intervention 23)

39. At District level the overall approach will follow the NNSPA guidance to "plan multi-sectorally, implement separately per sector and monitor multi-sectorally" DHO will be responsible for reporting back to the Provincial- and the National-level Nutrition Secretariat Offices. With Project support, MoH/PHO/DHO will also provide nutrition training to ensure all GoL key stakeholders understand the topic of nutrition, its multi-sectoral nature and economic impact. This will support the NNSAP activity 11 (intervention 22)

40. In addition to programmatic convergence, the Project would also support knowledge convergence and learning, particularly concerning the implementation of the four NNSPA agriculture interventions. This would include annual progress review and learning workshops for provincial and district officials, and, particularly, farmer-to-farmer knowledge exchange, both between SSFSNP-supported villages and between Project and non-project villages in Project districts. This exchange is expected to lead to considerable flow-on benefits as nutrition behaviour change is as much related to improved knowledge as it is to physical assets and access to services.

41. *Activity2:* Village *development planning.* The Project will build the capacity of village stakeholders to lead the development process in their communities by investing in building communities' identification with their values, heritage, resources and traditional knowledge and strengthening their ability to collaborate, plan and act effectively. Villagers must give their free, prior and informed consent in joining the project. The preparation of village development plans (VDPs) will be supported by experienced community planning service providers, who, under performance based contracts, will be tasked with initiating a process whereby villagers prepare three-year, multi-sectoral nutrition-sensitive village development plans supporting the implementation of the NNSPA agricultural intervention and associated infrastructure requirements. The starting point of the VDP process will be a rural institutional assessment and mapping of the project districts and communes and a vision meeting to raise awareness about what is stunting, so that villagers can make informed choices and plan "nutrition-sensitive" agriculture and rural development interventions. Service provider contracts will require the transfer of responsibility for VDP development to district administrations within 3-4 years. The project will support PAFOs and Provincial office for Natural Resources and Environment (PoNRE) to apply GIS-based land use classification and planning support where appropriate. Where participatory VDPs already exist[33], villagers and service providers will augment those existing plans rather than duplicate them. The VDP, which will be underpinned by an associated participatory land and forest use plan, will prioritise investments in (i) nutrition-sensitive village infrastructure (irrigation, multiple-use water supply, fish ponds, village roads, storage and market infrastructure, etc.); (ii) women-led improvement in household nutrition; and (iii) farmer-group development and linkage to markets. In exceptional cases where convergence funding for WASH facilities is not available and there is an expressed community need, WASH investments could be financed. It is anticipated that progress in these 3 areas will positively impact on nutrition outcomes through the "food route" (green boxes) as well as through the "knowledge route" (olive box) in Figure 1 below. The methodology for participatory village planning and role of service providers will be described in the Project's Implementation Manual (PIM). The NPCO will periodically assess the planning processes to ensure beneficiary needs are being effectively met.

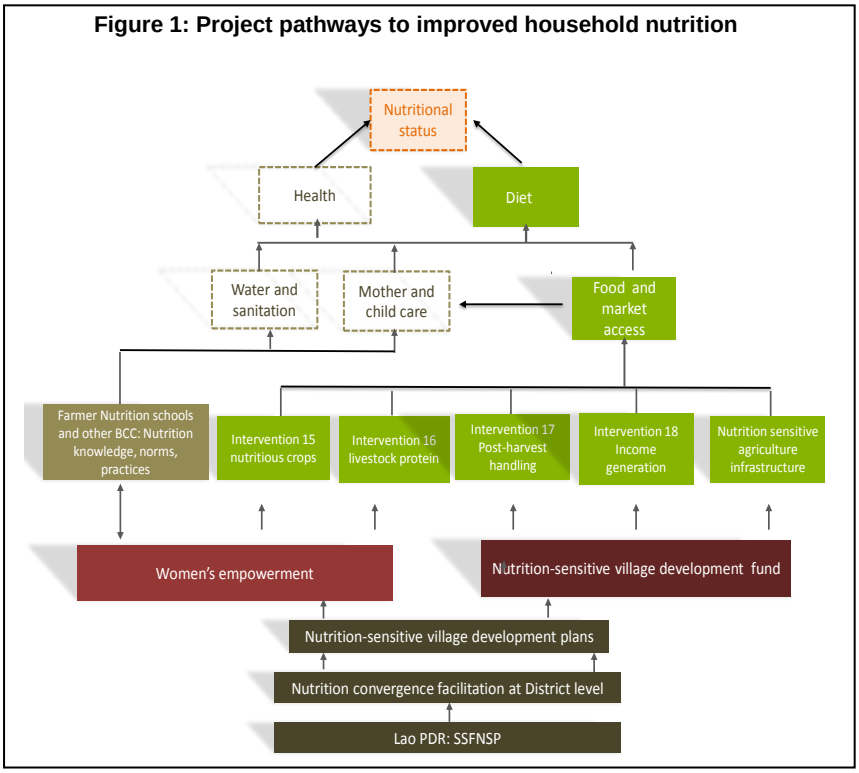
42. The VDP will be developed during a series of village assembly meetings, supported by the Service Provider and led by an elected and trained Village Implementation Team (VIT) with at least

[33] For example, a VDP developed with Poverty Reduction Fund II support

50% female and 40% village-identified poor household participation in all planning meetings. Approved VDPs will be brought to kum ban level where they will be aggregated, assessed for their effectiveness, feasibility and cohesiveness and prioritised by a committee comprised of VIT representatives nominated by their communities, leading to the preparation of a Kum ban Development Plan (KDP). VIT representatives engaged in the kum ban planning process will elect a Kum ban Management Team (KMT), which will, in turn, elect members of committees responsible for KDP procurement, finance and audit. Where operational VIT and KMT or their equivalents already exist, they would be used by the SSFNSP in order to avoid the duplication of local structures. Consolidated KDPs will be forwarded to district administrations where the existing district socio-economic development planning committee, will, in consultation with KMT representatives, appraise KDPs and provide their no objection to their implementation based on their consistency with the district socio-economic development and nutrition convergence and investment plans. The PAFO head, who will be the SSFSNP Provincial focal point, will participate in the District decision meeting. KDPs will not be subject to change at district level without KMT agreement. Following District Governor approval, KDPs will be financed on a cost sharing basis by a dedicated Project grant to the district Project account. Funding for those elements of the KDP to be implemented by VITs will be forwarded, within 5 days, to KDP accounts to finance, where feasible, community force-account procurement for those elements of the VDP implemented at village level. Villages will "graduate" from Project investment support after three – or in exceptional cases – after four years.

43. The Project will be committed to delivering food and nutrition security investments that are disaster and climate-change resilient. This will be achieved through (i) conducting a thorough Project review of sub-project designs in order that disaster-proofing measures can be incorporated; (ii) the application of a disaster and hazard risk assessment checklists and survey forms for use early in the sub-project design cycle; (iii) the application of sub-project cost/benefit analysis to the sub-project selection process[34]; and (iv) training the Project and district staff in disaster risk reduction design and (for infrastructure sub-projects) construction techniques.

Figure 1: Project pathways to improved household nutrition



Output 3. Women-led improvement in household nutrition

44. This Output will promote women-led dietary behaviour change and supporting investment in the NNSPA agricultural interventions addressing improved nutrient availability and utilisation at household level.

[34] The cost-benefit analysis will be done by Project staff, with national and international consultant support where required, building off templates prepared during the SIP analysis, recalling that investments in increased production and value addition will be focused on those commodities identified as most profitable by the preceding SIP analysis

45. *Activity 1: Farmer nutrition schools.* A social behavioural change communication (SBCC) programme, jointly supported by SSFSNP and the World Bank-financed Health Governance and Nutrition Development Project (HGNDP). The HGNDP, which will be implemented in all SSFSNP villages in Houaphan, Phongsali, and Xiang Khouang provinces, will focus on selected critical behaviour in five clusters; (i) Infant and Young Child Feeding (IYCF), (ii) Maternal Care and Nutrition (iii) WASH, (iv) agriculture and dietary change and (v) Household Air Pollution. Specifically, the Project will support the establishment of monthly village-level "farmer nutrition schools" (FNS), which will focus on cluster (iv), namely the four NNSPA agriculture interventions. As such, the FNS will aim to balance household food availability and utilisation from agricultural production, wild food collection and purchase throughout all seasons of the year, thus enabling villages to increase dietary diversity from their village agro-biodiversity. Topics will also include food storage and processing and food preparation and link with health sessions on WASH, infant and young child feeding (IYCF), in-door air pollution and maternal care and nutrition The FNS will convene women, particularly women in the reproductive age (WRA), but also older women who influence cultural beliefs, particularly concerning food and other taboos related to pregnant women and infant children. Men will be also targeted during regular village meetings, e.g. large animal vaccination meetings (cattle, buffalo) with the same messages (one female FNS facilitator to join).

46. FNS implementation will be coordinated by the local DHO with the support of the DAFO and the village nutrition committee (or any other existing relevant committee, e.g. village health committee). Communities will either work with the three village facilitators supported by HGNDP or support the new election of up to three female FNS village facilitators per village who will also be trained to become the village focal points for the nutrition-sensitive agriculture groups (see Activity 2 below). MoH/PHO and DHO will provide relevant training-of-trainers (TOTs) courses for capacitating stakeholders and volunteers, using the same master trainers wherever possible, in cooperation with the HGNDP project

47. *Activity 2: Household availability and utilization of nutritious food*. Under the VDP, existing household food consumption habits, food sources by season for the six food groups, and cooking and food preservation practices will be mapped. Building off this VDP data, LWU representatives with prior Project nutrition training and with DHO, DAFO and Project gender/nutrition expert support, will facilitate a FNS-led discussion with village women on opportunities to increase, diversify and seasonally improve household supply of nutritious food. That discussion will lead to the identification of household and group investments eligible for Project grant support. This will include two types of activities:

(i). *FNS-initiated group or individual household activities targeting household vegetable production*. For home and communal gardens, the Project will: (i) promote the production of vegetables/fruits containing fat (sesame, pumpkin seeds, coconut), plant-iron (ivy gourd, yard long beans) and vitamins; ─ crops with nutritional added value that could also be marketed (e.g. moringa, garlic, shallot, lemon/limes and sesame) will be particularly promoted; (ii) support production technologies such as nurseries or net houses to increase vegetable production during the rainy season; (iii) enhance green agriculture practices such as compost and green insecticides and herbicides; and (iv) raise awareness on good husbandry practices. Home garden starter kits, based on actual village needs, will include seeds and seedlings, material for netting and fencing (plastic net rolls, metallic wire, nails), small tools (hoe, spade, hose), etc. Women will be given the opportunity to choose between household or community-based gardens. To encourage solidarity, each interested household will be allocated an equal sized space in a community garden. Where possible, home and community garden establishment will be supported by the development of multi-purpose village water supply and micro-irrigated gardens.

(i). *FNS-initiated* production *of small livestock and aquaculture products for improved household protein supply.* This activity aims at promoting small livestock and fish farming amongst vulnerable households by supporting livestock/aquaculture access and better

husbandry, especially related to animal and aquatic health. The intent is to raise small livestock and aquaculture products, primarily for home consumption (meat, eggs, insects and aquatic products), with only household surplus for sale at local markets. It does not aim to raise livestock/aquatic products at a commercial scale. Project support will include (i) guidance on building animal housing and fish ponds, primarily using local materials; (ii) training in animal husbandry and aquaculture management, including at least two women per village trained as community animal health workers (CAHWs); (iii) funds for local animal and aquatic stock purchase, vaccination and parasite control; and (iv) seeds and guidance for forage production. The construction of secure animal housing would be a condition of support for livestock purchase. Women would be encouraged to form groups to manage activities such as pig raising and aquaculture production. Trained CAHWs would be provided with a basic veterinary kit and encouraged/enabled to charge for services provided to livestock owners at village level.

48. Project investments supporting women-led household availability and utilization of nutritious food will be one hundred per cent grant financed, but beneficiaries would be required to have access to and usage of a toilet as a condition of entry. Women/women's groups will be eligible for grants of up to $120 per household/member. Groups could also invest in technology to improve post-harvest handling and food storage, processing and marketing, including drudgery-reducing technologies such as rice milling and the fermentation or drying of produce, or the introduction of energy saving cooking stoves. The DAEC/TSCs will provide technical support. Investments under both of these initiatives would be financed through the village development fund described in Output 4.

Outcome 3 – Sustainable and inclusive market-driven partnerships established

Output *4:* Profitable investment in nutrient-sensitive, climate adapted agriculture.

49. *Activity 1. Strategic Investment Planning*. The Project will identify commodities that have investment potential and which are in compliance with the provincial socio-economic development plans (SEDPs). The selected commodities will be chosen based on having strong potential for: (i) the production of nutritious food; (ii) export and/or import substitution; (iii) involving rural households to undertake investments and thereby expanding their production/income and creating incremental jobs; (iv) engaging and organizing poor farm households; and (v) climate change adaptability. For each selected commodity, a Strategic Investment Plan (SIP) will be prepared by contracted national and international technical assistance (TA), including all potential activities within the value chains that are inherent in that particular commodity segment. The SIP will list the potential types of investments eligible for Farmer Organization (FO) and Public-Private Partnership (PPP) support and each type of investment will be accompanied with a realistic business model/financial analysis, necessary Investments/upgrading not directly supported by the PPP output, e.g. training of farmers, organizing farmers into groups, etc., as well as an analysis of other potential co-financiers.

50. As part of the SIP process, it will be important to analyse and understand the interactions between bio climate and soil type, as well as between agronomy, crop management, pests and diseases, and bio-climate. Information thus generated will allow for confirmation of which of the targeted commodities are best suited to specific localities within the project area, as well as allowing for identification of cultural practices related to land preparation, mulching, ground cover, intercropping, irrigation, fertilizer application, and other aspects of management that could enhance suitability. Appropriate adaptation measures (social, behavioural, technical, infrastructural) along the value chains should then be developed, including for storage and drying facilities. This should be done in a participatory fashion with smallholder farmers and resource users in the different localities, to allow for inclusion of local and traditional knowledge, and for cultural and gender-differentiated acceptability. Some of these adaptation options may have implications for road infrastructure and transportation.

51. In pursuit of linking agricultural commercialization with the nutrition initiative, the SIP study will also include a specific study on the feasibility of establishing a nutrient-rich child complementary food enterprise in Lao PDR[35]. The SIP will inform the VDP process and be used as the framework for inviting farmers to form production groups and calling entrepreneurs to express their interest for investing in the Project area. Terms of reference for SIP analysis are detailed in Appendix 4, Annex 4.

52. *Activity 2: Village development fund (VDF).* Under this activity, the Project will co-finance VDP-identified community and farmer group investment in profitable and sustainable nutrient-sensitive agriculture infrastructure and production.

(i). *Nutrition-sensitive, climate-adapted agriculture Infrastructure*. Under this activity, nutrition-sensitive agriculture production infrastructure, identified as part of the village planning process under Output 2, will be established through co-financed grants. Public infrastructure investment grants of between LAK 160 million (USD 20,000) and LAK 320 million (USD 40,000) per village, dependent on village population, will be available for infrastructure investments that provide public good benefits supporting the achievement of village food security and improved nutrition in an environment of climate change. Such investments could include, *inter alia*, irrigation, including multi-purpose village water supply and micro and drip irrigation, village roads, marketing facilities, soil and water protection (terracing, intercropping, agroforestry etc.), fish ponds and aquatic resource protection for sustainable harvesting, etc. In cases in which existing village infrastructure would need to be rehabilitated this would be given priority over new investments. In the case of irrigation development/rehabilitation, the Project will assist farmers to form water management associations and set water use rules with a view to avoiding water access conflicts, which often arise in upland areas during the dry season. The project will also explore technology and crop varieties for more efficient dry season water use. This could include low cost drip irrigation systems[36]. A negative investment list will guide community choices (See Appendix 4, Annex 2).

Irrigation development

The original proposal targeted (i) 60,000 women benefiting from 6,000 ha of (micro-irrigated) home garden development – this would represent 1,000 m^2 of home garden per beneficiary, which is unrealistically large, with most home gardens in the project area being <100 m^2; and (ii) 3,600 families in some 180 villages developing one hectare each of irrigated crop land – which is also unrealistic as the expert advice the Mission received indicated that, in mountainous villages, there is, on average, only 5-10 ha of potential irrigable land per village, not 20ha as proposed. Based on GoL and beneficiary requests, the design mission has taken a more demand driven approach to infrastructure development. While it is expected that participating communities will place a high emphasis on irrigation development, particularly on the upgrading of existing damaged or inefficient irrigation infrastructure and through dual-purpose village water supply systems, it is unlikely that the overly ambitious targets set in the GAFSP design document can be realized.

The implementation of the grant by the VITs will be consistent with international best practice community-driven development (CDD) procedures and IFAD safe guards as detailed in the PIM (See Appendix 4, Annex 1, Section E for details). Beneficiary contribution of total construction costs of public good infrastructure works will be at least 15% (in-kind), with the Project funding 70% and Government funding the remaining 15% through parallel investments. In-kind contributions will primarily be labour and construction materials. Cross-village public infrastructure investments at kum ban level could be

[35] This would be conducted in collaboration with other partners (e.g. the Clinton Health Action Initiative (CHAI) or GRET, which have successfully supported the establishment of such food companies in other countries)

[36] http://www.ideorg.org/OurTechnologies/IDEal_Drip_Technical_Manual.pdf; http://www.ideorg.org/OurTechnologies/IDE_DripAlbum.pdf

proposed as part of the planning process (e.g. joint access road). Detailed operation and maintenance plans will be included in proposals, and villagers must be willing and able to operate and maintain any infrastructure that will be built. Beneficiaries will also monitor outputs and outcomes at the community level. The value of in-kind contributions will be set through a Project Unit Cost Database which provides an average rate for building materials and unskilled and skilled labour, per district, based on what is commonly paid in the area[37]. Where infrastructure development can be managed through community force account procurement, the Project will pay for villagers skilled (technical staff hired by the community) and unskilled labour for infrastructure development. Voluntary land contributions could be considered as part of the communities' contribution. The Project will, where practicable, use community force account processes for community infrastructure investments, designed to create jobs for village youth and promote community ownership in its operation and maintenance. All major construction contracts will be supervised by an independent engineer. Where possible, the Project will partner with WFPs "Food for Assets" programme and with PRF II in developing rural infrastructure. In addition to community contributions, kum bans may also seek additional support from local government authorities, either in the form of cash or in terms of technical assistance, recurrent costs and longer-term maintenance support. Similarly, kum ban and districts may seek financial or technical support from other donors or international NGOs.

(ii). *Productive farmers' organizations.* To improve agriculture production and productivity, household nutrition and climate adaptation, the Project will support farmer groups/associations to: (i) establish innovative, sustainable, climate adapted, nutrient-rich food crop, animal protein production; (ii) to sustainably manage natural resources, including community-based forest management; and (iii) through post-harvest storage, processing and marketing facilities at village level. The project will encourage farmer group investment in the most profitable commodities for their location, with a view to achieving greater market power through higher volume production. The DAFO-ECO[38] will inform villagers on technical options, particularly concerning the implementation of the 4 priority agricultural interventions under the NNSPA. For women's groups targeting improved household nutrition, the project will finance 100% of grants. For gender disaggregated and mixed-gender farmers groups investing in income-generating activities (IGA), the Project will, on a competitive basis, co-finance 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) and not more than LAK 24,000 (USD 3,000) per group. Beneficiary co-financing will be through in-kind contributions as described above. Project-supported farmer groups must, in aggregate at kum ban development plan level, include at least 50 per cent female members, while individual groups must include at least 30%t of members from community-identified poor households [39].. All supported investments must demonstrate financial sustainability beyond the initial Project assistance. Up to 25% of the Project grant could be used by beneficiary groups to contract technical support from kum ban Technical Service Centres (TSCs), trained lead farmers or farmer organizations, civil society organisations or NAFRI, under performance-based contracts. The LFN will help coordinate farmer-to-farmer extension. Such groups could be facilitated by a Project-wide approach to farmer field schools (FFS). The MAF Department of Extension and Cooperatives (DAEC) is expected to provide a guiding role in the delivery of technical services. The IFAD Viet Nam's Competitive Small Grants Manual will inform the PIM concerning this component.

[37] Where relevant the SSFSNP would use the PRF Unit Cost Database.
[38] District Agriculture and Forestry Office – Extension and Cooperatives Unit
[39]Project experience in Lao PDR shows that, dependent on activity and community, some farmer group activities may be most successful if implemented through gender disaggregated groups. The project would therefore require a gender balance at the level of the KDP, rather than within individual groups, but each group, irrespective of its gender mix, would require 30% participation by community-identified poor households.

Where villages or village groups select CBFM investments, a simple participatory forest inventory will be used to assess the village forest resource, in which villagers and local DAFO staff work together to identify the current tree species composition in the village forest, 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.[40]. 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.

Service providers 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 will 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.

All agricultural or forest land used or managed by Project supported village groups/associations/cooperatives will be surveyed and land or forest use rights issued if they have not already been provided. Where appropriate, PAFO and PoNRE GIS units will be assisted to create GIS databases of CPFM areas.

53. In the absence of an effective cooperative law, new farmer cooperatives are not expected to form during the first 2-3 years of Project implementation. Subsequently, when the law is in place, famers engaged in profitable commodity production under Output 4, activity 2 will be encouraged to associate at kum ban or district level with a view to gaining competitive advantage. Grants of up to LAK 80 million (USD 10,000) will be available on a co-financing basis to assist farmer groups to organise collective enterprises covering, amongst others, input supply and product aggregation, storage, processing, marketing, branding etc. The cooperative will be expected to contribute a matching amount to the Project grant, including at least 30% in cash or loan. The DAEC will play a leading role in cooperative development.

Output 5. Linking Farmers to markets.

54. *Activity 1. Contract farming review*. The Project, supported by FAO's contract farming expertise[41] and drawing on in-country LEAP[42], LURAS[43] and PEI Phase II[44] experience and resources, will, through MAF-DAEC and the Ministry of Planning and Investment (MPI), review a sample of existing contracts across Project districts to assess the challenges and weaknesses of the

[40] Where villages are assigned community forest management rights, household timber extraction is limited to periodic house construction needs.
[41] UNIDROIT/FAO/IFAD legal guide on contract farming: http://www.unidroit.org/english/guides/2015contractfarming/cf-guide-2015-e.pdf
[42] Laos Extension for Agriculture Project
[43] Laos Upland Rural Advisory Service.
[44] Poverty Environment Initiative Phase II

current programme and propose adjustments to government legislation, regulations and implementation procedures underpinning contract farming agreements with a view to establishing fairer, more equitable and more productive contract farming agreements and programmes, benefiting farmer and investor alike. This will include technical assistance in support of: (i) improved contract farming policy, regulatory framework and contractual proceedings; (ii) the preparation of training material and training of District staff and farmer groups to strengthen their contract negotiation skills, and (iii) assistance to contract farming investors to link with Project-supported farmer groups.

55. *Activity 2. Public-private Partnership (PPP)*. Building off the SIP analysis and associated farmer group investment priorities, the Project will pilot the use of PPP to generate investments and job opportunities among rural enterprises and households, with particular attention to poor and women-headed households in the Project area. SSFSNP will catalyse private sector agro-enterprise and contract farming investments in the project area by co-financing up to 49% of investments that generate incremental markets and value addition for raw material, leading to incremental production and increased income and job opportunities among rural households. Applications with higher levels of own contribution will be assessed as more competitive. Up to 30% of a PPP grant could be used for capacity building purposes. Within this limit, the Project will co-finance up to 50% of the cost of (i) vocational training for enterprise staff and (ii) output/outcome-based contract farming extension contracts targeting improved commodity production and productivity that include at least 30% of poor and women-headed farm households. Extension services will, preferably, be delivered by the contract farming/input supplier investor staff, however, enterprises could also employ experienced farmers or third party technical advisors (e.g. TSCs, NGOs, Non-Profit Association (NPAs), NAFRI, etc.) to deliver such services. All training materials should be developed with a food security and nutrition perspective.

56. Only legally registered cooperative societies and companies of at least 12 months standing will be eligible to apply. Entities that are the subject of bankruptcy, criminal investigation, fraud, corruption or are in default of contractual agreements will be ineligible. PPP investments will be awarded on a competitive basis for capital investments in civil works, equipment (processing, packaging, energy generation or environment protection), transportation and marketing, related directly to the core activity of the investor. PPP investments approved by the National Project Steering Committee (NPSC) will be forwarded to IFAD for its no objection. Poor people's income and jobs, value added products, and productivity and market access and gender equality will be important criteria in investment proposal evaluation, together with commercial viability, environment impact and cost effectiveness assessments. The PPP programme will be underpinned by a technical, business management, accounting and Information Communication Technology (ICT) capacity building program for successful applicants with a view to improving their farmer service capacity, profitability and enterprise linkages, both at the local level and to upstream quality suppliers and markets.

57. Co-financing for contract farming investments will start at LAK 160 million (USD 20,000) as a minimum and reach up to LAK 400 million (USD 50,000) as the maximum. The beneficiary of such a grant will be expected to match the PPC grant with an equivalent amount in cash. The PPP fund will be managed by a competent and experienced contracted service provider with funds allocated through transparent and fair processes with disbursement tranches monitored closely and grants systematically audited. This Output will be reviewed at Project mid-term and scaled up if positively assessed. The PIM for this component will be informed by the IFAD Viet Nam Competitive Business Grant Manual.

D. Lessons learned and adherence to IFAD policies

58. 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 SSFSNP design listed in the COSOP document are the following:

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

59. Furthermore, SSFSNP takes stock of recent experience of FNML, RLIP, SNRMPEP and SSSJ[45], as well as of other projects and players involved in supporting food and nutrition security in Lao PDR including the World Bank (WB) supported PRF (e.g. the livelihood and nutrition pilot) and WFP MCH initiatives. Lessons include:

- Ensure the coherence of Project activities through regular, systematic bottom-up planning processes;
- Focus the planning on villages and kum bans and seek to reach the poorest, most vulnerable communities and households;
- Multiple rounds of assistance are necessary at the community level to achieve food and nutrition security impacts;
- Community nutrition initiatives must be financially sustainable and involve nutrition behavioural change and improved access to and availability of nutritious foods in equal measure
- There are opportunities to increase the technical quality of infrastructure and its subsequent operation and maintenance;
- Procurement procedures should be adapted to better meet community needs and capabilities (e.g. through CFA).
- 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.

60. The SSFSNP 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. The Project is aligned with the Lao PDR National Social Economic Development Plan, the Government's Strategy for Agricultural

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

Development 2011 to 2020, the National Climate Change Strategy" (2010) and the National Nutrition Strategy to 2015 and Plan of Action 2016-2020.

61. The SSFSNP will seek alignment and synergies with several national projects, including:

- The World Bank supported PRF project, with the objective of drawing on the PRFs experience in village/kum ban level bottom-up participatory planning and to achieve coherence with the Project's infrastructure investments;
- The World Bank supported PRF Nutrition Pilot (formerly called LONG now called LN), with a view to learning lessons from their community driven livelihoods approaches, in particular, their village nutrition center approach;
- The World Bank supported HGNDP aims to help increase coverage of reproductive, maternal and child health, and nutrition services in target areas in Lao PDR The Project focuses on reproductive, maternal, and child health and nutrition services. Over the five-year implementation period, the Project is expected to benefit approximately 1 million pregnant women, family planning users, and children age 0 to 23 months across 14 provinces. In addition, children in high priority nutrition districts will benefit from changed behaviours and practices of their caregivers, resulting from intensive SBCC.
- The FNML and SSSJ projects, drawing lessons from and, in the case of the SSSJ, seeking synergies with their nutrition convergence, agriculture diversification, market linkages and CC adaptation;
- The World Bank supported Lao Upland Food Security Improvement Project (LUFSIP), drawing on its experience with improving food security of rural households in selected poor villages in upland areas, in particular, its experience in demonstrating and implementing improved rice-based farming systems;
- Various NGO-led initiatives (SNV, CARE, GRET, etc.) for sustainable natural resource management and NTFP extraction and value addition;
- The Lao Upland Rural Advisory Services (LURAS) Project experience in supporting action research and developing farmer advisory services, particularly farmer-to-farmer services, and with developing farmer organizations;
- The World Bank Health Governance and Nutrition Development Project (HNP) aims to increase coverage of reproductive, maternal and child health, and nutrition services in target areas in Lao PDR. In particular, it will support the development of an integrated national strategy and implementation plan for social and behavioural change communication to improve nutrition, and its implementation at the national level and at the village level in selected priority districts.
- The JICA financed Project for Enhancing Capacity for Managing the Public Investment Programme (PCAP) that aims to strengthen the capacity of the MPI and DPIs to manage public investment projects by developing, revising, and disseminating forms, methods, and tools for assessing, monitoring, and evaluating projects; and through trainings of civil servants.
- The EU financed Lao PDR Global Climate Change Alliance Programme, which aims to mainstream climate change into the Government of Lao PDR's poverty eradication effort through promoting sustainable, climate-friendly and climate change resilient forms of agriculture and agroforestry and land and natural resource management.
- The WFP in relation to their mother and child nutrition and food for assets programmes;

III. Project implementation

A. Approach

62. The GoL has placed very high priority on accelerating progress in achieving the country's the Millennium Development Goal (MDG) targets relating to under-nutrition, which has remained stubbornly high in recent decades. The SSFSNP is one of the first development projects in Lao PDR to comprehensively address the agricultural constraints to good nutrition within the framework of the convergence approach under development through the NNSPA. The Project adopts GoLs "sam sang" development approach, wherein the province is the strategic unit, the district the planning and budgetary unit, and the village the implementing unit. Within this framework, the Project also applies a bottom-up participatory planning approach, which IFAD and other donor supported projects in Lao PDR have identified as being both sustainable and scalable.

63. The Project operates within the overall framework of the GAFSP, which is the principal financier of the investment, with IFAD nominated as the investment Implementing Agency and the WFP as the TA Implementing Agency. The GAFSP is a multilateral mechanism to assist in the implementation of pledges made at L'Aquila in July 2009, and reaffirmed by the Summit of the G20 in Pittsburgh in September 2009. Its purpose is to scale-up support to help poor countries alleviate poverty, improve rural livelihoods, and improve food security by raising agricultural productivity, linking farmers to markets, reducing risk and vulnerability, and improving non-farm rural livelihoods, and through technical assistance. GAFSP will complement ongoing efforts through other mechanisms to scale-up support to agriculture and food security.

64. The IFAD-supervised investment activities are detailed in Outcomes 1 and 3, while the WFP-supervised TA activities are detailed in Outcome 2. These respective outcomes are fully aligned and will be implemented in a complementary manner consistent with the overall sequencing of Project activities and the Project implementation timetable.

65. Nutrition has been mainstreamed into all three SSFNSP project components, so that each activity contributes to improved nutrition and that, together through synergies, the sum effect is greater than each individual part. The causes of malnutrition are known to cut across sectors. Simultaneous action on food, care and feeding practices (or, for adults, making good food choices), and access to good health care and water and sanitation are needed for greatest impact. Promoting convergence among interventions in these different areas is essential so that they arrive to the household at the same time. Managing the nutrition-related interventions in a holistic way will be critical for impact, even if they are part of different components. In addition, many of these ethnic groups are going through a transition in terms of their culture and livelihood strategies. The project takes this dynamism into account and focuses on providing households with the resources, tools, innovations and knowledge they need to make a positive transition in terms of income and nutrition security, while maintaining, the natural resource base and adapting to climate change.

66. The organizational and management structure proposed for SSFSNP will be based on the lessons learnt under previous IFAD 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 Project Steering Committees and Project Coordination Offices at national, provincial and district levels and their reporting systems; (iv) the SSFSNP should establish Memorandum of Understanding (MoU) with lead agencies outside the MAF before Project inception; (v) the Project capacity building interventions should focus on improving public services at the provincial, district and kum ban levels to ensure effective decentralization; and (vi) the Project 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 project planning, strategizing and implementation.

67. The Project will apply a nutrition lens to the agricultural interventions it supports, while recognising that nutrition behaviour change is a critical factor in reducing under-nutrition, particularly for mother and child during the 1,000 day period from conception to 2 years of age, as is improved household access to potable water, sanitation and hygiene. This complex set of constraints can best be addressed through "multi-sectoral prioritization and convergence" meaning the implementation of a set of high impact priority interventions in all villages of a selected set of districts that are targeted on the basis of poverty, food insecurity and malnutrition. To this end, in identifying the Project area, the design process has utilised a weighted matrix including the number of poor households, percent stunting, level of food security, road access and a measure of convergence to identify priority districts within GoL's list of 38 priority development districts.

68. In addition to improving household understanding of nutrition and access to and availability of nutrient rich crops and animal based protein for household consumption, sustainably sourced from both agricultural and forest land, the Project will also support post-harvest handling, food storage and safe, nutrition-enhancing food processing and preservation technologies, income generation activities and women's empowerment as indicated in the results chain framework shown in Figure 1.

69. Given the dispersed nature of villages in upland Laos the SSFSNP proposes to use the "Kum Ban Patina" Village Development Cluster as the planning base for its nutrition interventions. This approach has been adopted/adapted by the WB PRF II project and has been used by development partners elsewhere in Lao PDR. The Project will also invest strongly in improving district capacity to plan and budget, not just for project activities, but also to achieve a more convergent approach to development in the district. In adopting this approach, the Project, will, wherever possible and practicable, work through community and government agencies and structures, including the newly emerging DSEDCCs and District Nutrition Committees. Given that the institutional structures required to support project-linked participatory planning can be both extensive and expensive and typically exist only for the project life, the Project will, wherever practicable, contract the preparation and implementation oversight of VDPs to experienced third parties under performance-based contracts that include the transfer of responsibility to participating districts in a defined time scale. During the Board Meeting in May 2015, the PRF Governing Board (including the Vice Minister of Finance) approved the use of PRF participatory planning resources to support other development projects and several NGOs in Lao PDR have robust participatory planning systems and capacity.

70. The participating DAFOs and kum ban TSCs, with NAFRI support, will be empowered to assess and address issues related to the sustainable upland production of nutrient rich food in a changing climate environment. This includes establishing a sustainable business plan for participating TSCs. A range of innovative approaches will be taken for capacity building of SSFSNP 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, with a longer term view to cooperative formation; (ii) implementation of the Lao Extension Approach and development of farmer-to-farmer learning and exchanges; (iii) annual capacity development plans to raise the abilities of district departments to meet "sam sang" based institutional and development expectation and a fund for districts and provinces to "pull-down" experienced staff from higher levels for defined short- to medium-term assignments that will sustainably build local capacity; and (iv) knowledge management and dissemination through MAF and NNC Knowledge Platforms.

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

B. Organizational framework

72. The **Ministry of Agriculture and Forestry**, through its Department of Planning and Cooperation (DPC), is the SSFNSP lead agency that has overall responsibility for SSFNSP implementation, which it delegates to district administrations and to the National Programme

Coordination Office (NPCO) based in Vientiane The NPCO will be led by a National Project Coordinator (NPC) and include Project-financed financial and procurement management and monitoring and evaluation/knowledge management (M&E&KM) staff. Technical support will be provided by the DAEC, strengthened by a Project-appointed Chief Technical Advisor (int.) and national experts in gender, nutrition, and agribusiness development. A project-financed accountant would assist DAEC financial management. The PAFO assigned staff person will be the Project focal point at provincial level, supported by a Project appointed national M&E&KM specialist. The DAFO assigned staff person will be the Project focal point at district level, supported by a project recruited accountant.

73. The **Ministry of Health** The main role of the MoH is to ensure that the SSFSNP is aligned with the implementation of the NNSPA. For this, MoH will partner closely with the MAF, in particular for the 4 agricultural priority nutrition interventions. At operational level, MoH will be responsible for capacity building of Provincial and District staff from various sectors as well as of other service providers and, at District level, for the implementation of the FNS. MoH will also be tasked to provide regular technical backstopping (e.g. by assigning senior Provincial staff from PHO to visit target villages regularly) as well as to lead the coordination for the SBCC program. In this regard, MoH will commit itself to support SSFSNP by the assignment of senior staff to coordinate the aforementioned tasks. The persons assigned to work on SSFSNP will be required to regularly report to the NNC and to ensure that the SSFSNP is a learning platform for the national nutrition dialogue.

74. **District Agriculture and Forestry Offices** will serve as a focal point for technical support for SSFNSP activities. Under the SSFNSP, each DAFO will assign: (i) an officer to act at the District Coordinator; (ii) a DAEC coordinator and (iii) an accountant funded by the Project to (a) coordinate and consolidate planning and budgets for the preparation of AWPBs; (b) manage SSFNSP accounts for expenditure carried out at district level, and (c) prepare, semester and annual progress reports and financial statements. AWPBs, semester and annual progress reports will be validated by the DSEDCC or its local equivalent. Line agencies at district level will participate in the implementation of SSFNSP activities under their respective responsibilities. Two DAFO-based technicians who will provide technical support and assist in the implementation of Project activities. TSC staff will be supported through SSFSNP grants and farmer group contracts for technology testing and service provision respectively. District staff will be selected on a competitive basis and reflect gender balance, with a special effort made to select people who have command of ethnic languages.

75. The District Governor will send validated district SSFNSP AWPBs to the provincial level, where the PAFOs will review and consolidate them, prior to submitting them to the Provincial Project Steering Committee for approval. The Committee will review and approve them, and send them to the SSFNSP NPCO for financing.

76. **Kum ban "Pattana" Village Development Clusters** will be the focal point for coordinating bottom-up participatory village level nutrition-focused development planning with a view to taking a more holistic approach to the development of the scattered upland villages of Lao PDR.

77. **The NPCO**, based in the MAF-DPC in Vientiane, will assist MAF in carrying out SSFNSP implementation and will be fully accountable for the performance of Project implementation and the use of funds. More specifically, it will: (i) provide overall guidance and technical support to SSFNSP implementers, and build verifiable/measurable district capacities for SSFNSP implementation and coordination; and (ii) ensure overall coordination and programme management.

78. **Lao Women's Union (LWU)**. The LWU will play a key role in supporting SSFSNP women's empowerment and the development of nutrition programmes at village level.

79. **National Project Steering Committee**. The Secretariat of the National Nutrition Committee shall act as the National Project Steering Committee (NPSC). The NPSC will be responsible for overall project direction and, working within the framework of the NNSPA, for the convergence of SSFSNP activities with other agencies and development partners. It will provide guidance and oversight to participating provinces and districts, be responsible for approving SSFSNP AWPBs and progress

reports for submission to MoF and IFAD, and will be the final arbitrator on issues relating to project design and management. The NPSC will include representatives from MAF, MoF, MPI, MoH and Chamber of Commerce and the 4 provincial Governors/vice governors. The NPSC, which will be co-chaired by the Vice-minister, MAF and Vice-minister MoH, will rotate its half yearly meetings between Vientiane and participating provinces.

80. **Provincial Project Steering Committees**. At provincial level the Provincial Nutrition Committee will act as the Provincial Project Steering Committee. The PPSC will approve annual AWPBs and annual progress and financial reports prepared by participating kum bans and districts and approved by the respective DSEDCCs, or equivalent district committee. In addition to representatives of the Provincial Department of Agriculture and Forestry (PAFO), Department of Finance (DoF), Department of Planning and Investment (DPI), Department of Health (DoH), and Department of Industry and Commerce (DoIC), it will include provincial agri-business Lao Women's Union (LWU), Lao Farmers Network (LFN), international NGOs and civil society representation. The Provincial Governor or his or her designate will head the PPSC. The participating provinces will conduct PPSC meetings at provincial level on a semi basis. The PPSC will report to the existing Provincial Nutrition Committee as required.

81. At District level, the DSEDCC shall act as the District Project Steering Committee (DPSC).

82. Successful SSFSNP 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 VDP process, which will initiate the preparation of nutrition-focused women's empowerment and agriculture and natural resource-based production and value addition investment plans. Trained DAFO staff, supported by contracted service providers will ensure that the VDP planning process is genuinely representative and inclusive, as well as being consistent with government rules, policies and SEDPs.

Planning

83. **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 SSFSNP institutions and stakeholders. Its process should be completed through a participatory exercise at the village level to avoid top-down planning. In preparing AWPBs the SSFSNP will follow a defined process to allow sufficient time for consultation of relevant stakeholders at all levels.

84. 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).

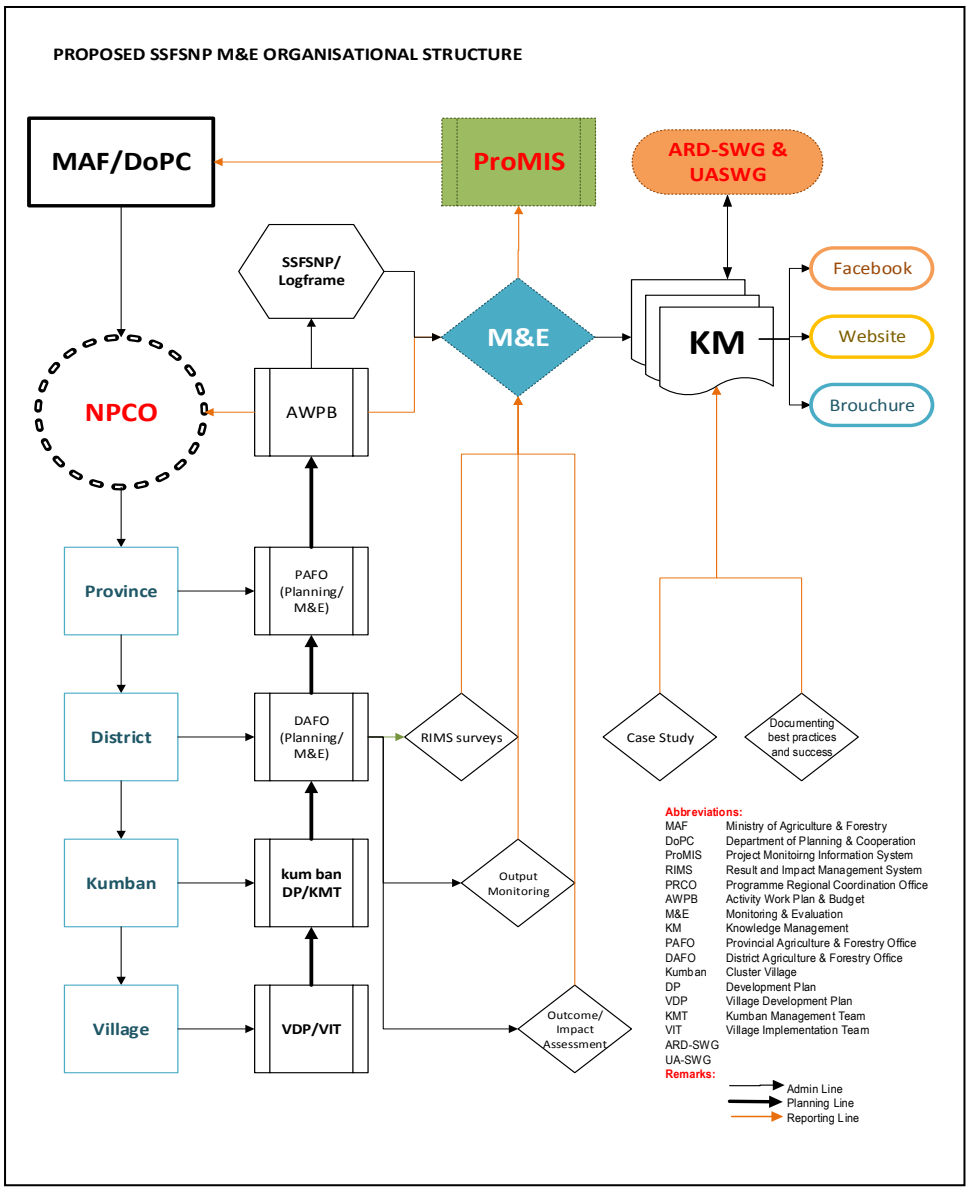
85. The PAFO will prepare draft consolidated provincial AWPBs for each Fiscal Year, based upon district level plans and AWPBs prepared by each DAFO/implementing agency for their respective section of SSFSNP implementation. Each draft AWPB will include, among other things, a detailed description of planned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

86. The NPCO will submit a draft consolidated AWPB to the NPSC for its approval no later than 90 days before the beginning of the relevant Fiscal Year. Once approved, the NPCO 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 from IFAD on the draft AWPB within 30 days after receipt, the AWPB shall be deemed approved. Annual stakeholder review and planning workshops will be organized for the assessment of annual programme progress and for the support of the AWPB preparation process.

87. The PAFOs, DAFOs and other implementing agencies will adopt the AWPBs substantially in the form approved by IFAD. If required by IFAD, the NPCO will propose adjustments in the AWPB with the approval of the NPSC. Such adjustments will be effective upon approval by IFAD.

Monitoring and evaluation

Figure 2: SSFSNP M&E/KM organizational structure



88. Building off a Project-strengthened MAF ProMIS system, the Project M&E system will be designed to: (i) guide Project implementation through the systematic collation and analysis of Project outputs and outcomes and assessment of Project impacts on poor HH nutrition and 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 M&E system will cover both the operational and financial aspects of the Project.

89. The Project M&E system will be designed to track and verify the levels of achievement of project outputs, the associated outcomes, and the success in achieving the project objective and its development goal. These levels are all causally connected as set out in the project Logical Framework. To a large extent, the M&E system will be participatory, involving the supported communities in data collection and management. The NPCO M&E officer will be responsible for developing and operating the management information system (MIS) and establishing and ensuring the M&E function, reporting and knowledge management. The Project M&E systems is detailed in Appendix 6

Learning and knowledge management

90. The Project knowledge management and learning (KM&L) processes will be designed to systematically identify, analyse, document and share Project knowledge with a view to strengthening project performance, supporting innovation dissemination, identifying issues to convey to policy makers and providing information to support up scaling.

91. In developing its KM&L programme, the Project will collaborate with the Lao Technical Working Group on Food and Nutrition Security, the Agriculture and Rural Development Sector Working Group, its Uplands Agriculture Sub-sector Working Group, and other development partners with a view to developing a Knowledge Platform on nutrition-rich upland agriculture. This process, managed by the DAEC, 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 SSFSNP 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.

92. Knowledge sharing is a continuous process and an integral part of the project management work. The Project will implement a dynamic programme of information sharing including: (i) close collaboration with the aforementioned Technical and Working Groups 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 nutrition-rich upland agriculture initiatives; and (iii) different forms and formats for dissemination of results including farmer-to-farmer and enterprise-to-farmer extension, learning events (workshops, technical "fairs" & exhibitions, etc.), and the costs for presentations of results at national and regional conferences and events. The SSFSNP NPCO will also commission a series of reports that capture and manage the SSFSNP development experience. These will include:

- *Documenting lessons learnt, best practices and cases of success:* The SSFSNP 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 nutrition-rich upland agriculture production. 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.
- *Developing and delivering a lessons learnt study*: Based on the information collected along project implementation, the SSFSNP KM Officer will develop both a mid-term and an end of project nutrition-rich upland agriculture Lessons Learnt Report, analysing the documented lessons learnt, best practices and cases. 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.

C. Financial management, procurement and governance

93. IFAD will be the GAFSP investment Supervising Entity and WFP will be the TA Supervising Entity. GAFSP funding will flow from the GAFSP account to IFAD and WFP in accordance with their respective mandates. IFAD will negotiate a financing agreement with MoF. WFP will negotiate a Memorandum of Understanding for Component 2 implementation with MoF. SSFSNP financial management will be governed by the Ministry of Finance (MOF) decree on the financial management rules applicable to Official Development Assistance grant funds[46], and in line with IFAD guidelines on financial management.

94. **Designated Account**: The GoL shall open a Designated Account (DA) denominated in US dollars in the Bank of Lao PDR for receiving and holding the grant proceeds. The Designated Account will be operated by the MoF and will be protected against set-off, seizure or attachment on terms and

[46] Decree 2695/MOF dated November 1st, 2010.

conditions proposed by the Borrower and accepted by IFAD, in accordance with the Financing Agreement and Section 4.04(d) of the General Conditions. The Borrower shall inform the Fund of the officials authorized to operate the DA. Upon fulfilment of conditions precedent to withdrawal and the Borrower's request, the Fund will make a withdrawal of USD 2 million from the Grant Account in the aggregate, and deposit such amount into the relevant DA. Subsequently, MoF will: (i) transmit Withdrawal Applications (WAs) to IFAD; (ii) receive IFAD replenishments into the DA; and (iii) transfer the funds from the DA to the Project Account (PA) based on the AWPB and replenishment requests. MOF shall ensure that funds required by NPCO are transferred without delay. NPCO will ensure that replenishment requests from implementing agencies are in order and that timely WAs are sent to IFAD (through MoF), with appropriate supporting documentation.

95. **Project Account**: The NPCO shall open and maintain an account denominated in LAK for project operations, the "Project Account". The Project Account shall be funded and replenished as necessary from the resources held in the Designated Accounts, upon request of the NPCO and in accordance with expenditures incurred under approved AWPBs. The NPC (with a co-signature) shall be fully authorized to operate the relevant Project Account. Project sub-accounts will be opened at the < subject to MoF approval, and at participating district level. KMT's will open accounts at district level.

96. **Statements of Expenditure** (SOE). For Withdrawal Applications for IFAD resources, the SOE facility will be applicable for all eligible expenditures up to a threshold USD 50,000 to all categories of expenditure cited in Schedule 2. Please note however, the Fund continues to reserve the right to request supporting documentation when required for inspection and verification.

97. **Financial** management. As custodians of funds in the Project Account, the NPCO will undertake the following financial management tasks:

(a) Ensure that project expenditure items and practices are consistent with those of the Government and IFAD;
(b) Ensure that Project suppliers and locally paid staff are paid promptly and adequately through liaison with Ministry of Finance and the IFAD Country Office staff;
(c) Ensure that Project expenditure is being coded correctly and consistently and that project funds are used solely for the purposes for which they were granted and in accordance with relevant IFAD guidelines;
(d) Establish an asset register for all assets purchased by or provided to the Project in line with standard IFAD policies;
(e) Check monthly Project financial report for accuracy and appropriateness, and ensure the Finance Manager is current with events concerning financial reporting issues, errors, trends, payment delays and related matters; and,
(f) Monitor expenditure on a monthly basis against the approved AWPB in order to prepare and send timely fund withdrawal applications to IFAD and review expenditure projections to ensure that expenditure stays within budget. Significant actual or anticipated expenditure variances against the budget should be included in the monthly report to line management together with any recommendations for changes to the budget.

98. The Head of Finance of the NPCO will be responsible for the actual management of these tasks, and will report to the NPC.

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

100. **Procurement** will be carried out in accordance with government regulations (Lao PH) and IFAD Procurement Guidelines. It will be finalised by the NPCO as an integral part of the NSLCP-FSP annual procurement plan. Procurement methods for work and goods packages under the NSLCP-FSP include (i) national competitive bidding applied for packages with estimated cost equivalent or exceeding USD 60,000; (ii) local competitive bidding applied for packages with estimated cost less

than USD 60,000; (iii) procurement with community participation or Force Account applied for infrastructure schemes that can use intensive un-skilled labour and simple techniques such as livestock water supply, forage fencing, livestock holding and loading facilities, etc. with the estimated cost of less than USD 30,000; (iv) direct contracting could be applied for very small packages with estimated cost less than USD 5,000. For efficiency, the procurement of equipment, service providers and consultants' services will be done by the NPCO, while the procurement of small value contracts for the procurement of goods and services will be done at the district level or by beneficiary communities. Service providers will be hired through renewable performance-based contracts.

101. IFAD no objection will be required 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.

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

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

D. Supervision

104. **Supervision.** The Project will be supervised jointly by IFAD and ADB. Annual supervision missions, followed initially by short follow-up missions six months later, will be organised jointly with the GoL and will include the main implementing agencies and programme stakeholders. Implementation support missions will be fielded based on specific needs. Supervision will not be conducted as a general inspection or evaluation, but rather as an opportunity to assess achievements and lessons jointly, to review innovations, and to reflect on improvement measures. Missions will therefore be an integral part of the knowledge management and learning cycle, with mission members playing a supportive and coaching role. To ensure continuity in this process, missions will be carried out by a core team of resource persons 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) sustainable nutrition behavior change; (ii) sustainable, nutrition-rich upland farming systems, (iii)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.

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

- The approach to livestock commercialization and investment planning at community and HH levels;
- the performance of sustainable livestock development technologies;
- the performance of farmers' organisations and the opportunity to develop second-tier marketing organisations;
- the performance of the multi-stakeholders' platforms;
- the progress in social inclusion and gender equity;
- the progress of government capacity in M&E (MAF ProMIS).

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

E. Risk identification and mitigation

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

Table 3 Project Risk and Risk Mitigation Analysis

Risks	Risk description	Probability of occurrence	Mitigation measures in programme 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 projects' experience in community participatory planning and incorporate into the SLPMG process clear criteria for identifying potential participating groups and sound establishment training Technical support and capacity building provided by DAFO/DAEC/TSC/F2F and contracted facilitators, 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 group development and financial services undermining	Medium	Mechanism of coordination would be stressed in related implementation guidelines; Related kum bans and SLPMGs would be involved in all the steps of preparation, implementation and supervision. Performance based contracting of skilled	

Risks	Risk description	Probability of occurrence	Mitigation measures in programme design	Comparative sensitivity analysis result (Proxy)
	implementation progress		F2F advisers	
	Elite capture of project investment funds and benefits	Medium	(i) targeted investment policies and planning; (ii) community empowerment, particularly women and youth and (iii) close planning, scrutiny and mentoring of all investments.	
Market	Lack of affordable and accessible livestock production advice and technologies 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	Low	Diversified livestock production and improved market information	
	Small volumes of aggregated production or low quality standards do not provide incentive for traders or PPP investors to work with the Project's targeted communities	medium	Support and train communities and Farmer Groups to aggregate production and improve quality	
Policy	Farmers are not treated as clients Climate change does not become a cornerstone in livestock 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 project knowledge management .	
Financial Services	NSLCP livestock credit would face the same type of problems in credit delivery and loan recovery as the previous, largely unsuccessful LDP credit operation. Smallholder livestock producers are too poor to save and borrow in village funds The formal banks and registered MFIs are not interested in rural expansion, even with the support of cheaper refinancing capital	Medium	With major investments in scheme re-design, target group selection and focused, professional training, the aim is to avoid the earlier encountered problems Pre-design reviews and mission findings indicate strong interest among the target group in safe, interest earning savings facilities and the related VF loan facilities. Various interviewed MFIs and mature VFs indicated significant interest to borrow for portfolio expansion. The proactive approach in the marketing of the ARF services is expected to raise the interest of banks, as has happened in other countries.	
Others	Natural calamities including flood and drought lower output of farm production	Medium	Improvement of productive infrastructures and adoption of climate-smart technologies and varieties to advance production season would help ease the risk; Access to meteorological and market info by farmers	

Risks	Risk description	Probability of occurrence	Mitigation measures in programme design	Comparative sensitivity analysis result (Proxy)
	Remoteness of upland villages and difficulty of access during rainy season	High to Medium	Promotion of F2F exchanges and FFSs in combination with SLPMG development	

IV. Project costs, financing, benefits and sustainability

A. Project costs

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

- **Project duration.** The NSLCP-FSP will have a duration of 5 years, starting in 2017;
- **Prices and costs.** Costs for the NSLCP-FSP have been inputted in US dollars in the NSLCP-FSP COSTAB file using data collected as of February 2016. Data were collected by the consultants in the field and with partners, or provided by the MAF NSLCP-FSP team**;**
- **Inflation.** The forecasts of the IMF, the World Bank and the Asian Development Bank estimate a continuing medium level of domestic inflation of between 5-6 percent. US dollar inflation is estimated at 2 per cent for the foreseeable future;

Table 4: Inflation rates (local and foreign)

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

- **Exchange rate**. The exchange rate of LAK 8,000/USD has been applied for the NSLCP-FSP costing;
- **Contingencies, taxes and duties**. All imported items attract custom duties: at between 10 per cent and 20 per cent for equipment and electrical goods, at 10 per cent rates for machines etc. Local taxes and VAT are assumed at 15 per cent for civil works. All services are taxed between 10 per cent and 20 percent. Income taxes are applicable to all categories of Technical Assistance at 20 per cent, while international TA under grant financing is exempt from taxes. Salary incomes above LAK 12 million are taxed at 10 per cent.

Project costs

109. **Total project cost**. The total cost for the NSLCP-FSP is estimated at USD 38.8 million (LAK 328.4 billion) including contingencies. The total base costs are USD 36.6 million (LAK 298.0 million). Physical and price contingencies account for USD 1.2 million and USD 1.0 million respectively (3.3% and 2.6% of the total base costs). Investment costs are estimated at USD 33.6 million representing 86% of total cost. The detailed breakdown of the base costs by component is shown in Table 5 and by expenditure account in Table 6.

Table 5: SSFSNP cost summary by components (in LAK million and USD million)

	(LAK Million)			(US$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
1. Strengthened public services	20,199	13,435	33,634	2,430	1,616	4,046	40	11
2. Community-driven, nutrition-sensitive agriculture interventions established	34,005	4,881	38,886	4,090	587	4,677	13	13
3. Sustainable and inclusive market-driven partnerships established	123,691	48,692	172,383	15,425	6,072	21,497	28	59
4. Project management	38,712	14,358	53,071	4,656	1,727	6,383	27	17
Total BASELINE COSTS	216,608	81,366	297,973	26,601	10,002	36,603	27	100
Physical Contingencies	7,844	2,089	9,933	948	251	1,199	21	3
Price Contingencies	16,074	4,502	20,576	742	209	951	22	3
Total PROJECT COSTS	240,526	87,957	328,483	28,291	10,462	38,753	27	106

Table 6: SSFSNP costs by expenditure account

	(LAK Million)			(US$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs								
A. Civil works	1,751	584	2,334	211	70	281	25	1
B. Vehicles	4,458	4,458	8,917	536	536	1,073	50	3
C. Equipment	1,055	2,461	3,515	127	296	423	70	1
D. Agri Inputs	7,928	2,471	10,399	954	297	1,251	24	3
E. Matching grant	106,344	45,576	151,920	13,293	5,697	18,990	30	52
F. Capacity building and learning	28,056	7,014	35,070	3,375	844	4,218	20	12
G. National Technical Assistance	33,100	-	33,100	4,027	-	4,027	-	11
H. International Technical Assistance	1,093	9,841	10,934	132	1,184	1,315	90	4
Total Investment Costs	183,785	72,404	256,190	22,653	8,924	31,577	28	86
II. Recurrent Costs								
A. Salary & allowances	23,861	-	23,861	2,870	-	2,870	-	8
B. Other operating costs	8,961	8,961	17,923	1,078	1,078	2,156	50	6
Total Recurrent Costs	32,822	8,961	41,784	3,948	1,078	5,026	21	14
Total BASELINE COSTS	216,608	81,366	297,973	26,601	10,002	36,603	27	100
Physical Contingencies	7,844	2,089	9,933	948	251	1,199	21	3
Price Contingencies	16,074	4,502	20,576	742	209	951	22	3
Total PROJECT COSTS	240,526	87,957	328,483	28,291	10,462	38,753	27	106

B. Project financing

110. Project cost by financier. GASFP will provide a grant of USD 30 million (77.4%). Local private enterprise is expected to contribute USD 0.5 million (1.1%). Village beneficiary contribution will be USD 2.9 million (7.5%). The Lao PDR contribution is estimated at USD 5.4 million (13.9%). The Government contribution covers taxes, duties and some rural infrastructure, land use registration, operational, and project management staff costs. Of the total GAFSP funding of USD 30.0 million, IFAD will manage USD 24.0 million and WFP will manage USD 6.0 million. The SSFSNP financing plan is shown in Table 7.

Table 7: SSFSNP financing plan by components,

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
1. Strengthened public services	4,248	94.3	-	-	-	-	-	-	258	5.7	4,506	11.6	1,718	2,530	258
2. Community-driven, nutrition-sensitive agriculture interventions established	4,997	91.8	-	-	-	-	-	-	444	8.2	5,441	14.0	681	4,316	444
3. Sustainable and inclusive market-driven partnerships established	16,132	74.0	1,800	8.3	434	2.0	2,900	13.3	523	2.4	21,789	56.2	6,120	15,560	109
4. Project management	4,622	65.9	-	-	-	-	-	-	2,395	34.1	7,017	18.1	1,942	5,068	7
Total PROJECT COSTS	30,000	77.4	1,800	4.6	434	1.1	2,900	7.5	3,620	9.3	38,753	100.0	10,462	27,474	817

C. Summary benefits and economic analysis

Summary benefits and economic analysis

111. The SSFSNP would, in aggregate, target a minimum of 400 villages or 34,000 households. Assuming a 60% success rate, the SSFSNP would lift around 20,400 households out of poverty by Project-end. The projected village and household entry into the Project are shown below in **Table 8**. Direct benefits would accrue to the communities through diversification of homestead food production, investments in agriculture related production infrastructure and farming system productivity improvements.

Table 8 - Village and household participation assumptions

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6
Villages						
Incremental	-	40	80	120	160	-
Cumulative	-	40	120	240	400	400
Participating households \1						
Incremental	-	2,040	4,080	6,120	8,160	-
Cumulative	-	2,040	6,120	12,240	20,400	20,400

\1 Assuming 85 households per village and 60% success rate

112. Illustrative models developed to assess the impacts of diversified production as well as the benefits of enhanced producer margins indicate significant improvements in net farm income and returns to labour (see Table 9 and Table 10). These models demonstrate the benefits of *inter alia* the introduction of small and micro-irrigation, including forage and cash crops into the crop rotations, improving upland and lowland rice production, introducing livestock enterprises such as fish and pigs, and establishing or expanding NTFP harvesting and processing activities.

Table 9: Indicative Returns Upland Farm Model

Indicator \1		Existing	New	Increment	% Increase
Net income	LAK '000	1,700	6,300	4,600	271%
	USD	200	800	600	
Farm Family Benefits after Financing \2	LAK '000	3,500	14,900	11,400	326%
	USD	400	1,900	1,500	
Returns per Family-Day of Labour	LAK '000	23	79	56	251%
	USD	3	10	7	

\1 A comparison of existing situation and that at full development.
\2 Includes the value of home consumption of rice, vegetables, fish etc.

Table 10: Indicative Returns Valley Bottom Farm Model

Indicator\1		Existing	New	Increment	% Increase
Net income	LAK '000	2,900	16,700	13,800	476%
	USD	400	2,100	1,700	
Farm Family Benefits after Financing	LAK '000	8,300	23,000	14,700	177%
	USD	1,000	2,900	1,900	
Returns per Family-Day of Labour	LAK '000	65	93	28	44%
	USD	8	12	4	

\1 A comparison of Existing situation and New at full development.

113. In Project districts, villages and households not directly targeted by the SSFSNP would benefit indirectly through improved capacities, methodologies, systems and technologies adopted within their community, kum ban and district.

114. **Economic viability.** Malnutrition and food insecurity remain high nationally, with stunting levels of children under five years, as high as 61 per cent in some provinces. The impact of this stunting is lifelong. Children who are chronically malnourished in the critical first thousand days, starting at conception, can suffer irreversible damage to their physical and mental development. Chronic under-nutrition has impacts on health, productivity, educational attainment, and income-earning, its redress is essential to sustained national economic growth.

115. The cost benefit analysis is based on the key connection between nutrition, education and income earning. The analysis compares the discounted stream of incremental expected lifetime income from the children from the targeted villages to the discounted stream of SSFSNP costs. It is assumed that interventions proposed under the project have an impact on the beneficiary children's ability to complete school with better educational results and thereby secure an ability to earn higher wages in their adult life.

116. **Economic indicators.** The overall SSFSNP project Economic Internal Rate of Return (EIRR) is 8.7 per cent. The estimated Net Present Value (NPV) at a 6 per cent discount rate is LAK 481,220,000 million (USD 60.153 million). The Benefit-Cost Ratio (BCR) of 2.92 indicating a return of approximately 3 dollars for every dollar invested. These results indicate that the project investments yield a positive rate of return. [47]

117. **Sensitivity analysis.** An increase in programme costs by 10 per cent will reduce the EIRR to 8.4 per cent, while a decrease in overall programme benefits by 20 per cent will result in an EIRR of 8.1 per cent. A one-year delay in benefits reduces the EIRR to 8.4 per cent and a two-year delay to 8.2 per cent. These impacts in combination do not reduce the EIRR to below the 6 per cent discount rate, indicating the robust nature of the investment.

D. Sustainability

118. The Programme 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 nutrient-rich upland agriculture development. This investment in public processes and capacity will ensure that this crucial element to enable a sustainable response to food and nutrition security will remain 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 Project provinces and districts.

119. 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 VDP, tailor-made technical responses and O&M.

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

121. 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 project activities where applicable;

122. 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 project

[47] A social discount rate of 6% is assume consistent with recent WB estimates. Source: World Bank Lao PDR Development Report 2010 Natural Resource Management for Sustainable Development, Background Paper, Wealth and Sustainability. http://siteresources.worldbank.org/LAOPRDEXTN/Resources/293683-1301084874098/LDR2010_Wealth_and_Sustainability.pdf Accessed 11.10.15

implementation period. The Programme design emphases developing the management and technical skills of stakeholders at all levels.

123. **Environmental impact**[48]. The SSFSNP focuses mainly on diversifying farming systems to include more nutrient-rich crops while improving the environmental sustainability of upland farming and strengthening its capacity to adapt to a changing climate. The envisaged activities will focus on the construction of small-scale community-based infrastructure, capacity building, nutrition behaviour change, 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 nutrient-rich upland agriculture, CC adaptation, environment protection and resource conservation will be introduced to the beneficiaries at the time the project support is offered, in association with community-based participatory planning, infrastructure building, and household- and group-based production programmes. The interventions related to the technical service support are to improve the capacity of farmers and, in turn, increase productivity in the Project area through introducing updated methods and technologies of nutrient-rich crops and livestock and CC adaptation that will upgrade the basis for environmental-friendly and nutritious climate-adapted 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.

124. Based on the above outlines of the expected scale of positive impacts and in contrasts to the relatively minor risks, the Project 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.

[48] A separate Social Environment and Climate Assessment Procedures (SECAP) Review Note has been prepared and is available in the Project Life File.

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[49]. The poorest groups in the lowlands are those who have been resettled from mountain regions. In terms of the UNDP multi-dimensional poverty index, 36.8 per cent of the population were multi-dimensionally poor in 2011/12, while an additional 18.5 per cent were near multidimensional poverty[50]. The intensity of deprivation in Lao PDR, which is the average of deprivation scores experienced by people in multidimensional poverty, was 50.5 per cent. Improved education and health have contributed to increased human development, which has grown by an annual average of 1.57% since 1980. The PDR's HDI value for 2013 was 0.569 — which is in the medium human development category — positioning the country at 139 out of 187 countries and territories: by comparison, Cambodia is ranked 137th. These achievements have happened against a challenging background comprising a multi-ethnic population scattered over a vast, often difficult to access terrain, and with a multitude of cultures and languages. Progress has, however, unevenly benefitted the population across the country. Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live. In upland areas, the national poverty rate is as high as 43%, compared with about 28% in the lowlands.

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

3. **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

[49] 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. The World Bank estimated the poverty head count ratio at national poverty lines in 2012 as being 23.2%.
[50] UNDP Human Development Index 2014

geography and on income levels. In 2007, it was estimated that only about one third of the rural population of Lao PDR was food secure. More worrying, it was found that malnutrition is as high today as it was ten years ago, with 44% of children under the age of five in the rural areas that suffer from stunting. Factors of vulnerability include: (i) *the loss of access to natural resources*, including land and forest resources, due to the development of concessions, resettlement operations as part of the government's policy of village consolidation, and the expansion of cultivated surfaces; (ii) *climatic changes, including extreme climatic events* such as floods and droughts, which are perceived to become more frequent and severe, and increased temperature, rainfall variability and late onset of rainy season, leading to crop losses and reduced productivity from livestock due to declining fodder availability; (iii) *declining soil fertility* due to government restrictions on shifting cultivation, which is not 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) and 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**. In terms of greenhouse gas emissions, Laos used to be a net carbon sink, however, due to rapid deforestation driven by both legal and illegal logging, commercial concessions and large mining and energy projects, combined with forest degradation linked to slash-and-burn cultivation, the country has now become a net emitter of greenhouse gases. A study on CC mapping for Southeast Asia, sponsored by the Economy and Environment Program for Southeast Asia (EEPSEA) ranked the Lao PDR as one of the most vulnerable countries in the region[51]. 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 Xieng Khouang, Sekong 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 droughts52. 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[53.] 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.

[51] Yusuf A. A. and Francisco, H. A., 2009, Climate Change Vulnerability Mapping for Southeast Asia, IDRCSIDA-EEPSEA-CIDA.
[52] Based on OFDA/CRED International Disaster Database.
[53] Ministry of Natural Resources and Environment, 2013, Second National Communication on Climate Change

6. Projected changes in Lao's climate show that mean annual temperatures are likely to increase by 1.4 to 4.3^{o}C 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.

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 draft 8th National Socio-Economic Development Plan (2016-2020), and the main thrust of addressing risks and vulnerabilities, which is part of the Agricultural Development Strategy (2011-2020); and it will promote synergies with the eight programmes of the Agricultural Master Plan (2011-2015), the National Disaster Management Plan (2011-2015) to create a more disaster resilient nation.

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	1. Strengthen the capacities of National Disaster Management Committees 2. Promote secondary professions to improve the livelihoods of farmers affected by natural disasters induced by climate change
Forestry	1. Continue a slash-and-bum eradication programme and a permanent job creation programme 2. Strengthen the capacity of village forestry volunteers in forest planting, caring and management techniques, as well as in the use of village forests
Water	1. Raise awareness on water and water resource management 2. Map flood-prone areas 3. Establish an early warning system for flood-prone areas, and improve and expand meteorology and hydrology network and weather monitoring systems 4. Strengthen institutional and human resource capacities related to water and water resource management *5.* Survey underground water sources in drought-prone areas 6. Study, design and build multi-use reservoirs in drought-prone areas

Public Health	1. Improve systems for the sustainable use of drinking water and sanitation. with community participation, in flood- and drought- prone areas 2. Improve knowledge and skills of engineers who design and build water and sanitation systems

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 (NSEDP), nearly USD 90 million worth of projects/activities related to water resources, environment, meteorology and hydrology were carried out in the country. Of this, nearly 90 percent related to water resources, and the rest to the environment as a whole. Most projects were supported by the Asian Development Bank (ADB), World Bank and Government of China. Important actors on climate change, food security and agricultural development in Lao PDR include AusAid, EU, World Bank, IFAD, World Wildlife Fund (WWF), Mekong River Commission (MRC), 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 Sayabouri 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 to climate change action centers on NAPA. It has provided technical assistance on Second National Communication to the UNFCCC, UNDP jointly with UNEP supports the Poverty Environment Initiative (PEI) which aims to build the long term capacity of the government to integrate environmental concerns in national development plans, investment management processes and poverty reduction strategies. FAO will shortly initiate a Global Environment Facility (GEF) project designed to facilitate an enabling institutional and policy framework to mainstream climate change.

GEF funds will be used to apply a climate smart land use planning process that identifies integrated land uses that mainstream climate resilience, adaptation to climate change, and improve soil conditions as the foundation of sustainable crop yields. Innovative forest restoration technologies with simple absorbable steps for local communities will be piloted to restore ecosystem services, adaptation and mitigation at the landscape level by developing a Climate Smart Agriculture Action Plan (CSA AP). Degraded agricultural and forest lands will be restored by developing integrated land uses that rely on crop diversification, crop rotation, the use of trees, sustainable use of natural resources, forest restoration, and integrated crop-tree-livestock farming systems.

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. 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. **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[54] led to the development of the Land and Forest Allocation (LFA) Programme, which recognized the rights of communities and individuals to use and manage resources. While potentially positive for forest custodians, the changing legislation frequently led to the loss of access by villages for *swidden* agriculture and non-timber forest product (NTFP) usufruct rights. In some cases, the resulting lack of alternative livelihoods after LFA and the loss of food security have forced some upland villages to relocate. Another issue is that LFA governing bodies at the local level may not represent the interests of those who are dependent on forest and forest products. Among the eight land types classified by the land law, the right to utilize forest land is prescribed by the forestry law in detail. Among these forest types, the forests for which the right to utilize can be granted to organizations or individuals are only degraded forest lands. While local people may have strong customary rights over forest lands and the rights to manage and utilize forest resources, they do not collectively own the land and cannot lease, transfer, sell, or use the land as collateral. In production forests, community members may work with local government authorities on conservation and management projects within the village boundary, including permission to collect and sell NTFPs and harvest timber for domestic use, but only in accordance with the regulations as adopted by the District Agriculture and Forestry Office (Article 28, Forestry Law). Despite these multiple constraints, there are

[54] 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

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.

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

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

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

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

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

22. The SSFSNP target group speaks various languages of the Austroasiatic family and, in-large, has not developed a written script. Most of the target villages are located on mountain slopes, but not at the peaks or ridges, however, in recent times, a growing number of villages have been established at lower elevations near rivers or roads. Their villages commonly range between thirty to seventy households, but can include up to 100 households. The main target group in the project area consists of ethnically diverse poor rural households of, primarily, Akha, Hmong, Khmu, Lue, Phong, and Phouthai ethnicity, with two primary sub-groups: (i) highly vulnerable food-insecure households (> 4

months' rice deficit p.a.) with limited capacity to enter into the market; and (ii) poor households that are moderately food-secure and have a greater potential to enter into the market. Both categories share a common livelihoods system based on rain-fed cropping, raising livestock, collecting forest products, and wage labour. Many households move between these categories on a regular basis, and many Project activities will be suitable for both sub-groups. For most of the target population, *swidden* rice cultivation is an important food source. A small field house is almost always built in the fields, and all or part of the family may sleep there for days during the farming season rather than walk back to the village every day. The relatively low yields of upland, *swidden* rice and the labour needed to keep weeds under control is the major constraint to expanding the area farmed. Corn, cassava, wild tubers, livestock and Non-Timber Forest Products (NTFPs) are important components of the diet to supplement a frequently inadequate rice supply. In addition to farming, they engage in hunting and gathering in the forests surrounding the village. Both women and men regularly collect bamboo and rattan sprouts, wild vegetables, mushrooms, tubers, and medicinal plants, the latter marketed by women. Fishing is common for some groups but seldom practiced by others, perhaps as a consequence of living in an upland environment distant from large streams.

23. 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.

24. 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.

25. **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[55]. 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.

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

27. 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.

28. Most of the banks present in the target regions are supplying financial services to the rural sector, however only Nayoby Bank (NB), a State-owned development bank, has branches in all of the target districts and provides short-term and medium-term loans to farmers and their groups at an interest rate between 5 per cent and 9 per cent. Portfolio growth is restrained by cumbersome procedures that are not well adapted to agricultural activities and are the cause of excessive delays in releasing funds. Due to high interest rates and limited outreach in rural areas, microfinance institutions do not constitute adequate partners for farmers. Furthermore, due to their limited resources, problematic governance and high interest rates, village banks are ill-prepared to finance agricultural activities and rather tend to specialise in emergency and social loans and in the financing of petty

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

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.

29. 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.

30. **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 (NSEDP) and the National Growth and Poverty Eradication Strategy (NGPES) are the main policy documents that outline the country's strategy to eradicate poverty. Poverty reduction efforts are focused on the 72 poor districts, which are to benefit from community-driven access-oriented rural development. Key targets for the draft 8th NSEDP (2016-2020) include: (i)ensuring an annual GDP growth rate of at least 7.5%; (ii) GNI per capita higher than US$1,574 by 2018 and at or higher than US$ 1,810 by 2021; (iii) total poverty reduced to 15% and household poverty rate to less than 7% by 2020; (iv) enhancing international trade and economic cooperation and achieving full international integration; (v) 70% forest cover by 2020; and (vi) livestock production increasing by 6% per annum and fisheries between 8% and 10% per annum, with livestock forming 30% of AGDP by 2020. MAF's Strategy for Agricultural Development (2011-20), which was prepared with IFAD, ADB and other donors' support, aims at ensuring a successful transition from subsistence to sustainable, market-oriented smallholder agriculture. This should be achieved by: (i) transferring modern technologies for increased productivity, high quality production and value-added 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.

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

32. Subsequently, the Law on Local Administration was approved by the National Assembly in October 2003 to give stronger backing to the policy shift towards decentralization. It outlines the basic principles concerning the organization, working methods and functions of the local administration at provincial, city, district, municipal and village level. A significant innovation (relative to Party

Resolution no. 21 that was piloted from May 1993 and sanctioned by the Law) is that it allows for the creation of embryonic consultative bodies at Village and District level (regular Village and District "meetings"), as a first step to opening up the local service delivery, planning and public expenditure management process to people other than local officials. Additional legislation includes Recommendation 475/MF, which is almost entirely devoted to allocating revenue collection and expenditure management responsibilities for the provinces, districts and villages.

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

34. Horizontal adjustments among provincial/Capital and district-level sector departments/offices are made with the instructions from the Governor. Public investment projects that are needed to achieve the provincial and district level SEDPs are listed, and projects are prioritized within the list. The Government issues the Prime Minister's Decree and MPI Minister Instructions every year to announce the implementation of the annual NSEDP in the following year. However, since the capital budget ceiling is not determined at the time of SEDP formulation, prioritization is not strictly conducted within the list.

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

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

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

38. Overall, although important progress has been made in piloting participatory planning systems, and in developing standardised procedures under the guidance of the Ministry of Planning and Investment, Instruction 01/PM is only partially implemented. In particular, there is a need for improved clarity regarding the roles of civil servants working at Province and District levels, particularly in the delivery of services. Moreover, though there have been important and iterative moves towards decentralisation, village plans are prioritised at district level, screened at the province and eventually budgets are aligned with strategies developed at the National and Provincial levels, in accordance

with the principles of governance of the Lao PDR. Thus, in general the system remains primarily driven from the top-down; with priorities set at lower levels screened, filtered, and eventually funded according to higher level strategies and decisions.

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

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

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

(a) Formulation of policy initiatives to strengthen public administration including civil service;
(b) Preparation of strategies, methodologies and implementation plans for the above;
(c) Training and capacity building to support implementation; and
(d) Implementation support, including equipment and infrastructure.

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

43. **The District Development Fund** (DDF) initiative, piloted in Saravan and subsequently scaled up in four other provinces (Xiengkhuang, Huaphan, Oudomxay and Sekong) has introduced public expenditure management systems that have significantly improved the capacity of the districts to manage expenditure and plan for small scale investments that have a direct impact on improved service delivery (e.g. the building of a village school or the renovation of a community market).

44. Supported by the UNDP and UNCDF through the National GPAR Programme Secretariat Support Project (GPAR NGPS), the Block Grants Programme on Governance, working with the MoPI and the Rural Development Office, has established operational procedures for the District Participatory Planning and Budgeting Process and the District Block Funds. The outputs of these procedures include District Development Plans, and District Investment Programmes. The investment programmes are used as the basis for the preparation of the annual budgets of District authorities. The planning process is participatory and plans are developed on the basis of priorities identified by local communities. Districts will receive allocations from a District Block Fund that will be used to partially fund the District Investment Programme.

45. Under the DDF, technical capacities of district administrations have improved. The combination of training and on-job-learning has transformed and empowered both provincial and district staff, to carry out tasks hitherto addressed through projects and consultants. District personnel are now able to prepare 3 year plans and annual investment plans in a participatory manner; prepare basic costing and technical feasibility reports, and tender evaluation in a systematic and transparent manner. Local administrations have been able to adopt the National Accounting System (NAS), effective operation of bank accounts, cash management, payments, reporting and internal controls. This is evidenced by the degree of compliance achieved by local administration to the new management procedures that govern the disbursement of funds under the DDF, as well as other similar GPAR initiatives such as the Service Delivery Fund in Luang Prabang.

46. **Ministry of Agriculture and Forestry**. The main role of the MAF is to manage the development of agriculture and forestry for food security and for the production of commodities for processing industries, in line with the Strategy for Agriculture Development (2011-2020). It is responsible for providing strategic orientations to the sector, developing the policy, legal and regulatory framework, promoting investment and ensuring overall coordination. Implementation responsibilities are carried out at provincial and district levels, in line with the government's decentralisation policies. Provincial Agriculture and Forestry Offices (PAFOs) are responsible for providing overall guidance and support to DAFOs, disseminating technical information, promoting innovation and organising input delivery. An organogram of the MAF is detailed in Figure 3 below

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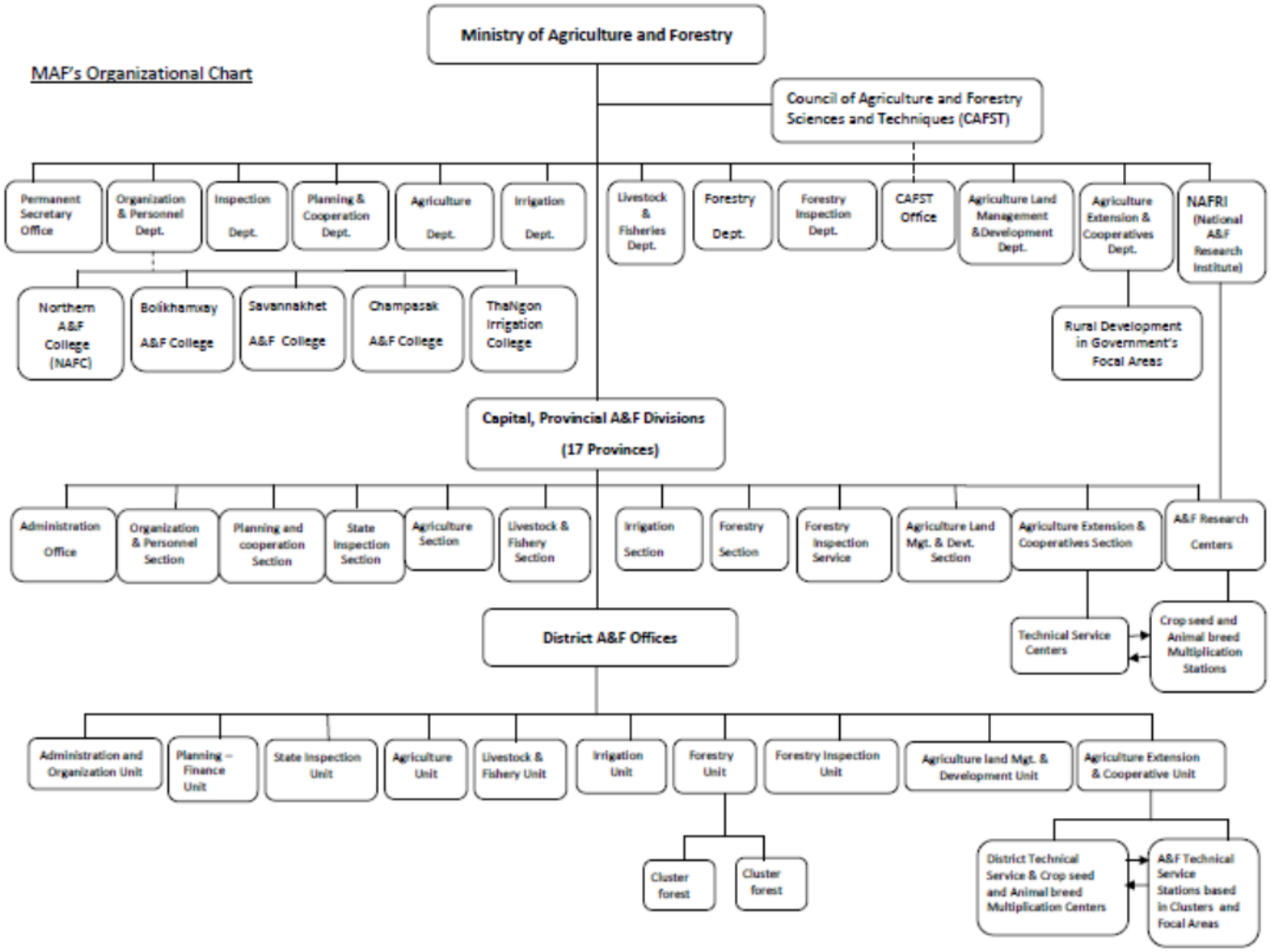
Figure 3 Ministry of Agriculture and Forestry Organogram



Appendix 2: Poverty, targeting and gender

POVERTY CONTEXT IN THE TARGET AREA

1. High growth has resulted in a steady decline of poverty in Laos, which dropped from 46% of the population in the mid-90s to 27.6% in 2008[56]. The poorest groups in the lowlands are those who have been resettled from mountain regions. In terms of the UNDP multi-dimensional poverty index, 36.8 per cent of the population were multi-dimensionally poor in 2011/12, while an additional 18.5 per cent were near multidimensional poverty[57]. The intensity of deprivation in Lao PDR which is the average of deprivation scores experienced by people in multidimensional poverty, was 50.5 per cent. Improved education and health have contributed to increased human development, which grew by an annual average of 1.57% since 1980. The PDR's HDI value for 2013 was 0.569— which is in the medium human development category—positioning the country at 139 out of 187 countries and territories: by comparison, Cambodia is ranked 137th. These achievements have happened against a challenging background comprising a multi-ethnic population scattered over a vast, often difficult to access terrain, and with a multitude of cultures and languages. Progress has, however, unevenly benefitted the population across the country. Poverty and extreme poverty are most common in mountainous regions, where the majority of the country's ethnic peoples live. In upland areas, the national poverty rate is as high as 43 per cent, compared with about 28% in the lowlands.

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

3. The project detailed design mission has prepared a matrix to help identify the most food and nutrition insecure districts in Lao PDR. The mission used 5 key indicators: (i) Poverty incidence, measured as the total number of poor households per district, (ii) Percent stunting in the population; (iii) road access, where the % of villages with no roads is taken as a negative indicator; (iv) food insecurity (measured as rice production per capita, again taken in negative); and (v) programme convergence, which included scores for WB, ADB, IFAD, WFP, bilateral donor and NGO programmes at district level with the district score measured as a percentage of the district with the highest score. To give proper scoring balance, the analysis uses their interval from the indicator mean, rather than their absolute value; and standardizes that interval by the overall deviation per indicator, rather than by their mean- which corrects better for the different scales. To exclude urban districts, those with population densities greater than 70/km2 were excluded from the ranking. For 5 "new" districts, where poverty scores were not available, the provincial average was used.

[56] 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. The World Bank estimated the poverty head count ratio at national poverty lines in 2012 as being 23.2%.
[57] UNDP Human Development Index 2014

4. The MAF/MoH selected Project districts are detailed in Table 1 below. The justification for the selection of Kham and Nonghet districts in Xieng Khouang province, where the poverty level appears to be low, is detailed in Annex 3.

Table 1 – Project provinces and districts

Oudomxai	Phongsaly	Xieng Khouang	Houaphan
• Namor • Lah	• Mai • Boun-Tai • Samphan • Khua	• Kham • Nonghet	• Huamuang • Xam-Tai • Kuan • Xon

5. The SSFSNP will be implemented in 12 districts in four Provinces:

Table 2 – Key statistics in Project districts

Province	District	Number of *kum ban*	Number of villages	Number of poor villages	Population	Households (HH)	Poor households	% of poor HH
Houahpan	Huamuang	10	76	51	12,618	5,029	1,923	38.24
	Xam-Ta	13	90	48	38,254	5,833	1,626	27.88
	Kuan	9	68	62	24,607	3,604	1,670	46.34
	Xon	5	34	24	15,913	3,711	1,091	29.40
Oudomxai	Namor	9	62	30	39,065	6,772	2,043	30.17
	Lah	7	44	25	17,166	3,383	856	25.30
Phongsaly	Mai	10	85	68	26,419	5,453	2,259	41.4
	Buon-Tai	8	61	33	24,185	5,446	2,084	38.3
	Samphan	10	69	57	24,328	4,420	2,169	49.1
	Khua	8	91	50	27,328	5,826	1,019	17.5
XiengKhouang	Kham	7	90	24	46,150	8,174	222	2.72
	Nonghet	10	106	45	35,649	5,749	240	4.17

Source: data provided by district administrations, October 2015

6. **Ethnic groups.** The estimated national and ethnic group populations in the four Project provinces are detailed in Table 3, below

Table 3: Main Ethnic Groups (EG) in Project Provinces

Province	Total Pop.	EG %	EG Pop.	% and No. Lao Tai		% and No. Mon-Khmer		% and No. Sino Tibetan-Burma		% and No. Hmong-Lewmen		% and No. Others	
Houaphan	340,828	44.4	150,345	55.7	66,283	20.3	28,812	0.0	38	23.1	34,628	0.0	13
Oudomxai	229,110	78.5	253,177	20.6	54,281	60.5	150,584	5.7	10,466	12.3	35,340	0.0	156
Phongsali	180,996	80.4	145,203	18.9	25,198	20.7	31,240	53.6	78,921	6.1	8,811	0.0	0
Xieng Khouang	263,465	51.3	129,540	48.0	55,326	10.0	15,037	0.1	120	41.2	58,115	0.0	0

Source of data: Population and EG estimated for 2014by DPIC, MoH

7. The 12 Project districts, are host to a large diversity of ethnic people, as shown in **Table** 4

Table 4: Main ethnic people in target districts

Main ethnic people in Project districts				
Province	**District**	**Most populous**	**2nd most populous**	**3rd most populous**
Houahpan	Huamuang	Phong	Khmu	Hmong
	Xam-Ta	Lao Tai	Hmong	Khmu
	Kuan	Lao Tai	Hmong	Khmu
	Xon	Lao Tai	Khmu	Hmong
Oudomxai	Namor	Khmu	Lao Tai	Hmong
	Lah	Khmu	Akha	Lao Tai
Phongsaly	Mai	Khmu	Lao	Phoutai
	Buon-Tai	Lue	Khmu	Phounoi
	Samphan	Akha	Khmu	Hmong
	Khua	Akha	Lao	Khamou
Xieng Khouang	Kham	Lao Tai	Khmu	Hmong
	Nonghet	Hmong	Khmu	Lao Tai

Source: data provided by district administrations, September 2015

Rural livelihoods[58].

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

9. 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 on uplands, and over smaller surfaces on paddy fields. It is destined to home consumption, covering 4-9 months of household needs on average[59]. Upland grown maize and cassava are used both as a food crop and as a cash crop, which is dried and sold in small quantities. Livestock rearing (cattle and small animals) is used as a cash buffer in some the villages to complement the family's diet.[60] NTFPs include a wide range of products that contribute to the daily diet and are either collected (bamboo shoots, mushroom, medicinal plants, insects), hunted (game and fish), or sometimes cultivated (bong, cardamom, broom grass) for sale. Additionally, in some cases both men and women sell their labour, including on distant commercial plantations where they spend several months living in camps. In the lowlands, farmers have a similar diversified range of activities but with a larger access to paddy fields, mostly rain-fed and with low fertility soils, where they

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

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

cultivate rice (with average 3-6 months' shortage), sugar cane, rubber and vegetables. They have less access to NTFPs as forest resources have been considerably reduced and their livestock 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 labour. While there is a Nayoby Bank agency in every district capital, poorer families are reluctant to take loans as they fear they will not be able to pay back.

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

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

12. Given the rising pressure on the natural resource base and associated falling productivity of *swidden* agriculture, upland farmers are increasingly attempt to acquire paddies, which provide higher more sustainable yields with less work expended. Moreover, they represent an economic resource with the potential of providing collateral and provide the additional benefits of reducing forest destruction and encouraging settlement. Their accessibility, however, is constrained by the lack of suitable land in upland areas (which is often overestimated by local administrations), limited dry season water supply and their cost. *Low technology drip irrigation systems, now well established in Cambodia, India, Nepal, Myanmar and a number of African countries may offer a viable alternative to paddy land for achieving agricultural diversification and/or addressing dry season water shortages.*

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

14. Contract farming began in northern Laos in the mid-2000s after Chinese farmers and firms began renting paddy fields that were not being used in the dry season from Lao owners in order to plant cash crops such as watermelons. Contract farming can be classified into two main types: (i) a "1+4" model where investors take over management of a plantation for several years., while villagers contribute only land, in exchange for 30% of the future plantation profit, and current wages if they also choose to work for the company as labourers; and (ii) a '2+3' model, whereby the farmers contribute land and labour, while investors contribute inputs, technical advice and access to markets. Investors

typically negotiate contracts at district level with local DAFOs and DPIs, with variable involvement of participating farmers. While contract farming can be beneficial to smallholder farmers, there are numerous pitfalls and they work best where investors establish long-term relationships with their suppliers and encourage vertical integration. Contract farming in Laos could be strengthened through: (i) increasing farmer's capacity to understand and assess contracts; (ii) enabling farmers to form groups for improved contract negotiation, technical and marketing capacities; (iii) supporting the development of policies and regulations that favour long-term, equitable commitments between investors and farmers; (iv) building the capacity of investors to manage their businesses and establish longer term goals, strategies and relationships; and (v) building the capacity and mechanisms for provincial and district officials to monitor and regulate contract arrangements rather than act as an intermediary between the private sector and farmers. These areas of opportunity will be addressed under SSFSNP.

15. Government is supporting this evolving agricultural economy through five main "push" policies including (i) shifting cultivation stabilization; (ii) eradication of opium production; (iii) land use planning and land allocation; (iv) village consolidation; and (v) increasing forest cover. Supporting "pull" factors include growing regional agriculture trade, rising foreign direct investment (FDI), particularly in contract farming systems and increased domestic demand, driven by strong GDP growth. Together, they have led to reduced poverty and shifting cultivation, however, they have also restricted upland farmer access to the natural resource base, while placing few restrictions on private investors, and have led to unsustainable land use practices. These negative outcomes are exacerbated by weak monitoring systems and the diverse interpretation of government rules and guidelines at the local level. These negative impacts can be best addressed by: (i) improved regulation and management of FDI (particularly contract farming in northern provinces) to reduce negative environmental impacts and result in more equitable development; (ii) more adaptive policy that allow for specific interventions in different locations; (iii) more secure land use rights for poor households together with more coherent land use planning system; and (iv) improving farmers access to government and private services, production inputs in support of increased diversity in agriculture production, value addition and more off-farm options. The SSFSNP will support initiatives in all of these areas.

16. **Main ethnic people in the project districts** include the Akha, Hmong, Khmu, Phong, Phou Thai, and Tai-Lue people.

- **Akha** people live in small villages at elevations from 600 to 1000 meters in the mountains of Laos, Thailand, Burma and Yunan province of China. The Akha speak a tonal language in the Lolo/Yi branch of the Sino-Tibetan family. Akha has no written alphabet. Originating in Yunan province, they have migrated to Laos within the last 200 years and now form a community of about 66,000 people, primarily living in Phongsali, Luang Namtha, Oudomsai and Borkeo provinces. Akha society lacks a strict system of social class and is considered egalitarian. Respect is typically accorded with age and experience. Ties of patrilineal kinship and marriage alliance bind the Akha within and between communities. Akha dwellings are traditionally constructed of logs, bamboo, and thatch and are of two types: "low houses", built on the ground, and "high houses", built on stilts. The semi-nomadic Akha, at least those who have not been moved to permanent village sites, typically do not build their houses as permanent residences and will often move their villages. The Akha have traditionally employed *swidden* agriculture and grow a variety of crops including maize, cotton, soybeans and vegetables. Dry-land rice is the most significant crop and is prominent in much of Akha culture and ritual. They also raise livestock including pigs, chickens, ducks, goats, cattle, and water buffalo to supplement their diets and to use for their secondary products. The Akha are also skilled foragers, for wild fruits and vegetables, and hunters. Akha religion — *zahv* — is often described as a mixture of animism and ancestor worship that emphasizes the Akha connection with the land and their place in the natural world and cycles. The annual ritual cycle

consists of nine or twelve ancestor offerings, rice rituals, and other rites such as the building of the village gates. The most important and revered position in Akha spiritual matters is given to a village leader, whose ritual responsibilities include initiating the annual rebuilding of the village gates and the swing as well as advising and instructing villages on important matters and settling disputes. The Akha put a heavy emphasis on genealogy, with males expected to recount their lineage back over 50 generations. If a male and female Akha find a common male ancestor within their last six generations, they are not allowed to marry.

- **Hmong** people lived in China for 2000 years before beginning to migrate south in the 1700s and can now be found in China, Viet Nam, Laos and Thailand. Many Hmong people also live in America. The Hmong groups in Laos, from the 18th century to the present day include the Black Hmong (*Hmoob Dub*), Striped Hmong (*Hmoob Txaij*), White Hmong (*Hmoob Dawb*), and Green Mong (*Moob Leeg*/*Moob Ntsuab*). The Hmong culture usually consists of a dominant hierarchy within the family. Males hold dominance over females and thus, a father is considered the head in each household. In marriage the bride joins her husband's household. Hmong practice shamanism and ancestor worship and, like other animists, believe that all things are endowed with spiritual beings and thus should be respected. Hmong society is organized through a number of patrilineal clans with Chinese surnames such as Li, Wang, and Yang and surname exogamy, or out marriage, is still strictly observed. Traditionally they practice subsistence agriculture, supplemented by hunting and some foraging. Although they have chickens, pigs and cows, the traditional staple of the Hmong consists mostly of vegetable dishes and rice, with animal slaughter largely reserved for religious occasions. In recent times, following the prohibition of *swidden* farming, many have turned to the permanent-field cultivation of crops such as corn or the gardening of flowers, fruits, and vegetables, which they sell in lowland markets.
- **Khmu** people, whose population in Laos totals about 500,000, are from the Môn-Khmer ethnic group and are indigenous inhabitants of northern Laos, who, over the last 200 years, have been forced into higher areas by successive Mon and Khmer empires and the later arrival of various Tai peoples. The Khmu form the largest ethnic group, outnumbering even the Lao, in the five Northern provinces of Luang Prabang, Phongsaly, Oudomxiy, Bokeo and Luang Namtha. The Khmu are divided into 5 subgroups called "*tmowy"* which are differentiated primarily by location and dialect. The Khmu language belongs to the Austro-Asiatic language family, however, the Khmu also tend to be fluent in the language of the culturally dominant group of their area. They are an agricultural society, although gathering, hunting, trapping and fishing are parts of the Khmu lifestyle. Khmu crops include rice (especially white and black sticky rice), maize, bananas, sugar cane, sesame and a variety of vegetables. They tend to own small, not large livestock. Most of the agricultural work in Khmu villages is done communally, so as to combine the strength and finish the work quickly. Harvesting of wild rice is generally performed by the village women. Khmu elders, including the shaman, the medicine man, the priest (based on family lineage of priesthood), and the village headman (now chosen by the Laotian government) are traditionally the most important people of the village, and are responsible for resolving all village disputes. Animism and beliefs in spirits of the living and dead are the main features of the Khmu religion. According to the animistic practices of the Khmu, reverence is offered to the house spirit *Hroi gang*. Villagers believe that a Khmu house, village, and its surroundings are integrated with the spirits of the land, and so houses and villages are considered holy or ritualized spaces, protected by a totem that safeguards the family.
- **Phu Thai** people in Laos number about 150,000 and speak Phu Thai, a Lao subgroup of the Tai linguistic family. The Phu Thai farm both lowland valleys where they cultivate wet

rice, making use of irrigation and terraces like the Lao, however, they also practice *swidden*, farming and keep mostly small livestock. They are also known for their fine quality hand-woven silk made with unique, colorful designs. Their villages are usually small, ranging from 20 to 30 houses, and are located within walking distance of related kin groups. Houses are usually made of wood or bamboo and built on stilts, with farmlands adjacent to the residential areas. Phu Thai society is organized on the basis of age, occupation, wealth, and type and place of residence. Rural farmers are ranked below the craftsmen, merchants, and city government officials; and clergy are a separate group. Phu Tai marriage customs are distinct from those of their Thai and Lao neighbors, with divorce rare, in line with their strict moral ethics and standards.

- **Phong** are a small group ethnic group based in Xiang Khouang and in western parts of Nghe An province in Viet Nam. The practice both irrigated and *swidden* agriculture growing rice, vegetables, fruits and spices, and maintain small and large animals, the latter for ploughing. They supplement their diet through both hunting and gathering. As a small group of just a few hundred people, the Phong tend to integrate into larger, neighbouring Tai communities. Traditionally they elect their own headman who represents their interests in negotiations with the Tai communities in which they reside. Their social structure is patriarchal, with women having no inheritance rights. They are animists and believe in the sam array of spirits as their Tai neighbours, with the most protective spirits being those of the village, land and house.
- **Thai-Lue** people inhabit many villages of northwestern Laos in the Nam U Valley, and along the Tha and Beng Rivers. Most are farmers living in river valleys where they grow wet rice for both consumption and sale. They are also good fishermen and renowned silver smiths. Tai Lue villages are located either on raised ground surrounded by rice fields, or on high ground on either side of a road or pathway. Their houses are often the characteristic Thai "pile" dwellings, with floors made of split bamboo and straw thatched roofs. They practice Theravada Buddhism mixed with animism with each village having a temple and the people putting great emphasis on reincarnation. he Tai Lue have both an old and new script of their language, but generally only boys who go to temples as monk novices learn to read and write the script.

17. **Remote ethnic women and livelihood practices**. Women do most of the farm work (planting, weeding and harvesting crops), tend small livestock and collect NTFPs (men occasionally hunt wild animals in some villages). Hard work is associated with women's virtue, reinforced by the cultural norms that good women are strong, dutiful and do not complain[61.] In various surveys, over 70% of female farmers' report spending as much as twelve hours per day performing off-farm and household chores like collecting firewood, preparing meals and caring for children. In the dry season when NFTPs are scarce, women walk an average of one extra hour. Based on the findings of the FNML project, remote ethnic women in the uplands and highlands walk on average 3 hours a day, three times a week to forests for foraging, or three to six times a week to farmland/ paddy work, and tending their small fish ponds located near their rice paddy fields. Home gardens are typically tended by females, providing HH with an average of five different vegetables,[62] although in inadequate amounts. The resulting "time poverty" imposed by women's numerous and onerous tasks contributes to women's unequal education opportunities and clearly limits their opportunity to be involved in more rewarding economic activities or to participate in paid, productive employment.

18. According to official statistics, less than 10% of households are headed by women. Findings from the FNML and SSSJ projects suggest female headed household (FHH) nutrition and incomes

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

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

levels can be particularly low because they have lower status in the village, tend to be labour and land deficient and have notably less time to be involved in group meetings.

19. **Ethnic women in the public sphere**. Extension services and project-supported meetings are often held in Lao (which ethnic women may not be familiar with) and at times of the day where women are in the fields. In general, women seldom speak in village meetings, in part because voicing opinions may go against the cultural image of a woman (gentle, patient, self-effacing). These gendered values are not seen to be conducive to a leadership role, which requires the leader to inevitably displease someone. In village meetings, some women are sent as deputies when their husbands do not attend and, in this role, are seen as representing the family not just herself. This accounts for the commonly heard sentiment, 'I don't want to make a mistake' which fuels the lack of confidence many women feel. Low education and lack of familiarity with the village level discussions further compounds the inequity experienced by women. Cultural patterns and resultant lack of free time act as additional limits to the quality of women's participation[63]. In spite of these constraints, numerous project-linked experiences reveal the potential for greater involvement of women in development if community facilitators are well versed in participatory and gender-inclusive techniques and able to reach remote villages on a regular basis. There is good evidence of women's interest to be involved in group activity, and coping strategies to address women's group participation include: setting and knowing in advance an agreed "appointment" during the day, agreeing with male HH members that farm-work will be temporarily halted in preference for attending farm groups, and greater labor-sharing duties for males.

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

TARGETING AND GENDER MAINSTREAMING MECHANISMS

Targeting and Gender Mainstreaming Strategy.

Targeting.

21. **Target group**: The main target group will be within the population of the 12 SSFSNP target districts, with ethnic people representing the majority of the population in all SSFSNP districts[64]. Within these districts, villages will be selected based on, *inter alia*, (i) Kum ban poverty data as specified in Government's Decree #285/PM, specifically those related to poverty and stunting incidence and access to a road and WASH facilities; (ii) potential for agriculture-led growth including the agriculture and forest resource base, irrigation development potential and market access; (iii) commitment of kum ban and village leadership; (iv) an assessment of climate change vulnerability and availability of remedial solutions; and (v) opportunity for convergence through on-going or planned support projects. The SSFSNP will not work with villages scheduled to be resettled and will allocate investment resources competitively based on benchmarked village performance. Women, who make up a large part of the agricultural workforce and take key responsibility for household nutrition, 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 Project services and benefits, the SSFSNP will adopt measures to increase women's participation and influence in community-based participatory planning including: (i) equal gender representation on the SSFSNP village development committee (ii) both separate and joint meetings of men and women in the

[63] Comprehensive Food Security & Vulnerability Analysis (CFSVA) World Food Programme, Lao PDR, Oct-Nov 2006
[64] Key characteristics of the Lao target ethnic groups are summarised in Appendix 1

decision making process with a quorum of 40% of village women for women's meetings; (iii) 60% of approved activities must be a priority for women; and a (iv) a weighted voting system that strengthens the voice of poor households.

22. The Project will also adopt an age-stratified development approach including providing better nutrition for under-5 year olds, behavior changing life knowledge for primary school children, employment for rural youth through rural infrastructure development under force account, the opportunity for farmers, particularly poor and women-headed households, to associate to produce and market nutrient-rich food, and the opportunity for others in this category to engage profitably in contract-farming relationships. For all members of the rural community the project will offer the scope for more sustainable natural resource utilization and will strongly promote nutrition behavioral change.

23. A number of common features and trends shared by poor households were taken into account in designing the Project and its targeting strategy:

- *remoteness:* in the uplands 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 extension agents and traders. This is being systematically addressed by GoL through IFI and bilaterally supported investment in major arterial roads and access will be strengthened by the Project through improvement of village access roads where this is seen as a community priority;
- *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 SSFSNP, a reduction in women's labour requirements will arise from a range of productive investments that will support reduction in *swidden* agriculture, benefiting women through higher returns per labour day, with the demand for women's labour also partially offset by adaptive technology (e.g. mechanised threshing, better fodder supply, etc.) and the use of employed labour at times of peak labour demand;
- *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 or across-the-border markets. Maize, livestock and NTFPs are grown for consumption and small surpluses are marketed to domestic markets and to traders. Current market linkages are very weak due to: (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. Private investors, however, both national and regional, are contracting and purchasing a growing range of products from local farmers, including maize, soybean and cassava, vegetables and livestock and plantation crop products including coffee, tea, rubber, and plantation timber. These new markets offer new sources of cash to farmers, but they also induce them to change their traditional 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 concurrently achieving 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 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 practices, including leguminous fodder production, to increase both land and labour productivity;
- *UXO*: to this day, the impact of the bombing of the 1963-73 war 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;
- *natural disasters:* recent events and general forecasts[65] indicate that climate change is likely to cause increased droughts, increased and more intense floods and 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.

24. The Project beneficiaries will be primarily self-targeted. Villagers will be requested to identify poor households in their communities, who will be proactively targeted for effective engagement in VDP investment prioritization and subsequent implementation and management activities, which are inherently pro-poor. Highly vulnerable food-insecure households will be targeted for infrastructure investments such as micro-irrigation and will have a minimum 30% participation in project-supported farmer producer groups. Women will be specifically targeted for improved household nutrition. Youth will be targeted for capacity building and labour provision for CFA construction work as well as through the expansion of the school curricula. Contract farming is more likely to target wealthier farmers with better access to capital, roads and markets, but investors will be encouraged to incorporate poorer households in their contract agreements through appropriate weightings in the competitive selections of project-supported investment proposals.

25. **Gender Targeting and Mainstreaming Strategy**. The SSFSNP contains specific measures designed to promote gender mainstreaming, to secure women's participation in project activities and to help them gain equal access to agricultural and nutrition support, as well as playing an active role in farmers' groups. The SSFSNP, furthermore, supports the LWU in building women's capacities to address the four NNSPA agriculture interventions.

26. **Gender Mainstreaming**. In conjunction with the LWU, SSFSNP will promote gender equity mainstreaming as well as women's participation in village development planning, nutrition and production groups/partnerships and market/investment linkage programmes, assisting them to gain equal access to agricultural support and investment opportunities. Specific measures detailed in the Action Plan include: (i) gender analysis of the farming systems in the project area conducted at the beginning of the Project (ii) 50% of the participants in village planning consultations are women farmers - separate consultations to be held with men and women to identify their concerns, needs and preferences; ensure women's voice will be taken into consideration and addressed; (iii) gender awareness-raising will be conducted at village level and amongst all project stakeholders at all administrative levels; (iv) all committee members (women and men) will be trained on group formation and capacity strengthening training in participatory decision-making and facilitation techniques, leadership skills, public speaking, confidence building; (v) ensuring that both male and female family members have access to group technical training and other capacity development activities; (vi) at least 40% of committee members of VDP sub-committees are women; (vii) promoting higher quality female participation in farmers' organisations decision-making bodies, with a target of at least 40%

[65] National Adaptation Programme of Action to Climate Change, April 2009.

women; (viii) developing the capacities of extension agents to include women, and, where appropriate, organising special sessions for women; including gender audits in annual farmer groups' capacity assessments; (ix) technical training materials will include training needs and topics highlighted by women and extension training schedules will ensure that location and timing of delivery are convenient for women (x) promoting both mixed and gender-disaggregated farmer's groups with an aggregate 50% women's participation at kum ban level; (xi) supporting women groups where appropriate (and notably for nutrition activities (Output 3); (xii) appoint a national Gender specialist to the Project technical team (xiii) disaggregating M&E data and analysis by gender; and (xiv) supporting the recruitment of women to ensure gender-balanced programme implementers teams at all levels.

27. Additionally, SSFSNP will support the LWU in building capacities to implement the GALS, a community-led empowerment methodology that aims to give women as well as men more control over their lives. 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.

28. **Village programming.** To strengthen community capacity to determine its own sustainable future, the Project will: (i) train identified vulnerable communities to assess and prioritise their needs, using participatory rural appraisal and scenario development and climate adaptation tools; (ii) ensure effective women's and poor household participation in needs assessment and prioritization; (iii) enable men and women to discuss and negotiate these needs with local kum ban and district authorities; (iv) establish mechanisms that ensure women's participation in improved household nutrition, the construction of small public infrastructure investments (including their operation and maintenance), the establishment of producer groups and in building market linkages; and (v) community level monitoring of outputs and outcomes, disaggregated by gender. 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 development plans, that will be aggregated and synergised at kum ban level and reviewed/approved by DSEDCCs for inclusion in annual district and Project development plans.

29. **Farmers' groups.** Project-supported mixed and gender-disaggregated farmer groups must, in aggregate at kum ban development plan level, include at least 50 per cent female members, while individual groups must include at least 30% of members from community-identified poor households [66]. This process will be overseen by contracted Service Providers skilled 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; and (iv) promoting female village "facilitators" (see Outcome 3) and extension teams that include women and ethnic language speakers. As producers' groups 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 framer groups more inclusive and gender-balanced organisations that respond to members' requirements. This set of activities will be the responsibility of DAEC extension agents and TSC specialists with support from the short-term Farmers' Groups and Extension Specialist. Farmer-to-farmer and enterprise-to-farmer extension will be strongly supported by the Project

[66] Project experience in Lao PDR shows that, dependent on activity and community, some farmer group activities may be most successful if implemented through gender disaggregated groups. The project would therefore require a gender balance at the level of the KDP, rather than within individual groups, but each group, irrespective of its gender mix, would require 40% participation by community-identified poor households.

30. **Implementation arrangements and capacity building**. The Project 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 contract deliverables will reflect gender and inclusion targets 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 an often illiterate audience. Training should take place in the villages and not in the district capital and at times that best suit female and male participation.

31. **Knowledge management and institutional support**. Project M&E and KM Officers will ensure that the M&E/KM system allow the monitoring of inclusion and gender equity aspects, and those achievements and lessons learnt are made available to multi-stakeholder platforms and programme implementers to support regular analysis, improved performance and annual programming of related activities. The SSFSNP will, with Sub-sector Working Group on the Uplands (SSWGUp) support build the capacity of the DAEC to collate, analyse and package and disseminate sustainable nutrient-rich upland agriculture knowledge products in Lao PDR. The Project will establish a knowledge exchange platform through a participatory process under the joint auspices of the SSWGUp and the Sector Working Group on Agriculture and Rural Development (SWG-ARD).

32. Gender and targeting checklists are detailed in Appendix 2, Annex 1 and Annex 2 below.

Annex 1. Gender checklist

Key Issue	Design Response
1. The project design report contains – and project implementation is based on - gender-disaggregated poverty data and an analysis of gender differences in the activities or sectors concerned, as well as an analysis of each project activity from the gender perspective to address any unintentional barriers to women's participation.	**Yes.** Gender differences are analyzed during poverty analysis and project activities are gender-sensitive. SSFSNP has taken into account women and men's roles, constrains and needs in designing the project activities.
2. The project design report articulates – or the project implements – actions with aim to: • Expand women's economic empowerment through access to and control over productive and household assets;	**Yes.** SSFSNP activities are designed to expand women's economic empowerment by facilitating women's access to production inputs, technical training and business development skills. Project-supported gender-mixed and gender-disaggregated farmer groups must, in aggregate at kum ban development plan level, include at least 50 per cent female members, while individual groups must include at least 30% of members from community-identified poor households [67]. Under Output 3, women will be specifically targeted to invest in improved household nutrition, supported by investment in labour saving technology; under Output 4, male and female farmers will have the opportunity to form gender-disaggregated and mixed gender groups to increase farm production/productivity and link to markets.
• Strengthen women's decision-making role in the household and community, and their representation in membership and leadership of local institutions;	**Yes.** SSFSNP will, applying GALs approaches, will build women's capacity to participate in participatory community needs assessment and prioritisation, using separate women's meetings where appropriate. Women's participation in all decision making meetings and in subsequent implementation management teams must be at least 50%.
• Achieve a reduced workload and an equitable workload balance between women and men.	**Yes.** Rural ethnic women experience extreme "time poverty" and the Project is highly conscious of the need to reduce women's labour demands. Through gender disaggregated surveys of current farming practices, programs that provide for sustainably improved household and mother and child nutrition and others that promote labour saving technology and investment in more productive agriculture, the SSFSNP is expected to reduce women's agricultural and household labour demands.
3. The project design report includes one paragraph in the targeting section that explains what the project will deliver from a gender perspective.	**Yes.** SSFSNPs gender strategy, essentially guided by IFAD's Gender Equality and Women's Empowerment Policy[68], aims to enhance women's participation and role in agriculture production and marketing by increasing their access to resources and empowering them both technically and entrepreneurially as managers of agriculture and nutrition programmes. The strategy is not only to support women in production but also to move them further up the value chain by engaging them in processing, management, marketing, and ownership.

[67] Project experience in Lao PDR shows that, dependent on activity and community, some farmer group activities may be most successful if implemented through gender disaggregated groups. The project would therefore require a gender balance at the level of the KDP, rather than within individual groups, but each group, irrespective of its gender mix, would require 30% participation by community-identified poor households.

[68] http://www.ifad.org/gender/policy/gender_e.pdf

Key Issue	Design Response
4. The project design report describes the key elements for operationalizing the gender strategy, with respect to the relevant project components.	Yes. SSFSNP activities and investments will contribute in tackling the major constraints faced by the women and iimplementation arrangements concerning women's engagement are detailed in the main report and Appendices 2 and 4.
5. The design document describes - and the project implements - operational measures to ensure gender- equitable participation in, and benefit from, project activities. These will generally include**:**	
5.1 Allocating adequate human and financial resources to implement the gender strategy	**Yes.** Adequate budget has been allocated in the design for the implementation of the gender strategy. A Gender Specialist will be appointed in the DAEC technical team who will be responsible for supporting gender mainstreaming in the overall IFAD SSFSNP portfolio. Gender action plans with quantifiable targets and indicators will be developed and the project AWPB will be prepared to reflect the requirements of the action plans.
5.2 Ensuring and supporting women's active participation in project-related activities, decision-making bodies and committees, including setting specific targets for participation	**Yes**. Specific measures and strategies are designed to ensure women's access to information about project activities and their participation in project activities.
5.3 Ensuring that project/programme management arrangements (composition of the project management unit/programme coordination unit, project terms of reference for staff and implementing partners, etc.) reflect attention to gender equality and women's empowerment concerns	**Yes.** SSFSNP will promote a gender-balanced working team to have at least 20 percent women as professional staff at NPCO/DAEC technical team level. Project staff, supporting government agency staff and service providers will receive gender awareness training during start up and refresher training after mid-term.
5.4 Ensuring direct project/programme outreach to women (for example through appropriate numbers and qualification of field staff), especially where women's mobility is limited	**Yes.** SSFSNP will contract local NGOs dealing with women's issues to assist village women to establish sustainable household nutrition programmes. The DAEC will facilitate women-led farmer-to-farmer and FFS extension services and will develop meeting and training venues and timetables in consultation with women beneficiaries.
5.5 Identifying opportunities to support strategic partnerships with government and others development organizations for networking and policy dialogue	**Yes.** SSFSNP will ensure proper and balanced representation of women and men and poor households, including women-headed households in decision-making/influencing bodies at village and kum ban levels.
6. The project's logical framework, M&E, MIS and learning systems specify in design – and project M&E unit collects, analyses and interprets sex- and age-disaggregated performance and impact data, including specific indicators on gender equality and women's empowerment.	**Yes.** SSFSNP will adopt a gender-sensitive M&E system to address gender issues by reporting and analysing sex-disaggregated data throughout the project cycle. Where appropriate, the project logframe indicators are gender-sensitive and sex-disaggregated.

Annex 2. Targeting checklist

Key issue	Design response
1. Does the main target group - those expected to benefit most- correspond to IFAD's target group as defined by the Targeting Policy (poorer households and food insecure)?	**Yes.** SSFSNP primarily targets poor malnourished ethnic farmers, particularly women, in under developed upland districts and communities
2. Have target sub-groups been identified and described according to their different socio-economic characteristics, assets and livelihoods - with attention to gender and youth differences? (matrix on target group characteristics completed?)	**Yes.** SSFSNP target groups have been identified and their socio-economic characteristics, assets and livelihoods described. See Appendix 2.
3. Is evidence provided of interest in and likely uptake of the proposed activities by the identified target sub-groups? What is the evidence? (matrix on analysis of project components and activities by principal beneficiary groups completed?)	**Yes.**..There is good evidence in Laos of upland ethnic farmers adopting improved nutrition and more market-led commodity production, both with and without project support, however, the more disadvantaged districts and communities that will be targeted by this Project require support to cover the transaction costs of moving to more nutrition-sensitive, climate-adapted and market-oriented farming systems.
4. Does the design document describe a feasible and operational **targeting strategy** in line with the Targeting Policy, involving some or all of the following measures and methods*:*	
4.1 Geographic targeting *– based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentrations of poor people*	**Yes.** The target districts have been selected based on social, demographic, nutrition, economic and conversion criteria. See Appendix 2 and Appendix 2, Annex 3 and the district prioritization matrix (Project File).
4.2 Direct targeting - *when services or resources are to be channelled to specific individuals or households*	**Yes.** SSFSNP will use a set of weighted criteria to identify participating villages and community-based poverty assessment to target poor households and will apply quota to women and poor household participation in village level planning and investment management and as beneficiaries of investments in economic development.
4.3 Self targeting – *when goods and services respond to the priority needs, resource endowments and livelihood strategies of target groups*	**Yes**. Investment priorities will be set by the beneficiaries through a participatory planning process, across four board areas targeting productive infrastructure development, improved household nutrition, group formation and increased productivity, and linkages to markets.
4.4 Empowering measures *- including information and communication, focused capacity- and confidence-building measures, organisational support, in order to empower and encourage the more active participation and inclusion in planning and decision making of people who traditionally have less voice and power*	**Yes.** Through SSFSNP activities, male and female beneficiaries will receive capacity building support for participatory planning, farming as a business, group formation and management, effective communication and gender awareness and receive technical support through empowered TSCs, FFS, farmer-to farmer extension and NAFRI participatory action research. Provision has been made for specifically targeting women on nutrition and production issues. Ethnic people will be empowered to identify with their values, heritage, resources and traditional knowledge.

Key issue	Design response
4.5 Enabling measures *– to strengthen stakeholders' and partners' attitude and commitment to poverty targeting, gender equality and women's empowerment, including policy dialogue, awareness-raising and capacity-building*	**Yes.** SSFSNP will specifically target community-identified poor households, and women, including women-headed households, through minimum participation quotas and targeted capacity building programmes and will also conduct gender awareness training for project staff and supporting government agencies and service providers. Output 3 targets women specifically.
4.6 Attention to procedural measures- that could militate against participation by the intended target groups	**Yes.** Possible procedural constraints for women, youth and poor's access to and benefits from project activities have been analyzed and addressed in the design.

Annex 3: MAF Justification for the selection of Project districts

1. Based on MAF and MOH discussion on 8th and 20th Oct. 2015 the following districts are proposed for Project inclusion. This selection is based on the following criteria:
    - Document on 64 focused development areas.
    - Report on results of Poverty Assessment 2015, (which is based on Decree of Prime Minister 309/PM dated 14 Nov. 2013), National rural Development and Poverty Eradication Committee
    - MOH priorities
    - Location
    - Proximity
    - Accessibility
    - Economic integration
2. **In** Oudomxai, the main reasons to select the districts of Lah and Namor districts are:
3. Based on Report on results of Poverty Assessment 2015, National rural Development and Poverty Eradication Committee:
    - Houn district: total villages 93, of which poor village are 36 or 38%.
    - Baeng district: total villages 58, of which poor village are 7 or 12%.
    - Xai district: total villages 97, of which poor village are 38 or 39%.
    - Namor district: total villages 62, of which poor village are 26 or 42%.
    - Lah district: total villages 45, of which poor village are 19 or 42%.
4. Even though, Xai district has a large number of poor villages, Xai district is the capital of Oudomxai province and the relatively high poverty level is a result of the influx of poor people migrating from other districts. Xai district has a better chance to develop (it has some facilities, accessibility and resources) than other districts.
5. Houn district is quite similar to Xai district regarding number of poor villages, but this district has many opportunities for its development (in terms of location and resources) and SSSJ is already implemented in Houn.
6. The number of poor village in Baeng district is quite small compare to Namor and Lah districts, and SSSJ is already implemented there, so Baeng district was not selected.
7. Namor district: the number of poor village is still high, even though the SSSJ is already operating there. SSSJ currently only supports agriculture activities in Namor, not nutrition activities. Namor district has therefore been selected as a Project target district.
8. Lah district: the number of poor village is relatively high and there are any projects covering this district. Based on MOH guidance, Lah district has therefore been selected as a project targeted district.
9. **In Phongsaly**, the main reasons to select the 4 districts of Mai, Boun-Tai, Samphan, Khua are as follows:
10. Based on guidance and the agreement between senior Management of MAF and MOH, there are very few and small projects implemented in the province. It is necessary to have support from outside particularly SSFSNP. This province is very poor compare to other province.
11. Based on the Poverty Assessment 2015, National Rural Development and Poverty Eradication Committee:
    - Gnot-Ou district: total villages 79, of which poor village are 58 or 73%.
    - Mai district: total villages 85, of which poor village are 68 or 80%.
    - Boun-Tai district: total villages 61, of which poor village are 33 or 54%.

- Samphan district: total villages 69, of which poor village are 57 or 83%.
- khua district: total villages 91, of which poor village are 50 or 55%.

12. Mai, Boun-Tai, Samphan, and khua districts have a large number of poor villages and these districts are close together which will facilitate Project implementation and supporting Project monitoring and supervision by concerned agencies. These districts are therefore selected as project districts.

13. Though Gnot-Ou district is very poor, it was not selected as a project district because it is a quite isolated area that will consume more time and resources to service leading to less effective Project implementation and the risk of underachievement of Project objectives. The provincial government also has a plan to expand Project activity to Gnot-Ou district, once the four other districts are successful.

In Huaphan province, the main reasons to select the 4 districts of Huamuang, Xam-Tai, Kuan, Xon are as follows:

14. Based on the Poverty Assessment 2015, National Rural Development and Poverty Eradication Committee:
    - Huamuang district: total villages 76, of which poor village are 47 or 62%.
    - Xam-Neua district: total villages 109, of which poor village are 53 or 48%.
    - Xienkhor district: total villages 59, of which poor village are 22 or 37%.
    - Xam-Tai district: total villages 90, of which poor village are 63 or 70%.
    - Kuan district: total villages 66, of which poor village are 53 or 80%.
    - Xon district: total villages 34, of which poor village are 22 or 71%.

15. Though the number of poor village is high in Xam-Neua district, it is not selected as project district because this district is the capital of Houaphan province and has alternative opportunities to develop (it has already some facilities, accessibility and resources) compare to other districts.

16. Xiengkhor district, poverty levels are below those of Huamuang, Xam-Tai, Kuan districts thus this district was not selected.

17. Vienthong district has recently been divided into two districts: Hiem and Xon districts, Xon district is poorer than Hiem district. So, it is selected and proposed as project district.

18. These four districts are close together, facilitating Project implementation, including Project monitoring and supervision by concerned agencies.

19. In **Xiang Khouang** province, Kham and Nonghet districts are proposed for Project inclusion. Based on data provided by the Department of Planning of the National Rural Development and Poverty Eradication Committee (NRDPEC), the percentage of poor households in Kham and Nonghet are 2.72% and 4.17% respectively.

20. , DPC MAF discussed with MoH and the Department of Planning of the NRDPEC on 29 October 2015, to understand why the aforementioned percentage of poor households is less than those reported in the Poverty Assessment 2015 (NRDPEC).

21. The criteria for income per capita per day that the GoL set for Lao condition is quite low (about 180,000 kip/capita/month or US$ 0.74/capita/day- based on the Decree of Prime Minister 309/PM dated 14 Nov. 2013, compared to the international standard/criteria of about 1.25/capita/day. As a result of using GoL criteria, the percentage of poor households is low. But in reality, people are still poorer, particularly in the 24 poor villages (26.7%) out of total 90 villages of Kham district and 45 poor villages (42.5%) out of total 106 villages of Nonghet district.

22. When selecting the two districts, MAF based the selection on the number of poor villages per district, which is much more than for other districts in Xieng Khouang province. The criteria for poor village are:
    - The number of poor households is more than 50% of the total households in the village;
    - no primary school, the nearest school will take time more than 1 hour by walking;
    - no health care office, the nearest health care office will take time more than 2 hours by walking;
    - No clean water available
    - No access road or, if available, can only be travelled during the dry season.
23. Based on the data in the Report on the results of Poverty Assessment 2015 (NRDPEC) we found that the figures of poor villages and households are not inconsistent (if it is based on the first criteria above). In reality, people are still poor in those two districts compare to other districts of Xieng Khuoang province.
24. The proposed two districts of Xieng Khouang are both MoH priority districts for nutrition interventions.
25. Additional reasons for the above proposed project districts are:
    - MOH has already organized training on basic knowledge about nutrition for Heath staff in the proposed project districts.
    - MOH and MAF will implement a convergence policy in the proposed project districts.

Appendix 3: Country performance and lessons learned

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

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

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

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

5. The lessons learnt that are most relevant to the design of the SSFSNP come from IFAD financed SSSJ and FNML projects, the PRF II, the recently competed Rural Livelihoods Improvement Programme (RLIP) in Attapeu Province and from other projects working in similar agro-ecological areas (AFD, Oxfam, Care, SNV and Helvetas). AFD is supporting the Northern Uplands Development Project (NUDP) II in 3 northern provinces; Oxfam has been working on food security, Care's support is on food security and health services while SNV and Helvetas have been supporting farmer linkages to markets and public and private advisory services. Lessons can also be derived from the World bank financed LONG project addressing mother and child nutrition, 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, the UNDP-supported LDCF2 project and the UNCDF LoCAL project.

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

- IFAD support should focus on agricultural livelihoods and the associated natural resource avoiding dissipation. IFAD should partner with other donors to ensure better activity complementarity;
- Continued and continuous capacity building and knowledge management is crucial for all stakeholders, including technical agencies, extension agents and beneficiary households. Training should be provided in the languages of the target ethnic groups,

and use graphical presentations where literacy is low. They should take cultural differences into consideration, and should take place in the villages and not in the district capital. Training should also be regularly repeated to address relatively high staff turnover in government agencies and knowledge retention at village level;

- While inclusive targeting should be promoted, tailored and specific approaches for each ethnic group and gender, should be followed in order to ensure that a greater proportion of the poorest villagers benefit from SSFSNP support;
- Grass roots participation in the planning and implementation of activities should be put as a priority and women's and youth's involvement must be ensured. This can best be achieved with the support of experienced, independent facilitation;
- Links must be established to those government and private sector extension services that can support tenure security, agricultural and livestock productivity, and market access;
- There are opportunities to increase the technical quality of infrastructure and strengthen supervision, including resilience and disaster risk aspects;
- Stronger focus should be given to the operation and maintenance of project-financed infrastructure;
- Decentralized community-level decision-making systems should be supported, and more capacity provided and accountability afforded to district and kum ban levels;
- The SSFSNP 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;
- Use participatory action research to establish linkages between the science-based information being generated and decision-making at various levels including community level actions. These projects should also include components for raising community awareness on climate change impacts on food security;
- Building agricultural markets is most likely to succeed with farmers who are effectively organised to produce substantial volumes of a commodity, farm within reasonable proximity to all weather roads and are linked to investors (e.g. contract farming). The equality of those farmer-investor-market linkages can be substantially improved through an improved policy environment.
- Non-Timber Forest Products (NTFPs) have proven to be key for the rural poor as nutritious food and cash-income sources. PLUP and domestication of NTFPs (e.g. cardamom, bamboo shoots, fungi) 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);
- Changing nutrition behaviour is essential to reducing malnutrition in rural areas;
- Focusing on improved household nutrition and, within that framework, the 1,000 day mother and child nutrition window will have the greatest impact on reduced stunting;

- Procurement procedures should be adapted more to community needs and capabilities, including increased use of CFA procurement.
- Community engagement especially in ethnic villages requires additional analysis, resources, and institutional coordination;
- RLIP has been successfully mainstreaming community development into government community and district planning systems, which, although requiring more work to institutionalize the process, should be replicated into new IFAD programmes in Lao PDR;
- Equity aspects should be mainstreamed in project design, with adequate capacity and monitoring mechanisms; and
- Given the limited capacity of project staff, a simple and meaningful M&E system should be put in place including the use of participatory M&E systems
- Stronger synergies should be ensured between IFAD grants (regional and country) and loans (projects);

Appendix 4: Detailed Project description

1. The Project will have three main outcomes; (i) *Strengthened government services*; (ii) *Community-driven, nutrition-sensitive agriculture interventions established: and (iii) Sustainable and inclusive market-driven partnerships established*. There will also be a Project Coordination module.

Outcome 1: Strengthened public services. This outcome will have one output.

Output 1. Build government staff capacities and procedures and technical packages to support and converge community implementation of selected National Nutrition Strategy interventions

2. *Activity 1: establish a tiered Project planning, supervision, monitoring, knowledge management and learning system within MAF, supporting nutrition investment convergence strategies in target districts.* This activity, led by the National Project Coordination Office (NPCO) under the MAF Department of Planning and Cooperation (DPC), will, building off multi-donor support to the strengthening of MAF planning and M&E systems: (i) establish a tiered Project planning, supervision, monitoring, knowledge management and learning system within MAF, together with coordination mechanisms for programme convergence on food security and nutrition investment; (ii) build capacity of Project-targeted provincial and district administrations to plan, manage and monitor, multi-sectoral public investments in food security and nutrition identified through participative, bottom-up planning.

3. The Project will, in support of improved planning and continuous learning, better integrate systems and procedures into the day-to-day work of MAF-DPC and its provincial and district counterparts that map community needs and resources, measure the performance of programs and services and track individual, family, and neighbourhood outcomes. Given the complexity of the *task*, impact measures will be developed with the help of an embedded research organization that can translate desired outcomes into operational measures and assemble and process the data necessary to track these measures over time. Such analysis will be woven into the core planning and decision making responsibilities of the MAF, the participating Province Agriculture and Forestry Offices (PAFOs), and, particularly at district level, the implementing partners of the multi-sector food security and nutrition strategy coordinated by the local socio-economic development committee. At all key meetings, beneficiaries shall be present and consulted.

Activity 2. Build *GoL service provider (DAEC, TSCs and NAFRI) capacities to develop and deliver sustainable climate-adapted and nutrition-sensitive agriculture and natural resource management technologies and training programmes and monitor their impact*.

4. The Department of Agricultural Extension and Cooperative (DAEC), with national and international technical assistance, Technical Service Centres (TSCs) and National Agriculture and Forestry Research Institute (NAFRI) support, will lead Project development and delivery of sustainable climate-adapted and nutrition sensitive agriculture and natural resource management technologies and training programmes. Agricultural technical options/packages should be based on a thorough analysis of available downscaled climate projections. It should not be assumed that all sustainable agricultural interventions will promote *adaptation*. Enhancing soil moisture will be a further critical adaptive measure, and this will necessitate improving soil structure, not just fertility. Ensure inclusion of varieties and technologies that will deliver results under a range of conditions, to accommodate uncertainties in projections. Technical options should be developed in a participatory process with local farmers to ensure inclusion of local and traditional knowledge, as well as cultural acceptability. Proposed technical initiatives will include:

(i). *Participatory action research*. The SSFSNP will contract NAFRI to implement a Participatory Action Research (PAR) programme in collaboration with project supported smallholder groups and contract farming systems. The NAFRI will, in collaboration with farmer groups, identify technical and socio-economic constraints and opportunities for the field development of the four nutrient rich food initiatives under the NNSPA. 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 lightened. Training in PAR methodologies and practices will be provided for NAFRI scientists and to national and district level MAF and PAFO and DAFO staff. The NAFRI Agriculture and Forestry Policy Research Centre (AFPRC) will also evaluate climate adaptation technologies and approaches that show potential for scaling up. This will include climate resilient adaptation innovations such as drip irrigation, field testing drought and heat tolerant seed varieties, forage incorporation into farming, forestry and land stabilization systems, soil degradation and organic matter inclusion and farming and forestry models for building a knowledge base on viable livelihood activities.

Where appropriate, the Project will establish farmer field schools (FFS) to support DAEC/DAFO/TSC-led learning and technology transfer on key agriculture technologies and tools including farming as a business, group dynamics and management, integrated pest management (IPM), food safety and product certification, animal health management, sustainable forest resource management, farmer seed banks, forage production, climate change adaptation, land use planning, etc. Experienced local NGOs could also be used for technology transfer, together with farmer-to-farmer and enterprise-to-farmer extension, which is expected to be an important learning mechanism within and between farmer groups/associations.

(ii). *Forage development*. Many farming systems in the Project area mine soil nutrients and cropped areas are prone to severe soil erosion. Forage inclusion in farming systems, particularly leguminous forages, is possibly the most cost effective approach to reducing these negative impacts. To ensure quick impact and longer term sustainability, forage programmes require an ample seed supply. Many upland farmers do not understand the need for improved animal nutrition and are disinclined to grow forage. The Project could alter this behaviour by first focusing on developing selected forages as a very profitable seed crop, with the forage based feed as a by-product. If the forage seed crop is grown close the home, farmers quickly appreciate the labour reduction in forage based cut and carry feeding and its value as a forage is enhanced. Using an approach of Project procurement of forage seed at competitive prices (but well below import cost) and free distribution of small quantities of seed to interested farmers, the Project could quickly establish a demand for low labour input forage technologies that integrate into local farming systems, providing benefits in terms of animal nutrition, improved soil fertility and stability and reduced labour.

Short-term national and international forage specialists will conduct an initial assessment of forage production opportunities in the Project districts, order initial seed requirements, provide technical awareness training for DAEC and AAFO staff including a domestic study tour and coordinate an international study tour to Thailand and/or Nepal to inspect the national and school-based forage programs. The International Centre for Tropical Agriculture representation in Laos could be interested in partnering such a programme, supported by the DAEC. Terms of reference for an international forage and forage seed advisor are detailed in Appendix 4, Annex 1,

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

Primary schools will be integrated into this program through the development of curricula on environment management and conservation based farming and the provision of starter

kits and gardening tools for the establishment of forage nurseries at schools. Teachers will be trained in environment management and forage based conservation farming and provided a government financed incentive payment for promoting the program.

Approach

Appropriate forage development can substantially impact on the viability of the majority of Lao PDR's smallholders, through more sustainable livestock development and cropping. It can also address the broader issues of land degradation and climate change through the introduction of more resilient strategies and genetic material.

The forage initiatives are appropriate to smallholders regardless of holding size. On-farm strategies require no financial inputs[69], and can be gradually expanded with family labour. There are significant benefits for small livestock, including pigs and scavenging poultry, in terms of improved productivity and reduced feed costs. The forage strategies enable an intensification of smallholder farming systems, and strengthening of livestock/crop interactions.

The fodder development approach is based on perceived needs for such interventions amongst stakeholders, and the experiences of successful programs with small-holder's systems, and broad-scale pasture improvement in similar environments elsewhere. It can support a quick shift towards more sustainable and economically viable livestock enterprises, and can assist in developing mechanisms to reduce pressures on fragile grazing areas.

Benefits may accrue in addition to improvement in livestock productivity. The more vigorous legumes in grazing land improvement systems could reduce the severity of wildfires. Within cropping systems, there are marked benefits to soil fertility from the inclusion of well adapted forage legumes, with or without grazing. Leucaena has the potential to assist in the control of the woody weed *Lantana camara*, as proven in eastern Indonesia and parts of Australia. Dense swards of Shrubby stylo (Stylosanthes scabra) have shown some efficacy in reducing the incidence of some species of tick. Conspicuous forage programmes can provide a convenient entry point for the promotion of other livestock management interventions.

It is not practical to pre-test technical options within a conventional research mechanism. The programme will be based on farmer-led and managed development. This approach has proved to be highly effective in many similar development environments, with rapid gains achieved in many countries including Nepal, India, Thailand, and Ethiopia.

The approach will encompass:

- Quick start-up, involving a wide range of sites and a large number of communities/ individual farmers from the outset. This will rapidly define appropriate genetic material and development interventions. (The environmental diversity demands such an approach; extrapolating from a small number of sites is fraught with extreme risk). Participation of numbers of diverse farmers has been highly effective elsewhere.
- Using a wide array of genetic material for each strategy or agro-ecological situation. This improves the prospects of identifying the most suitable material for a particular site, reduces the risk of failure, and spreads the seasonal production. The approach will generally include quick-establishing species, with those which are slower to establish, but with high productivity or good persistence in the long term. It will also involve both commercial and pre-release material. The programme will not be dependent on pre-screening of genetic material on existing research sites. Including a broader array of species does not necessarily

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

complicate the delivery process at field level, because simple mixtures will be used. There will be considerable flexibility in terms of species mixtures, with composition varying according to availability and price of various component species.

- Close linkage of intensive forage programmes with intensive livestock enterprises.
- Monitoring. Farmers and field staff will be at the cutting edge of fodder development, and will be actively involved in continuous monitoring of performance of species and strategies (using simple rapid ranking approaches).
- Free distribution of planting material, in small start-up kits.
- Supporting extension materials, including very simple plasticized hand-arounds for farmers, and basic fact sheets for field staff.
- Use of media. The role of mass media in the promotion of appropriate initiatives will be assessed. This will be done after suitable benefits had been determined from case studies, and only after there is a well-established capacity for supply of planting material.
- Land tenure / land use have been raised as constraints on forage development, but, while land tenure issues will be addressed by the Project, they in fact do not present difficulties for forage development.
- Development will emphasise low-cost improvement of grazing areas, through legume oversowing, with seed provided free of charge. Widely scattered sites within any target community will be sown, and the legumes will spread naturally through grazing stock. Benefits will accrue, then, to all members of the community.
- Traditionally, most cropping areas are grazed communally in the dry season. Dry season grazing will not impede the survival of the introduced legumes, and in fact will improve their spread. It is anticipated that dry-season grazing control will gradually increase, which will enable higher productivity of forages.
- The communal land strategies could be implemented without any new by-laws on usage.

Grazing land improvement through low-cost oversowing of well adapted legumes has not been attempted in Lao PDR, but there is ample evidence (including from Thailand) of its efficacy in similar environments elsewhere. A logical strategy is to oversow with a broader array of well-adapted genetic material, and to initiate sowing on very widely scattered sites to maximise the rate of natural spread. Inclusion of pasture legume species in grassland areas will, over time, assist in the control of tall grasses and reduce the devastating environmental impact of wildfires.

The appropriate pasture/forage development technologies are not sophisticated and quick start-up over a broad range of sites is feasible with hands-on, short duration training. Applicable innovative extension and delivery approaches have been developed in similar environments elsewhere.

Encompassing large numbers of smallholder producers, and broad scale rangeland sowing, will demand the availability of low cost seed of an array of legume species. Imported seed is exorbitantly expensive, but there are well-proven technologies for the production of high quality seed at low cost, within manual production systems on smallholder (rainfed) farms.

Approaches have been widely discussed with producers and with livestock/agricultural extension staff at all levels and there is now widespread support for such a program.

At the outset, it is important to:

- emphasise areas with potential for high adoption and satisfactory technical success;

- include some small-scale activity in lower potential areas to enable refinement of approaches and the opportunity for localised training.

From the outset, pilot activities will be initiated in all areas, rather than gradually phasing-in provinces and districts. (Spontaneous exchanges/ adoption between widely scattered districts/ provinces will be relatively very slow; different agro-climatic areas require distinctly different technical packages.) The program will target the beneficiary farmer group livestock grants.

Seed production will require a different approach, and it is imperative that production areas are selected with the potential for high seed yields. If it is to be successful, clusters of contract seed producers must be selected on a basis of the site /community suitability for reliable seed production; these are most likely to be distinct from the other target groups.

Selecting species for various locations and strategies

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

Smallholder forage development

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

Specific forage plots Perennial forage plots will be established, typically of 0.25ha, which is a manageable area for establishment, protection from grazing, and for cut-and-carry utilisation; this area is also adequate to demonstrate the production benefits from improved forage supplies. Plots will be adjacent to the house for efficient utilisation and to enable use of farm-yard manure. Protection from dry season grazing is preferable, but is not imperative. (Dry season grazing typically does not impact severely on the subsequent wet-season productivity.)

Plots will be based on broad mixtures. It is crucial to have conspicuous results from the first year of establishment, if plots are to be protected; in this context, the quick-establishing and very productive legumes such as Pigeon pea, Leucaena, and sunn hemp will play a key role. Species will vary depending on site, but will generally include, *inter-alia*[70]:

Grasses:

- Mulato II (*B. brizantha* x *B. ruziziensis*) and drought tolerant lines of *Megathyrsus maximus* for most rainfall areas; the Atherton sterile ecotype of *Setaria sphacelata* for higher rainfall areas, and *Paspalum atratum* for seasonally wet areas. Some

[70] See alsohttp://aciar.gov.au/publication/mn062

Napier types will be included for conspicuous early results, but will gradually be de-emphasised[71]. All grasses will be established vegetatively.

Legumes:

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

Note: some free seeding types including the stylos will be included partly to encourage efficient spread *into adjacent grazing areas*. Small back-yard or kitchen nursery areas will be established to enable vegetative planting-out of key species, particularly the grasses and Leucaena[72], to improve establishment. A more detailed list of possible varieties is detailed in Appendix 4, Annex 3.

Forage legumes in cropping systems

The program will support existing activities promoted under conservation agriculture programs, but with more emphasis on leguminous species with high potential for livestock production. Perennial and self-regenerating legumes will be established by undersowing / under-planting in crops including maize and cassava, to maintain soil fertility in the long term, and to provide convenient forage for utilisation by grazing or cutting management. (Note: No grass species will be used in these systems.)

The key leguminous species will be Stylosanthes spp, Wynn Cassia, Desmanthus spp, Glenn jointvetch (Aeschynomene americana), site-specific forage peanut lines, and with Leucaena and pigeon pea also included in more intensive production systems. Leucaena seedlings and forage peanut slips will be transplanted at the beginning of the growing season. Most legumes will be direct-seeded after the first weeding.

(v). *Technical Service Centre development*. The DAFO TSC network is both under resourced and under motivated to service its smallholder farmer clients. Past attempts to support such centres have often not been sustainable. The mission has identified a range of technology innovations needed to support sustainable smallholder food and nutrition security, and the participatory planning process described in Output 2 will generate many more demands for technology innovation. Based on clear farmer demand, the Project will provide up to LAK 64 million (USD 8,000) per kum ban to finance up to 3-year outcome-based contracts 9See Appendix 4 for details) with TSCs to test and demonstrate innovative technologies on farmers' fields. The grant will be included in the consolidated kum ban development plan submitted to the district for approval. The issuance of such grants will be subject to participating TSCs adopting a business plan that demonstrates a clear pathway to financial sustainability. The Project will recruit a national consultant, who, supported by the national and international business development advisors, will evaluate existing TSCs in project kum ban and assist the TSC team to develop a viable business proposition for Project consideration. Based on this business proposal, the project could provide a grant to the TSC (up to USD 18,000) to restructure and to acquire the necessary skills and resources to

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

establish a sustainable TSC funding model. Activities under outcome-based contracts could include, *inter alia*: the selection of superior local upland rice varieties and development of associated farmer-managed seed banks; integrated pest management (IPM), forage technology demonstration; micro-livestock farming (e.g. frogs); fish farming and aquatic environment protection[73], sustainable NTFP management; post-harvest storage, loss reduction, food safety and traceability, etc. The DAEC will guide TSC technology innovation and demonstration. Work will be closely aligned with ongoing research projects in Lao PDR.

(vi). *Farmer-to-farmer technology transfer*. Farmer field schools, based on the principle of people-centred learning, can be effective in ethnic communities as they educate by enabling farmers to observe, analyse and try out new ideas on their own fields. Where appropriate, the Project will assist farmer groups to establish Farmer Field Schools (FFS) to support DAEC/DAFO/TSC-led learning and technology transfer on key agriculture technologies and tools including farming as a business, group dynamics and management, IPM, food safety and product certification, animal health management, sustainable forest resource management, farmer seed banks, forage production, climate change adaptation, land use planning, integration of nutrition and gender considerations, etc. The project will focus on a farmer-led approach, which is most likely to lead to sustainability and scalability. Farmer facilitators will be trained in group and farm management and in the relevant technologies. Experienced local NGOs could also be used for technology transfer, together with farmer-to-farmer and enterprise-to-farmer extension, which is expected to be an important learning mechanism within and between farmer groups/associations.

Outcome 2: Community-driven agriculture-based nutrition interventions established.

5. This outcome will be supervised by the World Food Programme (WFP) under the GAFSP *Technical* Assistance (TA) grant. Under this outcome, the Project will support two outputs:
Output 2: Planning for improved nutritional outcomes, which will include two activities, namely (i) District multi-sectoral convergence planning; and (ii) Village development planning; and
Output 3: Women-led improvement in household nutrition, which also includes two activities, namely (i) Farmer nutrition schools; and (ii) Household availability and utilization of nutritious food.

6. Good nutrition is an outcome as well as an essential input into social and economic development. Agriculture, and in particular, food systems, have a foundational role in nutrition. Investing in women and nutrition through agriculture is more than a social good; it is sound *development policy and good economics. That is why there is stunting as goal indicator and improved household access a PDO indicator. Outcome 2 focus particular on nutrition and women-led activities, with improved dietary diversity along the life cycle as an Output 3 indicator.*

7. Good nutrition increases learning and cognitive abilities as well as labour productivity, increasing rural farm income as well as overall economic and agricultural growth. To really make a difference in rural Laos, a comprehensive approach that simultaneously tackles the causes of malnutrition is needed. Households must have good knowledge about food, care, and health as well as access to the right amounts and kinds of food and to good water and sanitation and health care. The Project empowers communities to prepare their village development plans and supports programmatic convergence for mother and child health (MCH) and WASH.

8. *Nutrition has been* mainstreamed into all three SSFNSP project components, so that each activity contributes to improved nutrition and that, together through synergies, the sum effect is greater than each individual part. The causes of malnutrition are known to cut across sectors. Simultaneous action on food, care and feeding practices (or, for adults, making good food choices), and access to good health care and water and sanitation are needed for greatest impact. Promoting convergence among interventions in these different areas is essential so that they arrive to the

[73]Aquatic-sourced protein provides 50% of the protein intake of upland rural communities.

household at the same time. Managing the nutrition-related interventions in a holistic way is critical for impact, even if they are part of different components. In addition, many of these ethnic groups are clearly going through a transition in terms of their culture and livelihood strategies. The project takes this dynamism into account and focuses on providing households the resources, tools, innovations and knowledge they need to make a positive transition in terms of income and nutrition security, while maintaining the natural resource base and adapting to climate change.

Output 2: Planning for improved nutritional outcomes.

9. The Project pursues an approach that effectively and explicitly incorporates nutrition objectives, concerns, and considerations to enable communities to achieve improved access to *food and to increase dietary diversity. Despite focusing mainly on agriculture and market driven partnership, the Project will facilitate convergence planning and learning with particular focus on MCH and WASH, so at to support the NNSPA.*

10. Activity 1: District multi-sectoral convergence planning. At district level, the SSFSNP will facilitate "planning for nutrition investment and service delivery convergence" to accelerate the implementation of the NNSPA, including the mapping of different stakeholders' programmes and infrastructure assets, with a view to identifying development gaps at village level and monitoring progress towards the NNSPA 10+4+4+4 outcomes. The SSFSNP will facilitate the joint work of relevant Districts Committees including the District Nutrition Committee, District Socio-Economic Development Committee, and of the District Rural Development Office (DRDO), District Planning and Investment Office (DPIO), DHO, DAFO and other GoL district line agencies, together with development partners and the private sector where appropriate. This will support the NNSAP activity 12 (intervention 23).

11. *At District level the overall approach will follow the NNSPA guidance to "plan multi-sectorally, implement* separately per sector and monitor multi-sectorally" DHO will be responsible for reporting back to the Provincial- and the National-level Nutrition Secretariat Offices. With Project support, MoH/PHO/DHO will also provide nutrition training to ensure all GoL key stakeholders understand the topic of nutrition, its multi-sectoral nature and economic impact. This will support the NNSAP activity 11 (intervention 22).

12. In order to converge activities at village level, and to increase efficiency from the multi-sectoral village-level delivery platform, the Project will support the development of village investment plans through community-driven bottom-up processes and establish linkages with village nutrition facilitators that are tasked to support SBCC activities described earlier. Through the overlap with the World Bank supported HGNDP project, which will be implemented in all project villages in Houaphan, Phongsali, and Xiang Khouang provinces, it is expected that the delivery of reproductive, maternal and child health, and nutrition services at the district, village and health facility level in the Project area will improve. The HGNDP includes seven disbursement linked indicators (DLIs), including ANC, safe delivery, growth monitoring and counselling, as well as family planning, integrated outreach and quality assurance.

13. In addition to programmatic convergence, the Project would also support knowledge convergence and learning, particularly concerning the implementation of the four NNSPA agriculture interventions. This would include annual progress review and learning workshops for provincial and district officials, and, particularly, farmer-to-farmer knowledge exchange, both between SSFSNP-supported villages and between Project and non-project villages in Project districts. This exchange is expected to lead to considerable flow-on benefits as nutrition behaviour change is as much related to improved knowledge as it is to physical assets and access to services.

14. *Activity2: Village development planning. The Project will build capacities of village stakeholders to lead the* development process in their communities, particularly to collaborate, plan, and act effectively, recognizing in this process the key role of women as producers. This will be a central pillar of the Project. Identifying and cultivating natural leaders within the community, particularly amongst women and young people will be an important component of locally driven and bottom-up project

planning approaches, helping to create greater cohesion and a sense of local identity. Using contracted Service Providers and with the technical support of the MAF DAEC, the Project will enable villagers to prepare three-year multi-sectoral plans addressing food and nutrition security, productive infrastructure and income and employment growth priorities. The starting point of the village panning process will be a rural institutional assessment and mapping in project districts and communes. Before commencing its village plan, each village will hold a vision meeting to raise awareness about what is stunting, so that villagers can make informed choices and plan "nutrition-sensitive" agriculture and rural development investments. This planning process will pay particular attention to the implementation of the four agricultural activities within the 22 priority interventions under the NNSPA. These include(i) expanding and intensifying the production of nutritionally-rich plant-based foods; (ii) production and promotion of animal-based protein for household consumption; (iii) improved post-harvest handling and food processing to strengthen year-round food security; and (iv) promotion of income-generating activities, with a focus on women. Village development plans will also include investments, developed exclusively by women, to ensure sustainably improved household nutrition.

15. The Project will implement best practice bottom-up planning procedures at the village level in support of the preparation of budgeted 3-year village and kum ban food and nutrition security plans. The NPCO will periodically assess the planning processes to ensure beneficiary needs are being effectively met. The project will only invest in villages where there is a clear community demand, formally expressed as part of the selection process by a signed commitment to follow a set of non-negotiable principles and rules of ethics. The Village Implementation team (VIT) elected to coordinate the preparation and implementation of the village development plan should have at least: 50% female membership and 30% membership from village-identified poor households. The VIT, which will be trained Service Providers and technically guided by DAEC advisors, will nominate procurement and audit sub-committees and will maintain a public notice board at village level clearly detailing village development fund finances and achievements. Given the frequently low levels of literacy and Laotian language skills in upland villages, particularly amongst women, all village development plans (VDPs) will also be accompanied by more pictorial descriptions. Under VDP programme implementation, the Project will: (i) recognize, strengthen and build off existing village/farmer organizations; (ii) ensure the engagement of women, ethnic groups, poor households, youth and other common interest groups at village /hamlet levels in investment planning, implementation, monitoring and maintenance by facilitating self-help groups and collective work; (iii) engage communities in household poverty ranking, targeting and benefit monitoring; (iv) disclose and display community profile, social maps and poverty ranking at village level and on the project website for referencing when needed; (v) ensure adequate access by villagers to information on possibilities for pro-poor livelihood-supporting infrastructure and nutrition and agriculture investments; (vi) link VDPs/KDPs at district level to other sources of funding, particularly convergence funding for improved nutrition; (vii) independent sub-project appraisal and monitoring for milestone achievement, quality and sustainability; and (viii) in cases where a large portion of the annual allocation is unused or where implementation of sub-projects is seriously delayed (e.g. less than half-complete one year after fund disbursement), sub-projects can be cancelled on the decision of the Provincial Project Steering Committee, leaving the opportunity to reward best performing villages through additional funding.

16. MAF and other GoL PDR agency engineering sub-project design quality and construction supervision will be overseen by UN Habitat, who will be responsible for ensuring that sub-project construction is compliant with the standards of line ministries and IFAD. All engineering works will be subject to design and environment impact checklists and hazard/risk assessments and will receive no-objection by the District Public and Transportation Division to ensure that they meet national design standards.

17. The VDP will be developed during a series of village assembly meetings led by an elected and trained Village Implementation Team (VIT) with at least 50% female and 40% village-identified poor household participation in all planning meetings. Approved VDPs will be brought to kum ban level where they will be aggregated, assessed for their effectiveness, feasibility and cohesiveness and prioritised by a committee comprised of VIT representatives nominated by their communities, leading

to the preparation of a Kum ban Development Plan (KDP). VIT representatives engaged in the kum ban planning process will elect a Kum ban Management Team (KMT), which will, in turn, elect members of committees responsible for KDP procurement, finance and audit. Where operational VIT and KMT or their equivalents already exist, they would be used by the SSFNSP in order to avoid the duplication of local structures.

18. At kum ban level, village development plans will be aggregated, assessed for their effectiveness, feasibility and cohesiveness by a committee comprised of village "champions" nominated by their communities. Consolidated kum ban development plans will be forwarded to districts where a Project empowered cross-ministry DSEDCC, or its local equivalent, will, in consultation with KMT and Project representatives, verify KDPs for inclusion in the district annual work programme and budget (AWPB) for District Governor approval. KDPs, which will not be subject to change without community engagement, will be approved at Provincial level by the PPSC and will be financed through transfers from provincial project sub-accounts to KMT development fund accounts, opened at the nearest available banking centre and managed by the KMT, for use by VITs in village sub-project implementation. Sub-project funding will be released annually against the approved 3-year VDP budget, subject to annual village evaluations and Project performance reviews. Project transfers for VDP financing will go direct to project districts for onward passage, where appropriate, to KMT accounts. The NPCO will only do post review on randomly selected sub-project proposals.

19. All potential sub-projects will be subject to a screening and technical assessment process using methodologies established through the JICA-financed PCAP projects. This process will be of particular importance in sub-projects which may be potentially vulnerable to natural hazard, including climate impact. After the screening and technical assessment process, Project and District staff will help the community to develop a detailed design and budget. This will then be subject to final ratification by the DSEDCC, or its equivalent at district level. The Project will be committed to delivering food and nutrition security investments that are disaster and climate-change weather event resilient. This will be achieved through (i) conducting a thorough review of sub-project designs in order that disaster-proofing measures can be incorporated; (ii) the application of a disaster and hazard risk assessment checklists and survey forms for use early in the sub-project design cycle; (iii) the application of sub-project cost/benefit analysis to the sub-project selection process; and (iv) training the Project and district staff in disaster risk reduction design and (for infrastructure sub-projects) construction techniques.

20. The VDP will be implemented through: a village development fund (VDF) that will finance activities under Project Outputs 3, 4 and 5, described below. The terms and conditions of the grants will vary across the three Outputs. Output 4 and 5 grants will require an in-kind contribution to be costed in the village development investment plans. These could be labour and materials directly related to the village/group investment, or it could be an agreed public good in-kind contribution such as the construction of pit latrines for poor village households or systematic village clean-up programmes. The meeting of in-kind contributions will be a condition of grant disbursement. Labour and material contributions will be calculated at fair market rates as determined annually by the Project. Each window will have a direct fund flow to village level.

21. The Project will, through output/outcome-based contracts (see Appendix 5, Annex 1 and Annex 6 for details), employ experienced Service Providers to guide and support village-led planning, investment implementation and follow-up operation and maintenance processes. Service Providers will be guided by a set of manuals, based on best practice participatory planning in Lao PDR, including (i) guidelines for bottom-up participatory planning; (ii) a technical manual for field staff on national standards for sub-project design; (iii) technical guidelines for the livelihood activities; (iv) environmental guidelines and forms for infrastructure projects (e.g. irrigation works and roads); (v) a community procurement manual; and a (vi) manual on sub-project operation and maintenance. Communities will be guided by a set of information, communication and education (IEC) "tools" on sub-project operation and maintenance.

22. Under a performance based contract, the Service Provider(s) will be required to transfer responsibility for community-based participatory planning and investment implementation to participating district administrations within a 3 to 4-year period.

23. Villages will "graduate" from VDP investment support after three – or in exceptional cases after four years, but will maintain an on-going relationship with the Project on other support measures. While WASH activities will not be eligible for funding except under exceptional circumstances, the Project will seek convergence and investments from other partners in villages in which there are no water systems and open defecation (ODF) is practiced. Under the direction of the NPCO and PAFO, M&E officers, all village sub-projects will be monitored for project management information, learning and outcome measurement purposes using forms to record data at district, kum ban and village levels. Sub-project cost effectiveness will be determined by independent evaluators.

Output 3. Women-led improvement in household nutrition

24. This Output will promote women-led dietary behaviour change and supporting investment in the NNSPA *agricultural interventions addressing improved nutrient availability and utilization at household level.* As shown in Figure 1, it is expected that Outputs 2 & 3 will positively impact on nutrition outcomes through the "food route" (see green boxes) as well as through the "knowledge route" (see olive box).

25. *Activity 1: Farmer nutrition schools.* A social behavioural change communication (SBCC) programme, jointly supported by SSFSNP and the World Bank-financed Health Governance and Nutrition Development Project (HGNDP), which will be implemented in all project villages in Houaphan, Phongsali, and Xiang Khouang provinces, will focus on encouraging nutrition-enhancing behaviour that maximizes the benefit of the Project co-financed investments in the four NNSPA agriculture interventions implemented across the three Project investment fields (see Para. 17), which, overall, are targeted to improve the nutritional status of women and children under-five years. The National Nutrition Secretariat expects the National SBCC Strategic Action Plan to be developed during the period October 2015–March 2016, harnessing inputs from all relevant sectors and will focus on selected critical behavior in five clusters: (i) Infant and Young Child Feeding (IYCF), (ii) Maternal Care and Nutrition (iii) WASH, (iv) agriculture and dietary change and (v) Household Air Pollution. Specifically, the Project will support the establishment of monthly village-level "farmer nutrition schools" (FNS).

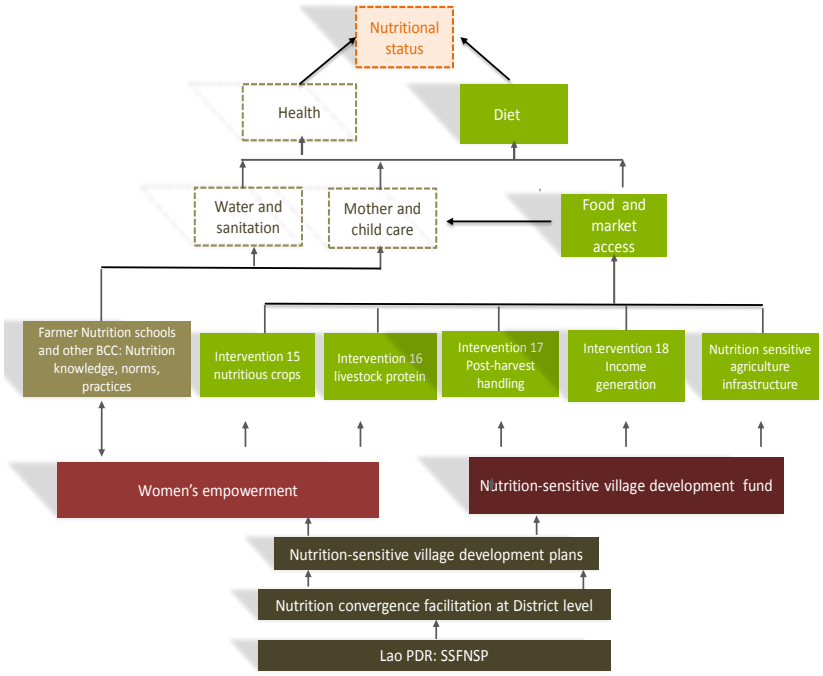
26. The FNS, which will support the implementation of cluster (iv) of the SBCC strategic action plan, will be designed around the five dimensions of women empowerment in agriculture: (i) decisions over agricultural production; (ii) power over productive resources such as land and livestock; (iii) decisions over income and household spending, (iv) more leadership in the community; and (v) women's time use. As such, the FNS will aim to balance household food availability and utilization from agricultural production, wild food collection and purchase throughout all seasons of the year, thus enabling villages to increase dietary diversity from their village agro-biodiversity. Topics will also include food storage and processing and food preparation and link with health sessions on WASH, infant and young child feeding (IYCF), in-door air pollution and maternal care and nutrition The FNS will convene women, particularly women in the reproductive age (WRA), but also older women who influence cultural beliefs, particularly concerning food and other taboos related to pregnant women and infant children. Men will be also targeted during regular village meetings, e.g. large animal vaccination meetings (cattle, buffalo) with the same messages (one female FNS facilitator to join).

27. The curriculum and monthly session plans for the FNS (including household counseling and cooking demonstrations as part of cluster iv) will be part of the national social behaviour change curriculum, which will include all five clusters. Lessons and methodologies learned from the PRF II-piloted Livelihood and Nutritional Gains Project (LONG), INGOs implemented Linking Agriculture, Nutrition and Natural Resources (LANN) approach and SSSJ's nutrition education programme (using videos) could provide starting points for the FNS, the work of which will also be aligned with ongoing formative research on behaviour change, with UNICEF funding health related topics and SSFSNP

supporting agricultural related behaviour topics. The overall scheme of the FNS is through demonstration and learning to promote balanced diets along the life cycle harnessing optimized household food acquisition from own production, wild food collection and purchase.

28. FNS implementation will be coordinated by the local District Health Office (DHO) with the support of the DAFO *and* the village nutrition committee (or any other existing relevant committee, e.g. village health committee). Communities will either work with the three village facilitators supported by HGNDP or support the new election of up to three female FNS village facilitators per village who will also be trained to become the village focal points for the nutrition-sensitive agriculture groups (see Activity 2 below). MoH/PHO and DHO will provide relevant training-of-trainers (ToTs) courses for capacitating stakeholders and volunteers, using the same master trainers wherever possible, in cooperation with the HGNDP project

Figure 4: Project pathways to improved household nutrition



29. FNS ToT courses shall cover the 5 BCC clusters holistically. E.g. aspects of IYCF will be covered under cluster i and iv. During the implementation of both the *SSFSNP* and the HGNDP, a joint pool of master teachers and villagers could be established up and trained. Future projects could work with these volunteers and trainers. A contracted service provider will initiate FNSs programme at village level. The FNS will be first tested in a selected number of pilot villages (e.g. 2-3 FNS per District) during which the service provider will conduct knowledge and performance tests of the village facilitators. The pilot FNS would be used as a learning hub for other villagers.

30. The role of graduates from the health schools to support villages on a case-to-case basis would be explored during project implementation. Students could be invited to write their thesis about dietary behaviour change, with particular focus on identifying socio-cultural barriers and drivers of success. The Hmong and Mon-Khmer groups e.g. have different dietary, care and infant and young child feeding practices. Also their preference for domestic versus wild foods differs significantly.

31. *Activity 2: Household availability and utilization of nutritious food*. Under the VDP, existing household food consumption habits, food sources by season for the six food groups, and cooking and food preservation practices will be mapped. Building off this VDP data, LWU representatives with prior Project nutrition training and with DHO, DAFO and Project national and international gender/nutrition expert support, will facilitate a FNS-led discussion with village women on opportunities to increase, diversify and seasonally improve household supply of nutritious food. That discussion will lead to the identification of household and group investments eligible for Project grant support. This will include two types of activities:

(ii). *FNS-initiated group or individual household activities targeting household vegetable production*. For home and communal gardens, the Project will: (i) promote the production of vegetables/fruits containing fat (sesame, pumpkin seeds, coconut), plant-iron (ivy gourd, yard long beans) and vitamins: ─ crops with nutritional added value that could also be marketed (e.g. moringa , garlic, shallot, lemon/limes and sesame) will be particularly promoted; (ii) support production technologies such as nurseries or net houses to increase vegetable production during the rainy season; (iii) enhance green agriculture practices such as compost and green insecticides and herbicides; and (iv) raise awareness on good husbandry practices. Home garden starter kits, based on actual village needs, will include seeds and seedlings, material for netting and fencing (plastic net rolls, metallic wire, nails), small tools (hoe, spade, hose) etc. Women will be given the opportunity to choose between household or community-based gardens. To encourage solidarity, each interested household will be allocated an equal sized space in a community garden. Where possible, home and community garden establishment will be supported by the development of multi-purpose village water supply and micro-irrigated gardens.

Specifically, the Project will support the production of easy-and quick-to-grow nutritious crops, including:

- Micronutrient rich vegetables (e.g. amaranth, penny word, gourd leaves, moringa, pumpkin, morning glory, mustard greens, kale) for home-consumption.
- Micro-nutrient rich fruits (e.g. papaya, mak lot, pineapple, Indian gooseberry, passion fruit) for home consumption.
- Protein, beta-carotene, and mineral rich staples to be intercropped with rice (e.g. amaranth, millet, job's tear, sweet potato) intercropping of legumes for home consumption
- Protein rich beans (e.g. soybean, pigeon pea, garden pea, wing bean, mung bean) for home-consumption and to improve soil fertility
- Fatty and protein rich seeds and nuts (e.g. peanuts, sesame, pumpkin/seeds)
- Crops with nutritional added value that could also be marketed.

(ii). *FNS-initiated* production *of small livestock and aquaculture products for improved household protein supply.* This activity aims at promoting small livestock and aquaculture amongst vulnerable households by supporting livestock/aquaculture access and better husbandry, especially related to animal and aquatic health. The intent is to raise small livestock and aquaculture products, primarily for home consumption (meat, eggs, insects and aquatic products), with only household surplus for sale at local markets. It does not aim to raise livestock/aquatic products at a commercial scale. Project support will include (i) guidance on building animal housing and fish ponds, primarily using local materials; (ii) training in animal husbandry and aquaculture management, including at least two women per village trained as community animal health workers (CAHWs); (iii) funds for local animal and aquatic stock purchase, vaccination and parasite control; and (iv) seeds and guidance for forage production. The construction of secure animal housing would be a condition of support for livestock purchase. Women would be encouraged to form groups to manage activities such as pig raising and aquaculture production. Trained CAHWs would be provided with a basic veterinary kit and encouraged/enabled to charge for services provided to livestock owners at village level.

Specifically, to improve household protein intake the Project will support the production of small livestock and aquaculture, including:

- Poultry (chicken, ducks)
- Fish and other aquatic animals including frogs
- Goats
- Pigs,

32. Project investments supporting women-led household availability and utilization of nutritious food will be one hundred per cent grant financed, but beneficiaries would be required to have access to and usage of a toilet as a condition of entry. Women/women's groups will be eligible for grants of up to $120 per household/member. Groups could also invest in technology to improve post-harvest handling and food storage, processing and marketing, including drudgery-reducing technologies such as rice milling and the fermentation or drying of produce, or the introduction of energy saving cooking stoves. The DAEC/TSCs will provide technical support. Investments under both of these initiatives would be financed through the village development fund described in Output 4.

Outcome 3 – Sustainable and inclusive market-driven partnerships established

Output *4:* Profitable investment in nutrient-sensitive, climate-adapted agriculture.

33. *Activity 1. Strategic Investment Planning*. The Project will identify commodities that have investment potential and which are in compliance with the provincial socio-economic development plans (SEDPs). The selected commodities will be chosen based on having strong potential for: (i) the commercial production of nutritious food; (ii) export and/or import substitution; (iii) involving rural households to undertake investments and thereby expanding their production/income and creating incremental jobs; (iv) engaging and organizing poor farm households; and (v) climate change adaptability. For each selected commodity, a Strategic Investment Plan (SIP) will be prepared, including all potential activities within the value chains inherent in that particular commodity segment. The SIP will list the potential types of investments eligible for Farmer Organization (FO) and Public-Private Collaboration (PPP) support and each type of investment will be accompanied with a realistic business model/financial analysis, necessary Investments/upgrading not directly supported by the PPP output, e.g. training of farmers, organizing farmers into groups, etc., as well as an analysis of other potential co-financiers.

34. As part of the SIP process, it will be important to analyse and understand the interactions between bio climate and soil type, as well as between agronomy, crop management, pests and diseases, and bio-climate. Information thus generated will allow for confirmation of which of the targeted commodities are best suited to specific localities within the project area, as well as allowing for identification of cultural practices related to land preparation, mulching, ground cover, intercropping, irrigation, fertilizer application, and other aspects of management that could enhance suitability. Appropriate adaptation measures (social, behavioural, technical, infrastructural) along the value chains should then be developed, including for storage and drying facilities. This should be done in a participatory fashion with smallholder farmers and resource users in the different localities, to allow for inclusion of local and traditional knowledge, and for cultural and gender-differentiated acceptability. Some of these adaptation options may have implications for road infrastructure and transportation.

35. In pursuit of linking agricultural commercialization with the nutrition initiative, the SIP study will also include a specific study on the feasibility of establishing a nutrient-rich child complementary food enterprise in Lao PDR[74]. The SIP will inform the VDP process and be used as the framework for inviting farmers to form production groups and calling entrepreneurs to express their interest for investing in the Project area. Terms of reference for SIP analysis are detailed in Appendix 4, Annex 4.

36. Activity 2: Village development fund (VDF). Under this activity, the Project will co-finance VDP-identified community and farmer group sub-projects in profitable and sustainable nutrient-sensitive agriculture infrastructure and production.

(i). *Nutrition-sensitive, climate-adapted agriculture Infrastructure*. Under this activity, nutrition-sensitive agriculture production infrastructure, identified as part of the village planning process under Output 2, will be established through co-financed grants. Public

[74] This would be conducted in collaboration with other partners (e.g. the Clinton Health Action Initiative (CHAI) or GRET, which have successfully supported the establishment of such food companies in other countries)

infrastructure investment grants of between LAK 160 million (USD 20,000) and LAK 320 million (USD 40,000) per village, dependent on village population, will be available for infrastructure investments that provide public good benefits supporting the achievement of village food security and improved nutrition in an environment of climate change. Such investments could include, *inter alia*, irrigation, including multi-purpose village water supply and micro and drip irrigation, village roads, marketing facilities, soil and water protection (terracing, intercropping, agroforestry etc.), fish ponds and aquatic resource protection for sustainable harvesting, etc. In cases in which existing village infrastructure would need to be rehabilitated this would be given priority over new investments. In the case of irrigation development/rehabilitation, the Project will assist farmers to form water management associations and set water use rules with a view to avoiding water access conflicts, which often arise in upland areas during the dry season. The project will also explore technology and crop varieties for more efficient dry season water use. This could include low cost drip irrigation systems[75] A negative investment list will guide community choices (See Appendix 4, Annex 2).

The implementation of the grant by the VITs will be consistent with international best practice community-driven development (CDD) procedures and IFAD safe guards as detailed in the PIM. Beneficiary contribution of total construction costs of public good infrastructure works will be at least 15% (in-kind), with the Project funding 70% and Government funding the remaining 15% through parallel investments. In-kind contributions will primarily be labour and construction materials. Cross-village public infrastructure investments at kum ban level could be proposed as part of the planning process (e.g. joint access road). Detailed operation and maintenance plans will be included in proposals, and villagers must be willing and able to operate and maintain any infrastructure that will be built. Beneficiaries will also monitor outputs and outcomes at the community level. The value of in-kind contributions will be set through a Project Unit Cost Database which provides an average rate for building materials and unskilled and skilled labour, per district, based on what is commonly paid in the area[76]. Where infrastructure development can be managed through community force account procurement, the Project will pay for villagers skilled (technical staff hired by the community) and unskilled labour for infrastructure development. Voluntary land contributions could be considered as part of the communities' contribution. The Project will, where practicable, use community force account processes for community infrastructure investments, designed to create jobs for village youth and promote community ownership in its operation and maintenance. All major construction works designed by MAF and other GoL PDT technical agencies will be overseen by UN Habitat. Where possible, the Project will partner with WFPs "Food for Assets" programme and with PRF II in developing rural infrastructure. In addition to community contributions, kum bans may also seek additional support from local government authorities, either in the form of cash or in terms of technical assistance, recurrent costs and longer-term maintenance support. Similarly, kum ban and districts may seek financial or technical support from other donors or international NGOs.

For any given sub-project, the Project contribution will cover: (i) the actual investment at village/kum ban level; and (ii) district offices overhead/supervision costs, based on work plan (limited to 2% of the kum ban allocation).

To ensure sound technical quality of Project investments the SSFSNP will: (i) employ UN Habitat to oversee the MAF and other GoL PDR technical agency engineering sub-project design quality and construction supervision for all infrastructure contracts; (ii) utilize appropriate sector standards to the extent these are available, with a clear focus on critical

[75] http://www.ideorg.org/OurTechnologies/IDEal_Drip_Technical_Manual.pdf; http://www.ideorg.org/OurTechnologies/IDE_DripAlbum.pdf
[76] Where relevant the SSFSNP would use the PRF Unit Cost Database.

design elements which cannot be compromised; (iii) support harmonization of SSFSNP 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 as well as to relevant government staff, including district engineers; and (v) intensify monitoring and external evaluation of technical quality, efficiency, sustainability and outcomes.

Any water development 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). 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.

(ii). *Productive farmers' organizations.* To support increased agriculture production and *productivity*, improved nutrition and climate adaptation, the Project will, on a competitive basis, and building off the aforementioned SIP analysis, support gender-inclusive farmer groups/associations to establish innovative, sustainable, climate adapted, nutrient-rich food crop, animal protein production, sustainable natural resource management including community-based forest management and post-harvest storage, processing and marketing facilities at village level. The project will encourage farmer group investment in the most profitable commodities for their location, with a view to achieving greater market power through higher volume production. The DAFO-ECO[77] will inform villagers on technical options, particularly concerning the implementation of the 4 priority agricultural interventions under the NNSPA. For women's groups targeting improved household nutrition, the project will finance 100% of grants. For gender disaggregated and mixed-gender farmers groups investing in income-generating activities (IGA), the Project will co-finance 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) and not more than LAK 24,000 (USD 3,000) per group. Beneficiary co-financing will be through in-kind contributions as described above. Project-supported farmer groups must, in aggregate at kum ban development plan level, include at least 50 per cent female members, while individual groups must include at least 30%t of members from community-identified poor households [78]. All supported investments must demonstrate financial sustainability beyond the initial Project assistance. Up to 25% of the Project grant could be used by beneficiary groups to contract technical support from kum ban Technical Service Centres (TSCs), trained lead farmers or farmer organizations, civil society organisations or NAFRI, under performance-based contracts. The Farmer's Union will coordinate farmer-to-farmer extension. Such groups could be facilitated by a Project-wide approach to farmer field schools (FFS). The MAF Department of Extension and Cooperatives (DAEC) is expected to provide a guiding role in the delivery of technical services.

Once formed, farmer groups will be required to establish a small (2 person) Management Team. One person of this team will be from poor household. This team, elected by group members will be the primary contact point for VIT/DAFO and for service providers as service delivery contracts are implemented. The Management Team will represent the interests of all group members and will be the signatories required to confirm to the VIT and DAFO that service provider milestones have been delivered to a satisfactory standard.

Four agricultural activities, in particular, will be promoted under this activity. They include:

[77] District Agriculture and Forestry Office – Extension and Cooperatives Office

[78] Project experience in Lao PDR shows that, dependent on activity and community, some farmer group activities may be most successful if implemented through gender disaggregated groups. The project would therefore require a gender balance at the level of the KDP, rather than within individual groups, but each group, irrespective of its gender mix, would require 30% participation by community-identified poor households.

- Production of nutrient dense crops
  - Colorful roots tubers (e.g. sweet potato, *alocasia* species)
  - Non-rice staples with higher protein, Vitamin A and mineral content (e.g. job's tears, millet) intercropped with beans (e.g. soybean, pigeon pea, garden pea, wing bean, mung bean)
  - Micro-nutrient rich colorful and green leaf vegetables (moringa, pumpkin, pennywort, amaranth, chayote leaves, kale, *phak tamnin*, morning glory, etc.)
  - Micro-nutrient rich colorful fruits rich in Vitamin C and Vitamin A (e.g. papaya, pineapple, Indian gooseberry, tamarind, jackfruit, *mak lot*, passion fruit, soursop, local plum)
  - Oilseeds (peanut, sesame, *mak kapob*) or fatty nuts
- Production of animal based protein (e.g. poultry, fish, frogs and other aquatic animals, insects etc.);
- Post-harvest handling, food storage and safe and nutrition enhancing food processing and food preservation technologies to ensure year-round food availability; and the
- Promotion of income generating activities (IGAs) including agricultural products as well as non- timber forest products, traditional herbs, indigenous food

Where villages or village groups select CBFM investments, a simple participatory forest inventory will be used to assess the village forest resource, in which villagers and local DAFO staff work together to identify the current tree species composition in the village forest, 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.[79]. 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.

Service providers 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 will 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.

All agricultural or forest land used or managed by Project supported village groups/associations/cooperatives will be surveyed and land or forest use rights issued if they have not already been provided. Where appropriate, PAFO and PoNRE GIS units will be assisted to create GIS databases of CPFM areas.

[79] Where villages are assigned community forest management rights, household timber extraction is limited to periodic house construction needs.

All supported investments will have to demonstrate financial sustainability beyond the initial Project assistance. Up to 25% of the Project grant could be used by beneficiary groups to contract technical support from kum ban Technical Service Centres (TSCs), lead farmers or farmer organizations, civil society organisations or NAFRI, under performance-based contracts. Groups could also be facilitated by a Project-wide approach to farmer field schools (FFS) (see Output 2) The DAEC is expected to provide a guiding role in the delivery of technical services, supported by NAFRI on appropriate technology.

37. In the absence of an effective cooperative law, new farmer cooperatives are not expected to form during the first 2-3 years of Project implementation. Subsequently, when the law is in place, famers engaged in profitable commodity production under Output 4, activity 2 will be encouraged to associate at kum ban or district level with a view to gaining competitive advantage. Grants of up to LAK 80 million (USD 10,000) will be available on a co-financing basis to assist farmer groups to organise collective enterprises covering, amongst others, input supply and product aggregation, storage, processing, marketing, branding etc. The cooperative will be expected to contribute a matching amount to the Project grant, including at least 30% in cash or loan. The DAEC will play a leading role in cooperative development.

Output 5: Linking *farmers to markets.*

38. *Activity 1. Contract farming review*. The Project, supported by FAO's contract farming expertise[80] and drawing on in-country LEAP[81], LURAS[82] and PEI Phase II[83] experience and resources, will, through MAF-DAEC and the Ministry of Planning and Investment (MPI), review a sample of existing contracts across Project districts to assess the challenges and weaknesses of the current programme and propose adjustments to government legislation, regulations and implementation procedures underpinning contract farming agreements with a view to establishing fairer, more equitable and more productive contract farming agreements and programmes, benefiting farmer and investor alike. This will include technical assistance in support of: (i) improved contract farming policy, regulatory framework and contractual proceedings; (ii) the preparation of training material and training of District staff and farmer groups to strengthen their contract negotiation skills, and (iii) assistance to contract farming investors to link with Project-supported farmer groups. See Appendix 4, Annex 1 for terms of reference.

39. Activity 2. Public-private Partnership (PPP). Building off the SIP analysis and associated farmer group investment priorities, the Project will pilot the use PPP to generate investments and job opportunities among rural enterprises and households, with particular attention to poor and women-headed households in the Project area. SSFSNP will catalyse private sector agro-enterprise and contract farming investments in the project area by co-financing up to 49% of investments that generate incremental markets and value addition for raw material, leading to incremental production and increased income and job opportunities among rural households. Applications with higher levels of own contribution will be assessed as more competitive. Up to 30% of a PPP grant could be used for capacity building purposes. Within this limit, the Project will co-finance up to 50% of the cost of (i) vocational training for enterprise staff and (ii) output/outcome-based contract farming extension contracts targeting improved commodity production and productivity that include at least 30% of poor and women-headed farm households. Extension services will, preferably, be delivered by the contract farming/input supplier investor staff, however, enterprises could also employ experienced farmers or third party technical advisors (e.g. TSCs, NGOs, Non-Profit Association (NPAs), NAFRI, etc.) to deliver such services. All training materials should be developed with a food security and nutrition perspective.

[80] UNIDROIT/FAO/IFAD legal guide on contract farming: http://www.unidroit.org/english/guides/2015contractfarming/cf-guide-2015-e.pdf
[81] Laos Extension for Agriculture Project
[82] Laos Upland Rural Advisory Service.
[83] Poverty Environment Initiative Phase II

40. Only legally registered cooperative societies and companies of at least 12 months standing will be eligible to apply. Entities that are the subject of bankruptcy, criminal investigation, fraud, corruption or are in default of contractual agreements will be ineligible. PPP investments will be awarded on a benchmarked competitive basis for capital investments in civil works, equipment (processing, packaging, energy generation or environment protection), transportation and marketing, related directly to the core activity of the investor. PPP investments approved by the National Project Steering Committee (NPSC) will be forwarded to IFAD for its no objection. Poor people's income and jobs, value added products, and productivity and market access and gender equality will be important criteria in investment proposal evaluation, together with commercial viability, environment impact and cost effectiveness assessments. The PPP programme will be underpinned by a technical, business management, accounting and Information Communication Technology (ICT) capacity building program for successful applicants with a view to improving their farmer service capacity, profitability and enterprise linkages, both at the local level and to upstream quality suppliers and markets.

41. Co-financing for contract farming investments will start at LAK 160 million (USD 20,000) as a minimum and reach up to LAK 400 million (USD 50,000) as the maximum. The beneficiary of such a grant will be expected to match the PPC grant with an equivalent amount in cash. The PPP fund will be managed by a competent and experienced contracted service provider with funds allocated through transparent and fair processes with disbursement tranches monitored closely and grants systematically audited. This Output will be reviewed at Project mid-term and scaled up if positively assessed.

42. For each intervention supported under Output 5, an impact analysis would be conducted by contracted national and international TA including.: (i) cost benefit analysis at both farm enterprise and household levels using with and without investment scenarios; (ii) for medium term capital investments, the estimation of capital NPV and IRR; (iii) a full financial analysis of investments by intermediary enterprises, including monthly cash-flow/working capital analysis during the first years to avoid liquidity problems and development of a small business plan; (iv) investment in business derived social infrastructure –bridge, piece of strategic road, water supply, electricity, gas, water treatment etc. should all be supported by a feasibility study and undergo financial analysis; and (vi) an economic multiplier impact assessment should be conducted for the selected value chain. Approved investments would develop an Action Facilitation Plan: this will include preparation of a Gantt chart providing the time line for all activities to be supported by the respective Programme. The chart would also identify the responsible party, place and time and how it is measured.

43. PPP Implementation Arrangements. Legal entities eligible to apply for PPP grants include: (i) sole proprietor/individuals; (ii) cooperative societies/associations; (iii) partnerships; and (iv) companies. As par to the eligibility the entities mentioned should be able to provide the documents detailed below.

- Business License
- Certificate of registration and extract from Registrar
- Annual tax Return Report (1 year)
- Memorandum and Article of Association
- Permission for the SSFSNP to collect information from trade partners.

44. None of the above entities shall be eligible for support under the following circumstances:

- Having gone bankrupt or being liquidated; having its operations managed by courts; signing agreements with creditors, having its operational activities suspended; being subject to procedures concerning these matters or being in a condition due to a similar situation as per national laws or arrangements;
- Being sentenced for offences related to their own business which cannot be appealed;
- Being convicted of gross abuse related to business matter which can be confirmed by the AIU;

- Non performing obligations related to the payment of social security contributions or tax payments in accordance with the legal provisions in Vietnam;
- Being subject to an adjudication due to being involved in fraud, corruption, a criminal organization or other illegal activity which cannot be appealed;

45. The beneficiary enterprises contribution to the investment can be made in cash and/ or in kind. However, the in-kind contribution should not exceed 50% of total counterpart contribution. The in-kind contribution may include e.g.:

- Additional labour;
- Land use rights;
- Equipment, vehicles, building and other capital goods and/ or raw materials contributed to build up/ acquire such goods during the agreed Programme timeframe
- Purchase and rent of land or existing buildings for the purpose of the PPP
- Working capital

46. The in-kind contribution must be supported by appropriated documentation stating its value. The documentation must be based on market evaluation undertaken by an independent authorized entity who will be hired by NPCO to undertake the evaluation. In-kind assets directly related to the investment with PPP support can be accepted if procured/user-rights have been obtained within 24 months from the time of submitting the concept note. In-Kind contribution cannot exceed 50% of total contribution by the enterprise.

47. The PPP will not accept the following assets neither as the enterprises contribution nor as expenditures eligible for reimbursement:

- Leasing of equipment, land and facilities
- Bank charges, cost of guarantees and similar charges
- Value of intellectual property rights
- Value of previously existing inventory used for the production of the Programme goods and/ or services
- General costs involved of an investment Programme proposal development/design (architects', engineers', consultants' and general legal fees, costs of feasibility studies for preparing the Detailed Investment Proposal and costs for acquisition of patents and licenses, etc.).

48. The investment supported by a PPP grant shall assist a minimum of 1 rural household per USD 500 of co-financing e.g. total PPP co-financing of USD 50,000 should provide direct tangible benefits to a minimum of 100 rural households including 40 poor, women headed or minority households. The direct tangible benefit should be in the form of:

- Rural household sale of raw material to the enterprise
- Rural household receiving training and advisory service
- Rural household receiving production credits
- Rural household formed into cooperatives/associations jointly own intermediary processing/assembly facility for raw material

Annex 1 International Consultant terms of Reference

A. Chief Technical Advisor

No. of positions:	1
Duration:	12 person months/year for 3 years, then 6 person/months/year for 2 years
Recruitment:	International
Reports to:	Project Coordinator (PC) at MAF on operational matters and DAEC Director on technical matters

Purpose

1. Under-nutrition and food insecurity remain stubbornly high in the upland areas of Lao PDR, with stunting levels of children under five years, as high as 61 per cent in some provinces, the impact of which is lifelong. Under-nutrition blights lives and undercuts social and economic development. Children who are chronically malnourished in the critical first thousand days, beginning at conception, can suffer irreversible damage to their physical and mental development. Improving women's nutrition is critical to breaking the intergenerational cycle of under-nutrition and; given the negative impact that chronic under-nutrition has on health, productivity, educational attainment, and income-earning, its redress is essential to sustained national economic growth.

2. As part of the Lao Government's vision to graduate from Least Developed Country status by 2020 and with its strong commitment to a prosperous country free from food insecurity, malnutrition and poverty, the Lao Government has requested for a USD 30 million grant from the GAFSP to implement a food security and nutrition programme in the country called "Strategic Support for Food Security and Nutrition" in short SSFNSP.

3. The SSFSNP aims to contribute to reduced extreme poverty and malnutrition in Lao PDR through the improvement of food security and nutritional outcomes for poor rural communities. As per design, in the SSFSNP nutrition will be a cross-cutting, not a stand-alone theme tacked on to other activities. The key objective is to improve people's diets during the life cycle, with a particular focus on the 1,000 day window, with foods sourced from own production, wild food collection and purchases.

4. This will be, in part, achieved through the development of sustainable, climate-adapted, nutrition-rich upland crop and livestock farming systems (nutrition-sensitive agriculture) as well as through the roll-out of nutrition programmes at village levels for women. The design of the SSFNSP is aligned with the Government's National Nutrition Strategy to 2025 and Plan of Action 2016 – 2020 (NNSPA) and the MOH will take the lead in rolling out the nutrition activities in close partnership with the Ministry of Agriculture and Forestry (MAF), the Ministry of Education and Sport (MoES) and the Lao Women's Union (LWU). For SSFNSP implementation the Project will hire/support local officials at District levels as well as provide stipends to local facilitators or volunteers at village and/or kum ban level.

5. The National Nutrition Committee (NNC) and the National Nutrition Secretariat (NNS) will provide strategic guidance for operation and will be responsible for the monitoring of the SSFSNP nutrition activities. The CTA will work closely work with NNC and NNS, as well as with Nutrition Advisors at WFP and IFAD Offices in Rome for guidance on internationally acknowledged best practices.

Key Responsibilities and Duties of the Chief Technical Advisor (CTA)

6. The CTA will advise the Project on all aspects of coordination, management and technical issues as requested by the PC and the overall programme management including:

(i). Technical support

- provide guidance to the PC and Project team members on the effective implementation of participatory, community driven development processes;
- guide Project investment in improved household and commercial agriculture production to ensure the achievement of the four NNSPA agriculture-related interventions and improved household food security and nutrition;
- support the PC in establishing a convergent approach to NNSPA implementation in the project Provinces through strong linkages between projects and agencies supporting improved household nutrition in the Project area and at national level.

(ii). Budget and Programming

- assist the PC to develop the AWPB for submission to NPSC and IFAD Lao PDR, including relevant updates and revisions;
- develop and regularly update the Project multi-year work plan based on budget and the project document; and
- present the annual operational plan (detailed by semester) and financial programming to the NPSC and PPSCs and obtain their validation.

(iii). Coordination and Implementation of Activities

- assist the PC to coordinate implementation of the Project tasks and activities detailed in the Project document;
- assist the PC to prepare TORs, tenders and contract documents for equipment, works and professional services; and
- assist the PC to prepare for NPSC and PPSC meetings.

(iv). Financial Performance: Commitment, Ordering, and Payment, within the Limits of Signature Authorities

- assist the PC in establishing and maintaining an adequate financial management and procurement system under IFAD and WFP guidelines and following the GoL regulations;
- ensure compliance with deadlines of monitoring and financial reporting required by IFAD and WFP; and
- facilitate the work of auditors during their visits to the Project and assist the PC to implement audit recommendations in daily management.

(v). Monitoring, Reporting, Communication

- assist the PC to establish and operate the Project monitoring and evaluation (M&E) and knowledge management (KM) system under IFAD and WFP guidelines, in close concert with the MAF ProMIS and Project national M&E and KM advisors;
- assist the M&E & KM team in implementing the defined capacity building programme related to M&E & KM and engage in on-the-job coaching of assigned M&E and KM staff at all levels
- assist the PC in providing and submitting semester progress reporting; and

(vi). Human Resources Management

- assist the PC in establishing an overall HR plan for the SSFSNP staff;
- assist the PC to establish a systematic staff performance evaluation system and support its implementation; and
- identify and communicate training requirements.

7. **Thematic Specialist**. As a sector specialist in participatory planning and climate-adapted nutrition-sensitive agriculture, the CTA also carries responsibilities in the transfer of skills. In line with these themes. He/she will review and finalise the terms of reference for the Service Providers (SPs) for the Project bottom-up participatory planning process detailed in Outcome 2, Output 2, advise the PC on SP tendering and recruitment and maintain oversight of the implementation performance of the SP(s) as identified by their achievement contract milestones. The CTA will also apply his/her expertise to the implementation of the resulting VDPs, particularly concerning improved household nutrition, paying particular attention to the key cross-cutting issues of gender and social equality, environment and climate change and governance for development.

Qualifications for the Chief Technical Advisor

8. The successful candidate will be a mature, team oriented professional with good analytical and communication skills. He/She should be able to strike rapport with personnel at different levels, including the GoL, international organizations and other stakeholders. A strong self-motivated individual working with no or minimal supervision and able to travel to the rural areas and meet tight deadlines is required. The person should have excellent skills in written and spoken English, be able to converse in Lao and be fully conversant with computer use.

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	MSc or higher qualification in agriculture or related field	10
2	Practical experience with regard to government-led agriculture and rural development investment project implementation in South-east Asia	20
3	Depth of familiarity on: • Bottom-up community driven development planning and community managed investment implementation; • Small-holder based nutrient-sensitive agriculture development; • Cross-cutting themes of gender equality, environment and climate change and governance for development; • Farmer group establishment and empowerment • Processes for linking farmers to markets	 15 15 10 10 10
5	Experience in project management, in particular Projects funded by International Financial Institutions	10
	TOTAL	**100**

B. International Multi-sectoral Nutrition Advisor

No. of positions:	1
Duration:	2 person months/year over 6 years
Recruitment:	International
Reports to:	Project Coordinator at MAF on operational matters and MOH/National Nutrition Secretariat on technical matters

Purpose

1. Under-nutrition and food insecurity remain stubbornly high in the upland areas of Lao PDR, with stunting levels of children under five years, as high as 61 per cent in some provinces, the impact of which is lifelong. Under-nutrition blights lives and undercuts social and economic development. Children who are chronically malnourished in the critical first thousand days, beginning at conception, can suffer irreversible damage to their physical and mental development. Improving women's nutrition is critical to breaking the intergenerational cycle of under-nutrition and; given the negative impact that chronic under-nutrition has on health, productivity, educational attainment, and income-earning, its redress is essential to sustained national economic growth.

2. As part of the Lao Government's vision to graduate from Least Developed Country status by 2020 and with its strong commitment to a prosperous country free from food insecurity, malnutrition and poverty, the Lao Government has requested for a USD 30milllion grant from the GAFSP to implement a food security and nutrition programme in the country called "Strategic Support for Food Security and Nutrition" in short SSFNSP.

3. The SSFSNP aims to contribute to reduced extreme poverty and malnutrition in Lao PDR through the improvement of food security and nutritional outcomes for poor rural communities. As per design, in the SSFSNP nutrition will be a cross-cutting, not a stand-alone theme tacked on to other activities. The key objective is to improve people's diets during the life cycle, with a particular focus on the 1,000 day window, with foods sourced from own production, wild food collection and purchases.

4. This will be, in part, achieved through the development of sustainable, climate-adapted, nutrition-rich upland crop and livestock farming systems (nutrition-sensitive agriculture) as well as through the roll-out of nutrition programmes at village levels for women. The design of the SSFNSP is aligned with the Government's National Nutrition Strategy to 2025 and Plan of Action 2016 – 2020 (NNSPA) and the MOH will take the lead in rolling out the nutrition activities in close partnership with the Ministry of Agriculture and Forestry (MAF), the Ministry of Education and Sport (MoES) and the Lao Women's Union (LWU). For the implementation SSFNSP will hire/support local officials at District levels as well as provide stipends to local facilitators or volunteers at village and/or kum ban level.

5. The National Nutrition Committee (NNC) and the National Nutrition Secretariat (NNS) will provide strategic guidance for operation and will be responsible for the monitoring of the SSFSNP nutrition activities. For the monitoring activities the Multi-Sectoral International Nutrition Advisor will closely work with NNC and NNS as well as with the World Food Programme (WFP) who takes the technical lead for monitoring reports to the GAFSP Coordination Unit in Washington DC. The Advisor will also consult with the Nutrition Advisors at IFAD Office in Rome for internationally acknowledged best practices.

Key Responsibilities and Duties of the Multi-Sectoral International Nutrition Technical Advisor

6. By including international best-practices into final design and implementation, the responsibilities include (but are not limited to) the following:

(a) Coach, mentor and train the MOH, MAF, LWU and MOES central level staff on all aspects of SSFNSP so that the MOH is equipped to lead the roll out of the nutrition programme/s at the local level with multi-sectoral partners.

(b) Advise on and directly contribute the Project Operations Manual to ensure the quality of the conceptual design for the nutrition programme/s.

(c) Advise on and directly contribute to field manuals for the implementation the climate-adapted nutrition programmes (set up of the women's programme, the school programme and the NBC roll-out) outlining key nutrition principles for implementation which will guide the recruitment and management of staff through related check-lists.

(d) Advise MoH and MAF on the design of the NBC and appropriate IEC materials and closely liaise with other partners/organizations working on behaviour change communication (e.g. World Bank, UNICEF, IFAD). Liaise with IFAD and the SSSJ programme to use available innovative IEC materials (nutrition videos, songs, etc.).

(e) Advise on the methods, facilitation and documentation of the participatory multi-year and multi-sectoral food security and nutrition investment plans.

(f) Advise on the logical and effective implementation of the women programme with regard to nutritional requirements of target groups, hygiene and food safety.

(g) Support the identification of viable climate-adapted business models for the women programme and the linkage to the women programme as well as the set-up of the nutrition credits.

(h) Advise on the logical and effective implementation of the NBC programme with regard targeted behaviour change and desired learning outcomes.

(i) Identify the capacity building needs of different implementers of aforementioned programmes and advise on the capacity building programme (curriculum, training schedules, follow-up trainings and recruitment programme)

(j) Support WFP in the design of the monitoring plan for the nutrition programme and advise on the effective reporting from local to central level to ensure that the NNS and NNC are systematically informed with quality MIS data on a quarterly basis.

(k) Support NPCO in the design of service contracts or TOR for village development planning or other activities as needed

(l) Together with NPCO, collaborate with other programmes on nutrition with particular regard to the GOL's adopted convergence approach.

(m) Advise the Project on the best learning options for study tours and exchange visits.

(n) Support NPCO staff in a timely manner in the preparation of their contribution to the Programme AWPB and annual procurement plan.

(o) Advise the SSFSNP on climate-adapted nutrition training opportunities and exposure opportunities;

(p) Present the project in meetings/workshops on climate-adapted nutrition and offer advice/technical opinion with special focus on the nutrition programme/s as needed.

Qualifications for the Multi-Sectoral International Nutrition Technical Advisor

7. We are looking for a trained enthusiastic nutritionist with solid and in depth knowledge of food habits and customs and several years of experience working in community nutrition or food security programmes in the field and in fostering attitude and behaviour changes in favour of a more diversified and nutritious diets of local communities. For this it is requested to have a formal academic

qualification in nutrition (or related field) with at least 10 years at a senior level in programmes/projects implemented by Government in a developing country, including experience in South-east Asia, preferably Lao PDR.

Moreover, the successful candidate has proven knowledge of:

- Developing and implementing food security and/or nutrition interventions on the ground
- Developing training and awareness raising means on food habits & nutrition
- Participatory assessments, village development plans and analysis
- Sound knowledge in traditional food and agricultural practices in Lao PDR, particularly among ethnic groups in the uplands and experiences in approaches used for changing attitudes and behaviour regarding food and food intake in Laos
- Knowledge of Government of Lao PDR strategies, objectives and plans for the nutrition and agricultural sector particularly regarding food security
- Knowledge of the broad spectrum of development programmes in Lao PDR focusing on food security and nutrition and the various approaches applied in improving food security and nutritional intake

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

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	MSc or higher qualification in nutrition or related field	10
2	Practical experience with regard to government-led agriculture and rural development investment project implementation in South-east Asia	20
3	Depth of familiarity on: • Links of women empowerment and nutrition; • Nutrition behaviour change strategies and communication; • Nutrition-sensitive agriculture • Gender and development	 10 10 10 10
4	Capacity building, curriculum and IEC development	20
5	Experience with project management, in particular those funded by International Finance Institutions	10
	TOTAL	**100**

C. Forage and Seed Production Advisor

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

Purpose

1. The SSFSNP aims to contribute to reduced extreme poverty and malnutrition in Lao PDR through the improvement of food security and nutritional outcomes for poor rural communities'. This will be, in part, achieved through the development of sustainable, climate adapted, nutrition-rich upland crop and livestock farming systems. Improved forage production could be a critical technology for the development of sustainable upland agriculture, offering opportunity for hillside stabilization, soil enrichment and improved livestock nutrition and health. The Project, in partnership with CIAT, proposes to pilot a forage development programme, initially based on the buyback of seed of varieties that successfully integrate into upland farming systems. This approach will provide a cash income for participating farmers, while building both their acquaintance with improved forages and their role in increased livestock productivity, and a seed resource to rapidly expand successful varieties.

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

Key Responsibilities and Duties of the Forage and Seed Production Advisor

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

(a) Advise the DAEC on the logical and effective implementation of activities under Outcome 3, Activity 3 Building local capacities for climate-adapted forage seed and cutting supply, as well as on livestock husbandry and nutrition related to Output 4, activity 2, sub activity (ii), productive farmer's organizations, and Output 5, Linking farmers to markets;
(b) Identify, nationally and internationally, available climate-adapted forage varieties with potential for integration into smallholder farm cropping and livestock systems in Lao PDR uplands, including varieties suitable for grazing land reinforcement;
(c) identify and support implementation of opportunities for improved grazing land management by smallholder farmers, both individually and through group action, and propose investments for their realization;
(d) propose and support implementation of climate-adapted strategies for smallholder farmer and farmer group conservation and storage of fodder;
(e) identify and support implementation of climate-adapted strategies for smallholder farmer-based forage seed and vegetative material production to jump-start Programme forage interventions, including a view to the future commercialization of such strategies;
(f) assist the MAF-DAEC to prepare a forage manual for use by technical support staff and farmers;
(g) Identify the capacity building needs of different implementers and advise on how these needs can be addressed to ensure their effectiveness in terms of Programme outcomes;
(h) Support the NPCO in developing appropriate strategies to inform potential partners of available Programme support under Outcome 2;

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

Qualifications for the Forage and Seed Production Advisor

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

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

Minimum Qualifications

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

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	MSc or higher qualification	10
2	Length and variety of practical experience in sustainable forage and forage seed production at smallholder and commercial levels	20
3	Depth of familiarity with the respective core knowledge with respect to: • Sustainable forage production by smallholder farmers; • Sustainable production and distribution of forage seed and vegetative planting material; • Practical experience in animal husbandry and nutrition; • Participatory development of forage and seed production programmes in developing countries	 20 20 10 10
4	Experience with project management, in particular those funded by International Finance Institutions	10
	TOTAL	**100**

D. Contract Farming Advisor

Job Title:	Contract Farming Advisor
No. of positions:	1
Duration:	3 person months (total) over 3 years
Recruitment:	International
Reports to:	Project Coordinator on operational matters and Director MAF-DAEC on technical matters

Purpose

1. The SSFSNP aims to contribute to reduced extreme poverty and malnutrition in Lao PDR through the improvement of food security and nutritional outcomes for poor rural communities'. This will be, in part, achieved through the development of sustainable, climate adapted, nutrition-rich upland crop and livestock farming systems. Contract farming has become an important financier to upland farming in northern Lao PDR, supporting a shift from *swidden* farming to more permanent hillside farming systems. Contract farming, however, currently lacks sustainable agronomic practices, tends to focus on a few crops and is not seen as an equitable contractual relationship by many smallholder farmers. The SSFSNP seeks to work with GoL to develop contract farming systems that are bot equitable and sustainable

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

Key Responsibilities and Duties of the Contract Farming Advisor

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

(a) Review and report on the legislative and regulatory framework for contract farming in Lao PDR and prepare recommendations for legislative reform with a view to bringing Lao PDR legislation in line with global best practice;

(b) Evaluate the application of contract farming in the field in Lao PDR including contract types, contract negotiations and their practical application at smallholder level and identify gaps between the legislative framework and its implementation at smallholder level;

(c) Examine and report on the distribution of benefits between investors and farmers for a select range of Lao PDR contractually farmed commodities: e.g. coffee, cardamom, maize and soybean;

(d) Examine and report on the legal framework for farmer's associations and cooperatives in Lao PDR and explore the role of farmers' organizations, civil society and NGOs in supporting contract farming agreements;

(e) Examine and report on the role of "third parties" to provide services and support to contract farming systems, to improve communication and provide an outlet for relieving tensions or misunderstandings and to benefit from long-term stable and mutually advantageous contracts;

(f) Review contract farming agreements that support farmers' integration into vertical structured agribusinesses with a view to establishing long-term stable relations and determine the opportunity for developing such investor-farmer relationships in Lao PDR.

Qualifications for the Contract Farming Advisor

4. Formal academic qualification in agriculture, economics or business management with at least 10 years at a senior level in contract farming management in a developing country, including in Asia. S/he should have extensive exposure to participatory processes at smallholder level and in the legislation/regulation of contract farming at country level. Experience with FDI in contract farming systems will be an advantage.

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

Minimum Qualifications

- MSc in agriculture, economic or business management or similar discipline;
- At least 10 years of practical experience in contract farming management, of which at least 5 years working and living in developing countries;
- Good understanding of agriculture systems and agricultural producer groups in developing countries and Asia and Lao PDR in particular as well as extensive exposure to innovations;
- Excellent knowledge of innovations in contract farming worldwide.

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	MSc or higher qualification	10
2	Length and variety of practical experience in contract farming at smallholder and commercial levels	20
3	Depth of familiarity with the respective core knowledge with respect to: • Legislative frameworks for contract farming; • The practical application of contract farming in developing countries; • Practical experience in agriculture production; • Experience with agricultural producer groups	 20 20 10 10
4	Experience with project management, in particular those funded by International Finance Institutions	10
	TOTAL	**100**

E. Specifications for a Results-based Participatory Planning Service Provider Contract

1. The Government of Lao PDR seeks the services of one or more Service Providers (SPs) to assist the MAF to implement a village-based, bottom-up, community-driven planning and development programme with the purpose of identifying villager priorities for investment in primarily community-implemented investments to improve village food security and nutrition, in line with the four agricultural activities within the 22 priority interventions under the NNSPA. These include: (i) expanding and intensifying the production of nutritionally-rich plant-based foods; (ii) production and promotion of animal based protein for household consumption; (iii) improved post-harvest handling and food processing to strengthen year-round food security; and (iv) promotion of income generating activities.

2. **The programme** will be implemented in about 400 villages located in 12 districts across Houanpan, Oudomxai, Phongsaly and Xieng Khouang provinces over a period of 6 years, commencing in 2016. The Project will not work in villages which have been resettled in the last four years and/or which will be resettled in the next four years

3. The successful SP(s) will be recruited under a results-based contract that requires the SP to plan and initiate a community-driven participatory planning and investment programme with a view to transferring the planning capacity and responsibility to the local district administration in a period of 4 years or less. Once responsibility is transferred to the relevant district administration, the SP will be retained to oversee and mentor the district in its implementation of the Project-established community-driven planning and subsequent investment process.

4. **Underlying principles** of the community-driven planning process will include:

- Document free, prior and informed consent of the ethnic groups' communities in joining the project;
- building ethnic communities' identification with their values, rich heritage, resources and traditional knowledge;
- recognizing, strengthening and building off existing village/farmer organizations;
- ensuring the engagement of women, ethnic groups, poor households, youth and other common interest groups at village /hamlet levels in investment planning, implementation, monitoring and maintenance by facilitating self-help groups and collective work;
- engaging communities in household poverty ranking, targeting and benefit monitoring;
- disclosing and displaying community profile, social maps and poverty ranking at village level and on the project website for referencing when needed;
- ensuring adequate access by villagers to information on possibilities for pro-poor livelihood-supporting infrastructure and nutrition and agriculture investments;
- at district level, linking resulting village and kum-ban development plans to other sources of funding, particularly convergence funding for improved nutrition;
- establishing systems for investment sub- project appraisal and monitoring for milestone achievement, quality and sustainability;
- Establishing objective community performance criteria under which communities that fail to meet minimum performance criteria can have their sub-projects cancelled on the basis of a decision of the Provincial Project Steering Committee, leaving the opportunity to reward best performing villages through additional funding.

5. **The bottom-up, community-driven planning process** will have the following characteristics:

- No members of the community can be excluded from participation in PRF activities regardless of gender or ethnicity, disability or age. Special efforts will be made to reach out to the most vulnerable groups of the community (including single headed households,

ethnic groups, households with disabled people, landless households, and adolescents). Proactive measures, including affirmative action mechanisms, are taken to overcome linguistic obstacles, gender disparities and any other socio-cultural barriers. Ethnic minorities, vulnerable groups, disabled, and women are especially encouraged to join in PRF meetings and activities;

- A good facilitator listens and strives to understand behaviors, identifies bad and good practices among the beneficiaries, extracts good knowledge from the community, creates a shared understanding of what the harmful practices are and why, as well as the ways to change them
- At least 40% of all adults in the village (both men and women) must attend the initial village-level information meeting in order for the planning process to proceed;
- Decision-making must involve the entire community. All community members, including the traditionally marginalized groups, have the right to suggest how grants should be used and to voice their opinions when expressed needs are prioritized and sub-project activities specified. Where necessary, separate meetings will be held with women and other marginalised groups to elicit their food security and nutrition investment priorities;
- All meetings are public. Community members must be satisfied that the funds are used properly and they have the right to question any aspect of sub-project planning or implementation either during routine meetings or via an established community feedback resolution mechanism. All such feedback must be taken seriously and investigated by district/SP staff. At the same time, elected village and kum ban representatives have the responsibility to provide a full and clear account of the use of sub-project funds;
- Communities prioritize their own proposals, in line with the four NNSPA agriculture interventions and related training activities as well as financial resources made available via the VDF grant mechanism. The SP, in coordination with local government agencies, will provide villagers with the information required to make informed choices;
- At least 60% of sub-projects selected at village level must be a priority for women in that village, while at least 2/3rd of sub-projects prioritized at kum ban level must be in the poorest villages in the kum ban;
- To ensure that communities view Project activities as a self-help development activity, communities must be willing to contribute to sub-projects to show their support and ownership of the activity. Villagers can decide how they want to make their in-kind contribution. Detailed operations and maintenance plans must also be included in proposals, and villagers must be willing and able to operate and maintain any infrastructure that will be built. Operations and maintenance teams must be established before funds are disbursed;
- Wherever possible, procurement should be through community force account procedures. This could include community employment of skilled labour/construction project management to guide community labour.

6. **The community-based participatory planning process** will be defined in a project Implementation Manual and will be preceded by a rural institutional assessment and mapping, conducted by the Service Provider. In summary, the following methodology will be adopted. The VDP will be developed during a series of village assembly meetings led by an elected and trained Village Implementation Team (VIT) with at least 50% female and 40% village-identified poor household participation in all planning meetings. Approved VDPs will be brought to kum ban level where they will be aggregated, assessed for their effectiveness, feasibility and cohesiveness and prioritised by a committee comprised of VIT representatives nominated by their communities, leading to the preparation of a Kum ban Development Plan (KDP). VIT representatives engaged in the kum ban planning process will elect a Kum ban Management Team (KMT), which will, in turn, elect members of

committees responsible for KDP procurement, finance and audit. Where operational VIT and KMT or their equivalents already exist, they will be used by the SSFNSP in order to avoid the duplication of local structures. Consolidated KDPs will be forwarded to district administrations where the existing district socio-economic development planning committee, will, in consultation with KMT representatives, appraise KDPs and provide their no objection to their implementation based on their consistency with the district socio-economic development and nutrition convergence and investment plans. The PAFO head, who will be the SSFSNP Provincial focal point, will participate in the District decision meeting. KDPs will not be subject to change at district level without KMT agreement. Following District Governor approval, KDPs will be financed on a cost sharing basis by a dedicated Project grants to the district Project account and funding for those elements of the KDP to be implemented by VITs will be forwarded, within 5 days, to KDP accounts to finance community force-account procurement for those elements of the VDP implemented at village level. Villages will "graduate" from Project investment support after three – or in exceptional cases – after four years.

7. **Service Provider Experience**. The successful SP, which could be a local or international NGO, private company, independently-financed state entity or any partnership between such organizations, will have at least 4 years' experience in successful community-based participatory planning in Lao PDR, and wider regional experience, including experience in the establishment of productive, sustainable farmer organizations and/or businesses. A background in agriculture and forest land use planning and community-based forest management will be essential, as will a proven track record in farmer capacity building and farmer-to-farmer and enterprise-to-farmer technology transfer. Experience in the implementation of the Gender Action Learning System will be desirable. SP staff will require experience in a range of cross-cutting issues including gender and development, participatory monitoring and evaluation, climate change and climate-smart agriculture technology and community force-account construction. The SP will be registered to provide services in the Project provinces.

8. Pre-qualified SPs will be invited to submit proposals for the implementation of the SSFSNP community-driven planning programme based on the Project document and its associated Project Implementation Manual.

Proposed Evaluation Criteria

No.	Criterion	Maximum score
1	Level of experience in community based participatory planning in Lao PDR	20
2	Practical experience with regard to government-led agriculture and rural development investment project implementation in South-east Asia	10
3	Depth of experience with: • Participatory land and forest use planning • Community-led productive farmer group and business development • Nutrition behaviour change communication; • Nutrition-sensitive agriculture development • Farmer-to-farmer and enterprise-to-farmer technology transfer	 10 10 10 10 10
4	Capacity building, curriculum and IEC development	10
5	Experience with International Finance Institution financed development projects	10
	TOTAL	**100**

Annex 2: Negative List

- Construction of new roads on fresh alignments to standard within the current roads classification of the Ministry of Public Works and Transport. Note: Upgrading or spot improving existing tracks or trails to a motorable standard is **not** excluded, provided it complies with Project budgetary, sustainability, socio-economic and environmental criteria.
- Dam;
- Community Hall;
- Chain saws, pesticides; insecticides; herbicides; asbestos; or other investments detrimental to the environment;
- Individual livelihood activities, including grants, credit, loans, equipment and inputs for household investment;
- Piped, individual household water hook-ups;
- Equipment or materials that benefit single households;
- Construction of any buildings or offices that will be primarily used by government;
- Payments of salaries to government servants or the salaries of the staff of government subsidized organizations;
- New settlements or expansion of existing settlements in critical habitats, protected areas or areas proposed for protection; Note: Where settlements already exist, proposals for funding should be in compliance with any local regulations on land management and other provisions of the protected area management plan;
- Sub-project or activities that involve or lead to child abuse child labour exploitation or human trafficking
- Road construction or rehabilitation of any kind inside critical habitats and existing or proposed protected areas;
- Buildings or facilities used primarily for religious purposes;
- Acquisition of land and involuntary resettlement; and
- Imposition of ideas and/or changing of priorities identified by the community and endorsed at the kum ban level meeting without community consultation, prior review and clearance from the VIT.

Annex 3: Suitability of forages for different uses

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

Table 1: Suitability of forages for different uses

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

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

Table 2: Recommended forages for different climates and soils

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

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

Special considerations

1. In addition to the information presented in Tables 1 and 2, there are particular situations which require special consideration when selecting forages to offer farmers:

2. Forages for sheep, goats and young cattle: Warning -- do not feed Brachiaria brizantha, Brachiaria decumbens, Brachiaria mutica or Brachiaria ruziziensis to sheep, goats and young cattle. If fed large amounts, these animals can suffer from photosensitization which often results in death. Brachiaria humidicola can be fed to sheep, goats and young cattle but only in small quantities.

3. Forages for monogastric animals Warning -- Some species can be toxic to monogastric animals when fed in large amounts. Setaria sphacelata can be toxic for horses, since it contains oxalates. Leucaena leucocephala can be toxic to monogastric animals, since it contains the chemical compound mimosine. It is generally recommended that the diet of monogastric animals should contain no more than 10% of L. leucocephala. However, it can be fed in large amounts to ruminants (eg. cattle and goats) since they are able to break down mimosine in the rumen.

4. Forages for shaded areas Most forage species will grow as well in lightly shaded areas (such as under old coconuts) as they do in open areas. Species which are often used for grazed plots in light to moderate shade are *Brachiaria humidicola, Stenotaphrum secundatum* and *Arachis pintoi*.

5. Farmers occasionally ask for forages to grow in heavily shaded areas. There are no species that will grow well in such situations, but some species are better adapted to surviving in moderate shade. Arachis pintoi, for example, can be used to cover the ground and suppress weeds in shaded areas, but they will not produce high yields. Other species that can survive in moderate shade are *Centrosema pubescens, Centrosema macrocarpum, Paspalum atratum, Panicum maximum, Setaria sphacelata, Brachiaria brizantha, B. decumbens, B. humidicola and Stenotaphrum secundatum*.

6. Forages for areas with a long dry season Forages need water to grow, keep cool, and to take up nutrients from the soil. While there are no miracle forages that are productive throughout a long dry season, some species are better adapted to dry environments than others (see Table 2). Some tree and shrub legumes, such as Leucaena leucocephala, have root systems that can reach moisture deep in the soil. This allows them to grow and retain their leaves longer into the dry season than other forages. Some grasses and herbaceous legumes, such as Andropogon gayanus and *Stylosanthes hamata*, are also able to maintain green leaf long into the dry season.

7. Forages for acid, infertile soils. All forages grow well on fertile or moderately fertile soils. Some forages, such as Pennisetum purpureum and hybrids, will only grow well on fertile soils.

8. Many of the forages recommended in this booklet will grow on infertile soils and some (such as *Brachiaria humidicola and Stylosanthes guianensis*) will grow even on very acid, infertile soils (see Table 2). However, no species will produce high yields on infertile soils unless manure or fertiliser is applied. On extremely infertile soils, forages may not contain enough nutrients for good animal growth.

9. **Forages for very alkaline soils.** Most forage species can grow in alkaline soils. Some are particularly suited to high-pH soils. These are *Leucaena leucocephala*, *Desmanthus virgatus* and *Brachiaria humidicola*. One species which does not grow well on very alkaline soils is *Stylosanthes guianensis*.

10. **Forages for waterlogged soils** Most forages will tolerate a few days of waterlogging but few can grow well in soils which are waterlogged for extended periods. Some forage species that can tolerate waterlogging better than others are *Brachiaria mutica*, *Paspalum atratum, Setaria sphacelata, Brachiaria humidicola, Macroptilium gracile and Codariocalyx gyroides*.

11. **Forages for areas that are burnt regularly.** Most forage grasses will tolerate burning as their growing points are close to the ground (eg. *Brachiaria* species). Most forage legumes have all their growing points high above ground and are easily killed by fire (eg. *Stylosanthes guianensis, Centrosema pubescens*). However, these legumes often regenerate from seed after fire. One legume which can survive even severe fires is *Leucaena leucocephala*.

Annex 4. TEMPLATE FOR PREPARATION OF VALUE CHAIN STRATEGIC INVESTMENT PLAN (SIP)

Step One: Data Collection

1. The value chain analysis team first conducts background research on the chosen commodity/crop by reviewing websites and other secondary sources of information. During this phase, the team looks or information such as:

- Importance of commodity/crop to Lao PDR's economy (percentage of GDP, employment in the sector, etc.)
- Local, and global end markets for commodity/crop (demand, trends, potential expansion)
- The Project province's position within the Lao PDR and global commodity/crop market
- Average size (Ha) of commodity/crop per HH in the Project provinces
- Climatic conditions in the Project provinces for commodity/crop production
- Trade data of import and exports on the commodity/crop in the Project provinces and Lao PDR at large.

2. After a thorough review of relevant secondary sources, the team conducts primary research in the Project provinces through a combination of one or more of the following methods: interviews, focus groups, surveys and observation. Through this process which takes approximately 2 weeks in the field, the team gather more information on the value chain including the actors (HH-farms, SMEs – processors, input suppliers, advisors etc.), relationships between the actors of the chain and factors affecting the competitiveness of the chain.

Step Two: Value Chain Mapping

3. By using the information gathered during interviews as well as secondary research, the value chain analysis team develops the map of the commodity/crop sector in the Project provinces. Value chain mapping enables the analysis team to visualize the flow of the product from conception to end consumer through various actors, as well as the supporting markets and enabling environment affecting the value chain. The first step is to list all the functions and actors in the value chain.

4. Who are *the actors in the* commodity/crop *value chain?*

- Input suppliers (companies who sell to, farmers' associations and to household - farmers)
- Producers (household - smallholder farmers and Poor household-farmers)
- Small-scale traders
- Small-scale processors –local sale
- Medium/large-scale processors-exporter sale

5. Functions may be performed by more than one actor, and each actor may perform more than one function. *What are the functions in the* commodity/crop *value chain?*

- Input supply
- Production
- Trading
- Processing
- Exporting
- Importing

6. Once they are identified, the functions and actors are placed in a matrix to show who does what. List the functions *along* the side and the actors across the top and mark the boxes to indicate which actors perform which functions. Once this table is complete, a map can be drawn showing how the product moves from one actor to another and when it passes through the different functions.

Based on the map it is possible to establish the cost and margin make-up for each level the produce passes through used as the base line for present distribution of cost and benefits among actors.

Step Three: Analysis of Opportunities and Constraints

7. The next step is to prepare a table like shown below, list the structural and dynamic factors in the value chain, and then briefly describe the current situation, opportunities, constraints and recommendations for addressing the constraints including tangible How, Who and Financing.

Framework	Situational analysis	Opportunities for Upgrading	Constraints to Upgrading	Recommendation for Upgrading Constraints (How, who and financing)
Structural Elements of the Value Chain				
End market				
Business enabling environment (both soft and hardware)				
Vertical linkages				
Horizontal linkage				
Supporting markets				
Dynamic of the Value Chain				
Value chain Governance				
Inter-firm Relationship				

Step Four: Prepare Brief Sample Business Models for Each Recommended Upgrading showing the expected Results of the Upgrading

8. This step included technical description of the upgrading, financial analysis, economic analysis listing all the incremental estimated forecasts e.g. increased HH income, number of HH benefiting; job creation; increased export; import substitution, etc.

9. This step should also include the preparation of a matrix showing the current cost and benefit make-up and profit distribution along the value chain and an evaluation of change in governance after upgrading.

Step Five: Stakeholders Workshop

10. The stakeholder workshop brings together key actors from various levels in the value chain to vet the findings of the analysis and discuss if the chosen strategy for increasing value chain competitiveness is valid.

NOTE: The SIP should be as precise and concise as possible max 15 pages

Appendix 5: Institutional aspects and implementation arrangements

Background

1. **Ministry of Agriculture and Forestry.** The main role of the MAF is to manage the development of agriculture and forestry for food and nutrition security and for the production of commodities for processing industries[84], 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. **Ministry of Health.** The main role of the MoH is to ensure that the SSFSNP will be aligned with the implementation of the NNSPA. For this, MoH will partner closely with the MAF, in particular for the 4 agricultural priority nutrition interventions. At operational level, MoH will be responsible for capacity building of Provincial and District staff from various sectors as well as of other service providers, and for the monitoring of the SBCC and FNS programmes. MoH will also be tasked to provide regular technical backstopping (e.g. by assigning senior Provincial staff from PHO to visit target villages regularly) as well as to lead the coordination for the SBCC. In this regard, MoH will commit itself to support SSFSNP by the assignment of senior staff to complete aforementioned tasks. The persons assigned to work on SSFSNP will be required to regularly report to the NNC and to ensure that the SSFSNP is a learning platform for the national nutrition dialogue.

3. **Provinces.** Provincial authorities are responsible for providing strategic guidance to and ensuring monitoring and coordination of the district level. The Provincial Department of Planning and Investment is in charge of coordinating public investment programmes, in line with the decisions of the Provincial Socio-Economic Development Coordination Committee (PSEDCC) chaired by the Vice-Governor and composed of the heads of all line agencies and district governors. Provincial Agriculture and Forestry Offices (PAFOs) are responsible for providing overall guidance and support to DAFOs, disseminating technical information, promoting innovation and organising input delivery.

4. **Districts.** Districts are the planning and budgeting units for district-level SEDPs and have a District Socio-Economic Development Coordination Committee (or equivalent institutional arrangement) that mirrors PSEDCC at provincial level. The Committee provides policy guidance to line departments and coordinates the implementation of all development programmes in the district. *District Agriculture and Forestry Offices* (DAFOs) are responsible for implementing agriculture policies and strategies and for delivering extension services to farmers. They also coordinate Technical Service Centres (TSCs), which exist in some of the *kum ban.* The main potential constraints faced by DAFOs in relation to SSFSNP 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. The *District Industry and Commerce Departments* (DIC) are responsible for promoting market linkages in the agriculture sector. They work jointly with DAFOs, for example on concessions and contract farming, but they similarly have limited skills to deal with farmers' organisations and have no field staff. *District Offices for Natural Resource and Environment (DONRE)* are in charge of most of the land management activities, including land use planning. Similar to DAFOs, they have limited staff, transport equipment and budget, and are also little conversant with participatory approaches. *District Departments of Health* (DOH) are in charge with nutrition as well as hygiene and clean water

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

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

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

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

Overall Organisation and Responsibilities

7. **Rationale.** SSFSNP 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 DAEC, 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.

8. The **Ministry of Agriculture and Forestry**, through its Department of Planning and Cooperation (DPC), is the SSFSNP lead agency that has overall responsibility for Project implementation, which it delegates to the Project Coordinator and, through that office, to the DAEC for technical matters and to district administrations (with provincial oversight) for Project implementation.

9. The PC will head a National Project Coordination Office (NPCO), supported technically by a DAEC Technical Support Team. A multi-sectoral Technical Advisory Group (TAG) will provide technical oversight. The NPCO/DAEC staffing mix is detailed in Table 1 below, while the full project structure is shown in Appendix 5, Annex 6. The ToRs for the NPCO are detailed in Appendix 5, Annex 2.

Table 1: NPCO and DAEC Technical Support Team Staffing

NPCO	DAEC Technical Support Team
• **Project Director (Nat.)**	• **Technical Team Coordinator (Nat.)**
• **Finance & Admin. Manager (Nat.)**	• **Chief Technical Adviser (Int.)**
• **Assistant Financial Officer**	• **Nutrition coordinator (Nat.)**
• **Procurement Manager (Nat.)**	• **Gender specialist (Nat.)**
• **Knowledge Management Manager (Nat.)**	• **Agribusiness Development Adviser (Nat.)**
• **Monitoring & Evaluation Manager (Nat.)**	• **Cropping Technical Coordinator (Nat.)**
• **Administrative staff (2)**	• **Livestock Technical Coordinator (Nat.)**
• **Driver (2)**	• **Farmer Group Coordinator (Nat.)**
• **Financed by the SSFSNP**	• **Accountant**
•	

10. The NPCO will establish an independent **Multi-sectoral Technical Advisory Group** (TAG) to support Project implementation. The TAG will include representatives of key MAF and MoH departments, interested donor partners and farmer and civil society organizations, and private sector stakeholders, particularly representing the private agribusiness sector. At least 30% of its members will come from the private sector. The TAG will meet on half yearly to provide technical guidance to Project implementation. Specifically, the TAG will: (i) review the six-monthly NPCO Project progress report prior to its submission to the NPSC and provide technical comment on the report for the consideration of the NPSC; (ii) review the Project annual work program and budget prior to its submission to IFAD and provide technical comment on its content for consideration of the NPCO and NPSC; (iii) provide technical support to national and international Project technical advisors including

reviewing their reports on behalf of the NPCO; (iv) mentor the NPCO and MAF on nutrition and private sector development issues; and (v) Interact with SSFSNP Supervision teams on technical and private sector issues.

11. **District Agriculture and Forestry Offices** will serve as a focal point for the planning and monitoring of SSFSNP activities at district level. Under the SSFSNP, each DAFO will coordinate and consolidate planning and budgets for the preparation of AWPBs, manage SSFSNP accounts for expenditure carried out at district level, and prepare semester and annual progress reports and financial statements. The DAEC/TSC system will provide technical advice to Project farmers. To achieve this outcome, the DAFO will assign the following existing staff: (i) a DAFO planning officer as district coordinator; (ii) a DAEC officer for extension coordination; and (iii) two DAFO technical staff; and at least 18 person months' time of the staff of each supporting TSCs. The Project will finance a district level accountant to manage Project finance. AWPBs, semester and annual progress reports will be validated by the District Socio-Economic Development Coordination Committee, or its local equivalent. Line agencies at district level will participate in the implementation of SSFSNP activities under their respective responsibilities, through district teams that will gather staff from DAFO, DPI, DoIC, LWU, DoH, DoES, DPWT and others. District teams will reflect gender balance, and a special effort will be made to select people who have command of ethnic languages.

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

13. **Kum ban Pattana** Village Development Clusters will be the focal point for coordinating participatory village level development/investment planning with a view to taking a more holistic approach to agriculture development and market access by the scattered upland villages of Lao PDR.

14. **IFAD and WFP**. The SSFSNP is financed through a GAFSP grant. Under the prevailing conditions for GAFSP grant implementation, IFAD will be the investment SE and WFP will be the TA SE for the Project. Both agencies will implement their responsibilities under the project applying their respective rules and regulations.

15. **UN-HABITAT** will be responsible for the implementation of activities relating to infrastructure development that cannot be managed through CFA or by local companies. It will work in close collaboration with DAFOs, 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.

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

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

18. **District Project Steering Committee**. the District Socio Economic Development Coordination Committee (DSEDCC) shall act as the DPSC.

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

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

21. **Participatory planning.** Initially, targeted communities will be involved in conducting participatory rural appraisals (PRAs). The purpose of the PRA will be to ensure that Programme priorities and activities are based on an in-depth understanding of the community and the environment, and will require about 2-3 days for each community. Every effort must be taken to inform villagers in advance of the date(s), time and location of the PRA process and to encourage their attendance. This will be accomplished mainly via word-of-mouth announcements by village heads, deputy heads and representatives from Mass-Based Organizations (MBOs), but may also include use of public notice boards and announcements at schools and temples. **A minimum of 40% of adult men and 40% of adult women (over the age of 14) must attend, or the meeting will be postponed and rescheduled for a later date.**

22. Following the completion of the PRA, villagers, with CF support, will prepare multi-year *Village Development Plansv(VDPs*) through the steps and using the tools described below (and further detailed in Appendix 5, Annex 4). This will be carried out through a 2- 3-day workshop involving community representatives with at a least 50% representation of women. The workshops will involve the following steps, the outputs of which will be the VDP:

- Agreeing on the overall vision for the community (*visioning*)
- An analysis of problems and opportunities using tools such as *conceptual modelling*;
- Prioritizing areas for intervention using tools such as *matrix ranking*;
- The development of *impact-output chains*, clearly illustrating the cause-effect relationships and underlying assumptions; and

23. ***Developing action plans.*** Methods for both PRAs and strategic action planning will need to allow for the participation of both literate and illiterate members of the community. As significant number of individuals within the communities are illiterate, it will be important to utilize visual tools (e.g. pictures and symbols). Furthermore, enabling the expression of different perspectives likely to exist between men and women will also be important. It is therefore recommended that VDPs will be developed in separate groups of men, women and youth; which will then be discussed collectively and combined into one whole for the community.

24. Annual work plans resulting from the VDP process will then feed into and inform the SSFSNP AWPB, as well as the District Rural Development Plans (RDPs). Representatives of all stakeholders will be involved, to the extent that is feasible, in all stages of the planning processes (from the identification of information needs, to data collection, analysis and decision making processes). Once the village level VDPs have been developed, the information required by the community to monitor progress, and to learn from and make decisions on their own strategic action plans will be defined with the support of multi-sector District Tasks Forces and the SSFSNP staff. This information will relate to all levels – from impact to inputs.

25. At the village level, all sub-committees will identify one or two individuals (preferably one male and one female) to be responsible for collecting data and information at output and activity level on a regular basis using simple pre-designed forms. As with the strategic planning process, data and information will be collected using tools that allow for the participation of all members, particularly at outcome and impact levels. This could involve the use of pictures, symbols, focus group discussions etc.

26. VDPs will be evaluated, prioritised and aggregated at kum ban level in a meeting of village delegates. Each village will elect a number of delegates who will serve as their representatives in kum ban meetings, particularly at the **Kum ban Development Plan** (KDP) meeting which will develop and prioritize sub-project proposals. They will also be key participants in Village Report Back meetings. It is crucial, therefore that villagers nominate persons known to be honest, hard-working, trusted and respected by the community. They should also be confident to speak in public in order to best represent the interests of the village. Open elections, conducted by a paper vote, open hand voting or any other means, will take place at the end of the VDP process. In most villages, a total of 6 Village Delegates should be elected. At least 50% of the Village Delegates must be women. In villages with significant presence of different ethnic groups, a corresponding percentage of Village Delegates must be from those ethnic groups. (Note: In large kum bans with more than 10 villages, only 5 Village Delegates should be elected from each village, at least two of whom must be women).

27. During these planning meetings, democratically elected representatives from each village in the kum ban are responsible for developing the KDP. The KDP spans a period of three years and will be the KDP is the main planning instrument for SSFSNP Output 2 to 4. The KDP will describe the community's long-term vision for development of their kum ban. The KDP will also propose and prioritize a series of sub-projects that are intended to reduce local poverty. Pending technical feasibility surveys, these sub-projects will be implemented over the duration of the KDP (i.e. the top priority sub-projects in the first year, in accordance with the available budget, then remaining sub-projects over each of the next two years).

28. Annually, Service Providers will coordinate end-of-year VDP stakeholder reflection and planning meetings. The workshops will involve representatives of stakeholder groups including communities, local and provincial authorities as well as other development initiatives in the Programme area. The objectives of these meetings will be to (i) provide a platform for communities to discuss and share information related to the progress, lessons & experiences in implementing their VDPs; (ii) identify and agree on ways of addressing any problems that may arise during the period; (iii) contribute to developing the capacity of district teams to support community driven rural development, include planning for the subsequent year; and (iv) provide a platform to strengthen coordination and linkages with national polices and processes and other ongoing development initiatives.

Annex 1 - Terms of Reference: National Project Steering Committee

Programme Steering Committee

1. Mandate**:** The Secretariat of the National Nutrition Committee shall act as the National Project Steering Committee (NPSC). The NPSC is established to ensure overall execution of the Project and effective coordination/cooperation among and coherent inclusion of the government agencies, development partners, mass organizations and the private sector. The PPC will serve as the decision maker for strategic management of the Project, such as appointment of the Project Coordinator and Field Programme Coordinator (Deputy PC) and approval of the Project Implementation Manual (PIM) and Annual Work Plan and Budget (AWPB) and other decisions related to the Project coordination, orientation and mobilization of resources.

2. Composition**:** The NPSC members shall include

Co-chairpersons of NPSC:	Vice-minister, Ministry of Agriculture and Forestry Vice-minister, Ministry of Health
Member/Secretary:	Project Coordinator,
Members:	
	Vice-minister, Ministry of Planning and Investment
	Vice-minister, Ministry of Finance
	Vice-minister, Ministry of Education and Sport
	Vice-minister, Ministry of Commerce and Industry
	Vice minister, Ministry of Public Works and Transport
	Vice-governors of participating provinces
	Director, MAF-DoPC
	Director, MAF DoA
	Director, MAF DAEC
	A representative of the Chamber of Commerce
	Vice-chairwoman, Lao Women's Union (observer)
	Chairperson, Lao Farmers Network (observer)

3. **Functions:** The main responsibilities of the NPSC, to be duly notified through a joint Decision by MAF and MoH will be:

a) Ensuring complementarity between the Project and other externally/internally financed projects/programmes and efficient use of Project funded financial and manpower resources;

b) Providing a supporting policy framework and guidelines for efficient Project implementation;

c) Soliciting/proposing new regulations and policies for GoL approval, where needed, to ensure implementation of the Project, especially in regard to the institutionalization of market-oriented sustainable, nutrient-rich upland agriculture and improvement of the enabling business environment for private sector engagement in agriculture and rural development, particularly through contract farming;

d) Reviewing and approving annual work plans/budgets for the Project;

e) Recruitment/appointment of the Project Coordinator and the Field Programme Coordinator (Deputy Project Coordinator) in accordance to their specified terms of reference;

f) Interfacing between PCO and GoL on matters of policy formulation, revision and implementation, with a view to ensure effective implementation of the Project;

g) Ensuring effective cooperation and coordination among the provincial and district agencies, and instilling a system of accountability for performance and proper use of resources at all levels;

h) Ensuring effective coordination and information sharing between SSFSNP and other Government's and donor-funded projects and programmes through annual review workshops and drawing upon and sharing of policy forums and communication facilities;

i) Conducting a results-based semester review meeting of the Project progress of the past semester and approving the work plan and budget for the coming semester, ensuring timely corrective action on management and implementation issues towards the Project objectives;

j) Ensuring timely provision of counterpart funds, in line with Project needs as defined by annual work plans.

4. **NPSC meetings:** The NPSC will meet on a semester basis to coordinate Project implementation, guide planning, review progress based on the information from the M&E, make recommendations for any modifications of AWPB as needed, and ensure cooperation among agencies and levels for the coming semester. The NPSC meetings will rotate between Vientiane and the participating provinces.

Annex 2 - Terms of Reference: National Project Coordination Office

National Project Coordination Office

1. The National Project Coordination Office (NPCO) is established to assist the NPSC in ensuring timely and effective coordination of Project implementing agencies and stakeholders. The mandate of the NPCO will be to ensure: (i) coherence of the Project approaches and strategies, and integration among Project outcomes and activities in order to produce the Project impacts, outcomes and outputs; (ii) coordination and synergy of the relevant government departments and other co-implementing agencies, development partners and technical service providers, and the province and district level agencies, and grassroots communities; (iii) mobilization of resources from the private sector, mass organizations, professional associations, research institutes, technical centres and non-government organizations; (iv) accountable management of IFAD and Government's resources, including preparation of a PIM, AWPB, procurement plan, selection of technical assistance and audit service providers, establishment and operation of a M&E system, and other functions of the operational and financial management of the Project and (v) knowledge sharing and policy development interventions.

2. The main tasks of the NPCO include:

a) **Annual planning and coordination**. Together with the main implementing agencies and Service Providers, the NPCO will draw up an AWPB that reflects both the previous year's achievements and performance and anticipated Project progress. It will consolidate the AWPB for submission to the NPSC and obtain prior IFAD comments. The NPCO will ensure coordination between other government agencies and externally financed programmes in the Project area

b) **Targeting and Gender**. In the planning and implementation of Project activities, the NPCO will ensure that the provincial and district agencies will maintain the focus on poor and near poor households, women-headed households and ethnic peoples and ensure that women have ample opportunities to participate in Project activities. NPCO will ensure gender is mainstreamed in all Project activities as detailed in the PIM, to be developed by the NPCO in the Project activation period

c) **Knowledge of Indigenous People (IP)** (including language and culture) The NPCO will ensure that project staff have sufficient knowledge of IP language and culture and ensure the provision of additional training where that understanding is insufficient.

d) **Capacity building**. A series of provincial and district-level training workshops will be held on, *inter alia*: household nutrition; community driven development; farmer groups and cooperative formation and management; farmer market integration; nutrient-rich agriculture, CBFM; using information and data; inclusive planning; and gender and ethnicity issues in planning. Bi-annual workshops will be held in each district with participation of kum ban representatives

e) **Monitoring and Evaluation**. The monitoring and evaluation unit in the NPCO will establish an appropriate M&E and MIS system and ensure implementation of IFAD RIMS procedures. Staff in the implementing agencies and members of beneficiary communities will be trained in the requirements for M&E.

f) **Financial management**. The GoL shall open and thereafter maintain an account denominated in US dollars for the purpose of financing the Programme, the "**Designated Account**". The DA will be operated by the Ministry of Finance (MoF). The NPCO will open and maintain in a commercial bank acceptable to IFAD an account denominated in LAK for Project operations, the "Project Account" (PA). The PA will be funded and replenished as necessary from the resources held in the DA, upon request of the PC and in accordance with expenditures incurred under approved annual work programme and budget (AWPB). The Project Coordinator shall be fully authorized to operate the relevant Project Account.

g) **Procurement**. The NPCO will carry out all procurement according to the Government and IFAD Procurement Guidelines. It may delegate procurement to implementing agencies and, for community infrastructure, to communes that follow the local regulations on decentralization of investment ownership

h) **Recruitment**. In collaboration with the relevant implementing agencies, the NPCO will develop appropriate Terms of References for staff positions to be assigned to the NPCO or the respective agencies and to be funded by the Project. It will organize a fair and transparent selection process and ensure IFAD concurrence for the candidates for the key positions

3. Apart from day-to-day Project management and coordination, the NPCO will organize: (i) baseline and corresponding impact surveys; (ii) regular monitoring activities and Project progress reporting; (iii) bi-annual workshops to involve all Project stakeholders in learning from the constant flow of management information, annual reporting exercise and recommending improvements; (iv) Project midterm review after 2.5 years of implementation; and (v) Project completion evaluation.

Annex 3 - Terms of Reference for Key Staff at NPCO

A. Project Coordinator

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

Purpose

1. The Project Coordinator (PC) will coordinate Project management and ensure that implementation is realised according to the conditions of the financing agreement and based on the Project appraisal report. S/he needs to ensure effective and timely implementation of the Project, with special attention to providing overall inter-agency coordination and facilitation at various levels. Under the direction and supervision of the NPSC, the PC coordinates the NPCO, provincial and district project staff and service providers to ensure that the strategic outcomes of the Project are achieved. Particularly, the PC leads the NPCO to ensure the M&E requirements described are developed and implemented in a timely manner that represents the views of key stakeholders. S/he is also responsible for making sure there are sufficient and appropriate personnel with the right level of resources and other support needed to implement the Project.

2. In particular, the PC will serve as leader of the Project coordination team in order to achieve the following responsibilities: (i) Project Implementation Coordination; (ii) Financial/Asset Management; (iii) Contract Management; (iv) Personnel Management (v) Government Liaison/External Relations; and (vi) Knowledge Management and Policy Development.

Organisational relationships

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

Responsibilities and Duties

Early implementation tasks:

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

Ongoing operational management tasks

(g) Prepare the AWPB and revise the M&E plan and system by seeking stakeholder inputs in order to produce these plans with the full commitment of all the organizations involved in the Project. Present the AWPB and M&E plan to the relevant approval bodies in a timely manner for review and approval;

(h) For each service provider contract, ensure that detailed specifications are prepared in a timely, objective, fair and transparent manner, including the M&E responsibilities and administration of terms and awards;

(i) Ensure the holistic implementation of the Project, ensuring the Project outcomes and levels are seamlessly joined in the pursuit of market-led poverty alleviation amongst poor, ethnic and women-headed households;

(j) Ensure that the MAF and provincial and district agencies maintain the focus on poor, ethnic and women-headed households, that women have ample opportunities to participate in Project activities, that gender is mainstreamed in all Project activities and that staff have adequate knowledge of IP language and culture;

(k) Make sure the business of the Project is conducted in an efficient manner by supervising and monitoring Project implementation. Ensure that timely decisions on corrective actions are made and implemented;

(l) Direct and supervise the day-to-day operations of the Project, guided by the Project document and the AWPB, providing any necessary amendments to ensure smooth performance;

(m) Mobilize relevant technical assistance in a timely manner, with clearly demarcated responsibilities that are based on the participatory and equity principles of the Project;

(n) Assure that all contractual obligations are adhered to and make the necessary contacts and efforts to ensure implementation meets Project targets;

(o) Regularly appraise staff and provide feedback and support to enable them to do their jobs.

Ongoing financial management tasks

(p) Ensure that Project expenses are kept, consistent with Government and IFAD administrative and financial procedures and practices;

(q) Ensure that Project suppliers and locally paid staff are paid promptly and adequately through liaison with Ministry of Finance and the IFAD Country Office finance staff;

(r) Ensure that Project expenditure is being coded correctly and consistently (that is allocated to correct category and budget line) and that Project funds are used solely for the purposes for which they were granted and in accordance with relevant IFAD guidelines;

(s) Establish an asset register for all assets purchased by or provided to the Project in line with standard IFAD policies;

(t) Check the monthly Project financial report for accuracy and appropriateness. Regularly meet with the Finance and Administration Manager concerning financial reporting issues, errors, trends, payment delays and related matters;

(u) Monitor expenditure on a monthly basis against the approved AWPB in order to prepare and send timely fund withdrawal applications to IFAD. Review expenditure projections to ensure that expenditure stays within budget. Significant actual or anticipated expenditure variances against the budget should be included in the monthly report to line management together with any recommendations for changes to the budget.

Communication

(v) Develop close working relationships with all Project participants and stakeholders – including the primary stakeholders, line departments, private sector and NGOs – all parties required to establish a shared vision of the Project to achieve objectives;

(w) Establish and maintain good working relations with the relevant government ministries, as well as other higher-level stakeholder groups;

(x) Ensure easy public access to M&E reports and data and make sure they are widely distributed;

(y) Submit required analytical reports on progress – including indications of planned actions and financial statements – on time and to the relevant bodies, with assistance from M&E staff;

(z) Encourage staff to report frankly on fieldwork, highlighting problems and possible solutions plus lessons learned. Reward innovation in critical reflection and learning;

(aa) Ensure the planning of and participate in key reflection moments – in particular, the annual Project reviews;

(bb) Sign implementation agreements with the implementing partners, defining the modalities for implementation and M&E. Ensure that participatory M&E and learning initiatives are specified in terms consistent with the direction of the Project;

(cc) Control the budget and safeguard against Project funds and assets misuse;

(dd) Make all efforts to engage key stakeholders in important external evaluations to ensure an understanding of locally perceived impacts and problems;

(ee) See that all ad hoc evaluation studies needed to gain timely and relevant insights into emerging areas of concern are undertaken. Make sure the resulting data is shared with all those involved in decision making and follow up on the implementation of any decisions;

(ff) Support external missions in ways that foster a joint learning process that identifies how the Project could be improved further to achieve impact.

(gg) Knowledge sharing and Policy interventions

(hh) Consolidate a culture of lessons learning involving all Project staff and allocate specific responsibilities of knowledge management to Project staff, implementing agencies and Project stakeholders;

(ii) Ensure that the Project captures and share lessons learned through the M&E system, supervision and evaluation missions and periodic visits to sites;

(jj) Document, package and disseminate lessons frequently and not less than once every three months;

(kk) Facilitate exchange of experiences by supporting and coordinating participation in knowledge sharing workshops, teleconferences, development of IFAD' Lao PDR website and any other existing knowledge sharing network of IFAD at the regional and country level;

(ll) Identify and participate in additional networks, for example scientific or policy-based networks that may also yield lessons that can benefit Project implementation.

Minimum Qualifications

Core Competencies

(a) People Skills: Ability to work independently and as a team player who demonstrates leadership and is able to support and train local and international staff. Proven ability and experience in working with ethnic minorities

(b) Communication Skills: Well developed written and oral communication skills. Able to communicate clearly and sensitively with internal and external stakeholders as a representative of an IFAD Project. This includes effective negotiation and representation skills;

(c) Integrity: Works with trustworthiness and integrity and has a clear commitment to poverty reduction of local communities;

(d) Resilience/Adaptability and flexibility: Ability to operate effectively under extreme circumstances including stress, high security risks and harsh living conditions. Works and lives with a flexible, adaptable and resilient manner;

(e) Awareness and sensitivity of self and others: Demonstrates awareness and sensitivity to gender and diversity. Has experience and the ability to live and work in diverse cultural contexts in a culturally appropriate manner;

(f) Work style: Is well organized even within a fluid working environment and has a capacity for initiative and decision making with competent analytical and problem solving skills;

(g) Readiness to work with people of all backgrounds without bias;

Technical Competencies

(h) MSc/MA degree in agriculture, economics or business administration;

(i) At least 10 years of professional experience in relevant fields

(j) Sound experience in working for IFAD Projects;

(k) Sound knowledge of upland agriculture production in Lao PDR;

(l) Ability to develop and foster external organizational relationships and applied representation skills;

(m) Knowledge of Government and IFAD policies and procedures on gender, environment, corruption and general Project finance and administration management;

(n) Knowledge of IP culture

(o) Have telecommunication skills and proficiency in information technology/ computer skills;

(p) Written and spoken English language skills essential.

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	Depth and relevance of educational background	10
2	Length, depth and relevance of professional and practical experience in livestock sector and rural development	35
3	Extent of expertise in the technical domains of the Project	20
4	Depth and length of management experience, in particular of donor-funded projects/programmes	20
5	Length and level of management positions held	10
6	Level of accounting, financial management and procurement experience	5
7	Depth of understanding of rural and agricultural development issues and experience with animal production and health management	5
8	Depth of experience in designing, delivering and evaluating training for adults	5
9	Strong writing, analytical and interpersonal skills	10
10	Depth of experience with result-management and PM&E	10
	• TOTAL	130

B. Finance and Administration Manager

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

Purpose

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

Key Responsibilities and Duties

(a) Finalize, within three months after start of duty, a draft manual on financial management and administration by the NPCO, partners and beneficiaries, which sets the minimum standards of compliance for the financial management and administration under SSFSNP financing;

(b) Installation of appropriate accounting/reporting systems to ensure that the NPCO and especially the PC are regularly informed of on-going financial activities and transactions.

(c) Establishing the financial and administrative policies, systems, formats and procedures, including those for service contracting, budgeting and accounts and audit.

(d) Ensuring that administrative and financing directives and guidelines of the NPSC are reflected in all Project activity.

(e) Assisting in facilitation and supervision of the tender, award and performance assessment procedures for service contracting.

(f) Communicate to all implementing partner institutions, service providers and grantee recipients their financial and administrative responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.

(g) Maintain all accounting and administrative records in a form appropriate for regular auditing (at least once a year).

(h) Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided;

(i) Ensure that counterpart funds have been provided and used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which they were provided;

(j) Ensure that all necessary supporting documents, records and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers;

(k) Ensure that designated accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures;

(l) Ensure that the financial statements are prepared in accordance with International Public Sector Accounting Standards as adopted in Lao PDR;

(m) Liaise with external auditors to audit the Project accounts to meet the required submission dates by IFAD;

(n) Oversee tax matters of the Project, ensuring that tax exemptions for the procurement of goods for the Project are secured at the appropriate time;

(o) Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds, and other supplies for Project implementation are disbursed or released in a timely manner to enable Project interventions to be carried out on time;

(p) Prepare and submit regular withdrawal applications to IFAD and follow up to ensure that the Project does not run short of liquidity;

(q) Follow up on all project funds released to implementing partners for timely retirement and proper utilization;

(r) Ensure that statements of expenditure (SOEs) are carefully compared for eligibility with relevant financial agreements and the disbursement handbook, and with budget control discipline;

(s) Ensure that fixed assets are well accounted for and annual verification is undertaken of the condition of assets and their location;

(t) Prepare informative management accounts in the form of monthly, quarterly, semi-annual and annual reports regarding aspects of Project financial monitoring bringing out variances as per approved AWPB and advising implementers as to the limits of expenditure;

(u) Act as a counter-signatory to Project fund releases as required for Project financial transactions and also sign as witness to contracts as much as possible;

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

Minimum Qualifications

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

Skills and Experience

(a) At least eight years of relevant work experience in financial management and administration, including at least four as a financial manager or accountant in government/donor projects or large institutions;

(b) Experience in funding budgets and contractual complements similar to those proposed under SSFSNP is desirable.

(c) Strong managerial skills and demonstrated capacity to manage people and interact with a wide range of private sector partners and government representatives;

(d) Knowledge of work planning, budgeting and reporting;

(e) Excellent quantitative and analytical skills;

(f) Computer-literate including accounting packages and well-versed in the use of Excel, Word and basic data base set-ups.

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	Depth and relevance of educational background - accounting background training at university level	20
2	Membership of the Institute of Chartered Accountants of Laos or equivalent	20
3	Depth and length of project financial management experience, in particular of donor-funded projects/programmes	30
4	Level of understanding of project accounting software	10
5	Strong writing, analytical and interpersonal skills	20
	TOTAL	**100**

C. Procurement and Contract Manager

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

Purpose

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

Key Responsibilities and Duties

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

Minimum Qualifications

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

Skills and Experience

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

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	Depth and relevance of educational background- procurements	20
2	Membership of an appropriate national institute	30
3	Depth and length of project/ public procurement management experience, in particular of donor-funded projects/programmes	30
4	Level of understanding of management of matching grants	10
5	Strong writing, analytical and interpersonal skills	10
	TOTAL	**100**

D. Planning and Monitoring and Evaluation Manager

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

Purpose

1. The Monitoring and Evaluation (M&E) system at the Project level has four objectives: (i) to monitor and evaluate results and impacts; (ii) to provide a basis for decision making on necessary amendments and improvements; (iii) to promote accountability for resource use; and (iv) to document, provide feedback on, and disseminate lessons learned.

2. Project monitoring and evaluation is conducted in accordance with established IFAD procedures and is undertaken by the Project coordination team at all levels. The Logical Framework matrix provides performance and impact indicators for Project implementation along with their corresponding means of verification. These, along with the objectives, procedures and tools described in the M&E plan presented in the Project final design report will form the basis on which the Project's M&E system will be built at the starting phase of the Project.

General scope of the job

3. The M&E Manager is responsible for guiding the overall M&E strategy and implementation of related activities within the Project and Vis a Vis partners, plus providing timely and relevant information to the PC, NPCO and Project stakeholders. This requires close coordination and communication with Project implementation agencies and other stakeholder groups, and field staff as well as consultants of external M&E-related missions.

4. Critical tasks for the M&E Manager include setting up the M&E system and ensuring it is implemented efficiently and effectively. The M&E system will be based on the Project log-frame and the Project M&E plan and will build as much as possible upon existing M&E mechanisms and systems among the Project stakeholders. The M&E officer will report directly to the Project Coordinator

Main Responsibilities and Duties

(a) Setting up the M&E system.
(b) Develop the overall framework for Project M&E in accordance to the Project document M&E plan;
(c) Conduct a readiness assessment regarding M&E on what are the incentives at the system level, who are the beneficiaries;
(d) Guide and coordinate the review of the Project log-frame;
(e) Provide technical advice for the revision of performance indicators;
(f) Ensure realistic intermediate and end-of-Project targets are defined;
(g) Conduct a baseline study (situation at Project start);
(h) Identify sources of data, collection methods, who collects data, how often, cost of collection and who analyses it;
(i) Ensure all critical risks are identified.
(j) Identify the core information needs of the NPCO, the NPSC, MAF, IFAD and the MoF;
(k) Identify the requirements for collecting baseline data, prepare terms-of-reference for and arrange the conduct of a baseline survey, as required;
(l) Clarify M&E responsibilities of different Project personnel;

(m) Contribute to the development of the Annual Work Plan and Budget (AWPB), ensuring alignment with Project strategy, agreement on annual targets and inclusion of M&E activities in the work plan;

(n) Prepare detailed annual M&E budgets;

(o) Prepare calendar of M&E activities;

(p) Identify needed Project M&E technical assistance and guide its recruitment.

Implementation of the M&E system

(a) Oversee and execute M&E activities included in the AWPB, with particular focus on results and impacts as well as in lesson learning;

(b) Based on the AWPB design the framework for the physical and process monitoring of Project activities;

(c) Promote a results-based approach to monitoring and evaluation, emphasizing results and impacts;

(d) Coordinate the preparation of all Project reports. Guide staff and executing partners in preparing their progress reports in accordance with approved reporting formats and ensure their timely submission. This includes quarterly progress reports, annual Project report, inception report, and ad-hoc technical reports;

(e) Prepare consolidated progress reports for Project management including identification of problems, causes of potential bottlenecks in Project implementation, and providing specific recommendations;

(f) Check that monitoring data are discussed in the appropriate forum (such as the review meetings of NPCO, the semester meeting of the NPSC) and in a timely fashion in terms of implications for future action. If necessary, create such discussion forums to fill any gaps;

(g) Undertake regular visits to the field to support implementation of M&E and to identify where consolidations might be needed;

(h) Foster participatory planning and monitoring by training and involving primary stakeholder groups in the M&E of activities;

(i) Prepare M&E reports for annual supervision missions, mid-term review and final evaluation in accordance to IFAD guidance;

(j) Facilitate, act as resource person, and join if required any external supervision and evaluation missions;

(k) Ensure that all project reports reflect a climate-adapted approach to agriculture production and household nutrition;

(l) Monitor the follow up of evaluation recommendations;

(m) Identify the need and draw up the TORs for specific Project studies. Recruit, guide and supervise consultants or organizations that are contracted to implement special surveys and studies required for evaluating Project outcomes and impacts;

(n) Organize (and provide) refresher training in M&E for Project and implementing partner staff, local organizations and primary stakeholders with view of developing local M&E capacity;

Minimum Qualifications

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

Skills and Experience

(a) Strong capabilities in data collection, including instrument testing, field data collection, data entry, random quality control testing, data compilation and analysis;

(b) Extensive experience in designing and delivering training and capacity building in PME systems operationalisation, including development of training curricula, operational guidelines, and performance management;

(c) Proven ability and expertise in working with data management software and web-based applications for use in M&E management;

(d) Experience in establishing and managing robust M&E performance reporting across a diverse range and volume of partners;

(e) Ability to plan and conduct structured and supportive field monitoring, including formal partner performance assessments, stakeholder reviews, etc.;

(f) Commitment to gender and targeting perspectives and knowledge of IP language and culture;

(g) Proven capacity in the formulation and production of high quality written material, including among others research studies, impact assessment reports, stories from the field, publications for media;

(h) Demonstrable capacity to work with private sector, civil society, media and government sectors on evaluation and monitoring programs at a national scale, and to develop appropriate communication strategies and be an effective communicator in working with a diverse range of stakeholders;

(i) Strong people management skills, willing and able to foster cross-sector collaboration and partnerships to enhance program results. Proven ability and experience in working with ethnic minorities;

(j) Strong communication skills, especially writing skills;

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	Depth and relevance of educational background	10
2	Length, depth and relevance of professional and practical experience in PME	30
3	Depth and length of management experience	5
4	Understanding of the position, Project and his/her role in successful delivery	10
5	Depth of understanding of nutrition and poverty issues	10
6	Depth of understanding of rural and agricultural development issues	5
7	Experience in designing training packages and delivering trainings for adults	5
8	Strong writing, analytical and interpersonal skills	15
9	Experience in qualitative and quantitative research	15
10	Working experience in bi- or multilateral projects	15
	TOTAL	**120**

E. Knowledge Management Manager

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

Purpose

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

General scope of the job

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

Main Responsibilities and Duties

(a) Design and implement a system to identify, analyse, document and disseminate lessons learned, particularly in relation to climate change adaptation;
(b) Consolidate a culture of lessons learning involving all Project staff and allocate specific responsibilities;
(c) Ensure that TORs for consultants recruited by the Project also incorporate mechanisms to capture and share lessons learned through their inputs to the Project, and to ensure that the results are reflected in the reporting system described above;
(d) Document, package and disseminate lessons frequently and not less than once every three months;
(e) Facilitate exchange of experiences by supporting and coordinating Project participation in workshops and development of IFAD Laos website and any other existing network of local government and IFAD programme and Projects;
(f) Identify and participate in additional networks, for example scientific or policy-based networks that may also yield lessons that can benefit Project implementation.

Minimum Qualifications

(a) A degree in agriculture, natural resource management or agricultural economics
(b) At least 7 years of professional experience in relevant fields
(c) Sound experience in working for IFAD Projects;
(d) Sound knowledge of agriculture development and food and nutrition security at smallholder level in Lao PDR;
(e) proven ability and experience in working with ethnic minorities;
(f) Ability to develop and foster external organizational relationships and applied representation skills;
(g) Knowledge of IP language and culture
(h) Have telecommunication skills and proficiency in information technology/ computer skills;
(i) Written and spoken English language skills essential

(j) Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	Depth and relevance of educational background	10
2	Length, depth and relevance of professional and practical experience in KM	30
3	Depth and length of management experience	5
4	Understanding of the position, Project and his/her role in successful delivery	10
5	Depth of understanding of food and nutrition security issues	10
6	Depth of understanding of rural and agricultural development issues	5
7	Experience in designing communications packages	5
8	Strong writing, analytical and interpersonal skills	15
9	Experience in qualitative and quantitative research	15
10	Working experience in bi- or multilateral projects	15
	TOTAL	120

F. Gender Specialist

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

Purpose

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

General scope of the job

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

Main Responsibilities and Duties

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

Minimum Qualifications

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

(i) Written and spoken English language skills will be useful

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	Depth and relevance of educational background	10
2	Length, depth and relevance of professional and practical experience in Gender and Development	30
4	Understanding of the position, Project and his/her role in successful delivery	10
5	Depth of understanding of food and nutrition security issues	10
6	Depth of understanding of rural and agricultural development issues	5
7	Experience in managing gender and development programmes	5
8	Strong writing, analytical and interpersonal skills	15
9	Experience with GESI and other gender development tools	15
10	Working experience in bi- or multilateral projects	15
	TOTAL	**120**

G. Agribusiness Development Adviser

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

Purpose

1. NNSPA intervention 18 aims to increase farmer participation in income generating activities in order to raise household income and asset bases with a view to supporting sustainably improved household nutrition. The Project will support this outcome through the identification of profitable commodity production and processing opportunities, the development of farmer producer groups and, ultimately producer cooperatives/associations, and through linking farmers to markets, including through an improved contract farming framework

General scope of the job

2. The Project will employ an Agribusiness Development Adviser who will be directly responsible for managing Project activities under Project Outcomes 4 and 5. Given the likely absence of suitable candidates among government officers, the position will be filled by contracting a suitable candidate (recruitment through open advertisements). The position will be for the full 6-year Project period. The contracted incumbents will be recruited for 2 years, renewable based on performance.

Main Responsibilities and Duties

3. The Officer will be responsible for facilitating the implementation of Project Outcomes 4: Profitable investment in nutrient-sensitive agriculture and Output 5: Linking farmers to markets. In particular, the adviser will:

a) Coordinate all implementation activities of Project outcomes 4 and 5, including their timely inclusion in the Annual Work Plan and Budget (AWPB);
b) Coordinate the overall approach, work plan and all technical assistance inputs for the outcome with the international and national technical advisers;
c) Identify technical assistance institutions or consultants for development of commodity and value chain tools and training materials;
d) Identify technical assistance institutions or consultants for development of Strategic Investment Plans;
e) Coordinate the implementation of the contract farming review;
f) Support private sector implementation of the climate change-adapted pro-poor market and value chain development plans;
g) Identify potential private sector investors and facilitate approval of the associated commodity or value chain PPP funding application;
h) Assist the private sector investors in implementation of the climate change-adapted pro-poor market or value chain development including coordination with concerned line agencies and technical service providers and other private sector actors;
i) Support and facilitate the provision of direct financial and business development service for all project-supported commodity and value chain development activities;
j) Maintain the Project M&E system with regards to the outcomes and impacts of commodity and value chain development to the poor;
k) Facilitate case studies and documentation of good practices in the climate change-adapted pro-poor commodity and value chains.

Minimum Qualifications

4. The incumbent will have sound knowledge of private sector and pro-poor market development, in particular of the agriculture commodity markets and value chain approach. S/he will have good knowledge of national and regional private sector companies and financial institutions, especially in the agro-business industry. S/he should also have a sound background and experience in business development, financial analysis and vocational training. Minimum qualifications include:

a) Ability to work in other languages used in the region will be an advantage

b) A degree in business management or equivalent

c) At least 5 years of experience in working in agribusinesses in the region;

d) Sound experience in working for International Financial Institution projects;

e) Sound knowledge of agriculture production, processing and marketing at smallholder and district level in Lao PDR;

f) Ability to develop and foster private business and external organizational relationships and applied representation skills;

g) Knowledge of IP language and culture;

h) proven ability and experience in working with ethnic minorities;

i) Good command of the English language will be essential.

Proposed Selection Criteria and Maximum Scores

No.	Criterion	Maximum score
1	Depth and relevance of educational background	10
2	Length, depth and relevance of professional and practical experience in agribusiness development	30
4	Understanding of the position, Project and his/her role in successful delivery	10
5	Depth of understanding of upland agriculture production, processing and marketing issues	10
6	Depth of understanding of rural agribusiness development issues	10
7	Experience in analysis of agricultural commodity value chains	10
8	Strong writing, analytical and interpersonal skills	10
10	Working experience in bi- or multilateral projects	10
	TOTAL	**100**

Annex 4: Guidelines on tools for participatory strategic planning

(Note: These are to be used as guidelines only. The tools should be modified/adapted as appropriate to ensure that they are useful and feasible within the specific context within which they will be applied).

A. Visioning

Purpose: to have a focused discussion around people's dreams or shared visions for the future of a project or other activity. Working from a vision helps to focus on the positive and open up people's minds to other ways of overcoming problems, rather than the standard ways of solving problems.

Step 1: Rich Pictures

Overview

- A drawing of a situation that illustrates the main elements and relationships
- Pictures, text, symbols and icons should all be used to graphically illustrate the situation.
- It is called a rich picture because it illustrates the richness and complexity of a situation.

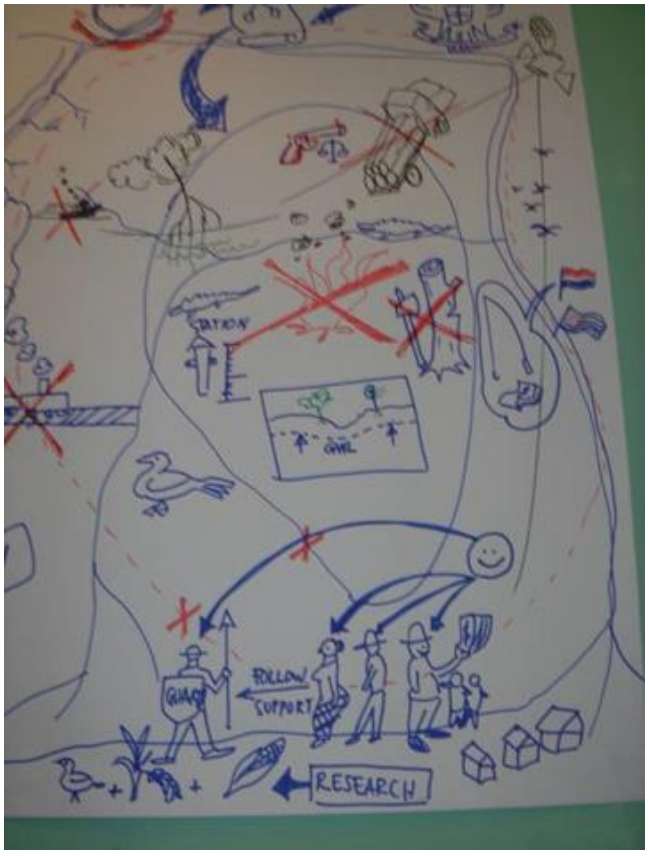
How to develop a Rich Picture.

i) Working in groups, ask communities to draw a rich picture of what they will like to see when they look around them in the area they live in in 5 years' time.
ii) After they have drawn the picture, ask them to agree on one or two sentence that describes the picture. The facilitator should write down these sentences on a flip chart.

Tips:

- Have a large piece of brown roll paper. Four standard sized sheets joined together is a good rule of thumb. The more complex a situation the larger the piece of paper required.
- Put the paper on a table or the floor around which everyone is sitting or standing in a way that each person can easily draw on the picture. Make sure each person has a marking pen and that within the group there are different coloured markers.
- Encourage everyone to contribute and make it clear that skill in drawing is not at all important.
- Start with the physical features of the situation and main stakeholders. For example, the people, organizations and aspects of the landscape that are important. Then indicate the links between these entities.
- Ensure that the pictures capture the following elements & the linkages/relationships between these elements: landscapes; issues and problems expressed by people; organizations / stakeholders; visions, opportunities; processes; institutions; climate; people; conflicts

Figure 1: Example of a Rich Picture



Step 2: Agreeing on one vision

- The facilitator will ask the group to identify key words from each sentence (one at a time) and write each word on a card. When a word has been agreed on and written on a card, they will ask someone from the group to also draw on the same card a picture that represents that word. For example, "healthy children".
- Taking one card at a time, the facilitator will ask the group if they see any other card that says the same or similar thing. These cards will be clustered together.
- Once all the cards have been clustered, the facilitator will work with the group to develop one or two sentences that describes the overall vision for the whole community. This will be written on a card and another participant asked to draw a picture (or two) also on the card that represents this vision.
- The vision will be used as the "target condition" for the conceptual models described below.

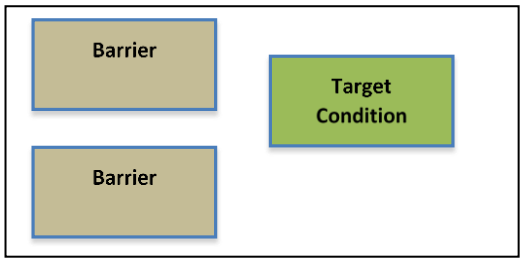
B. Conceptual Modelling

Write down the vision that was agreed upon during the clustering exercise. This is the **Target condition.**

i) Place the target condition on the brown paper to the far right hand side

ii) Facilitate a discussion amongst the participants to identify the **direct barriers** to realizing this target condition.

iii) Draw the barriers on cards – one barrier/card. These barriers should be placed to the left of the target condition. For example:

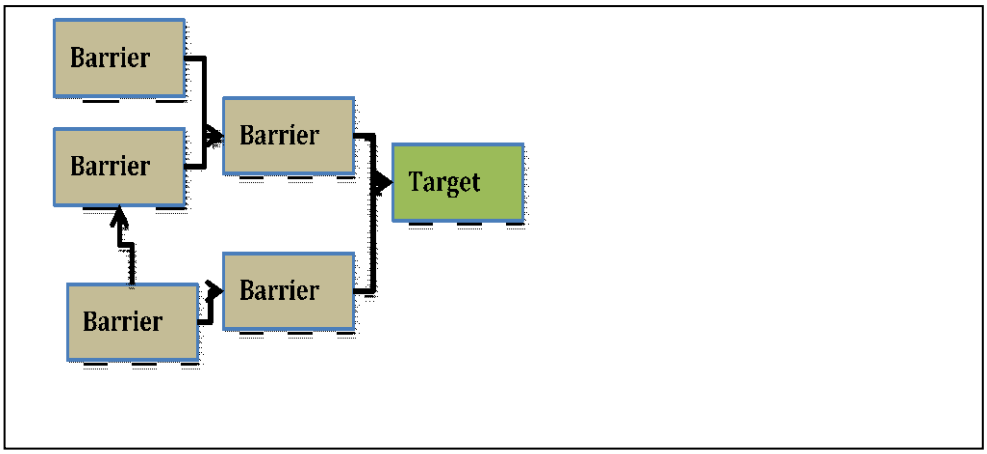


iv) Once all cards are on the wall, ask the groups (for each barrier) – "what do you think are the reasons for this barrier, what causes it?"

v) Put down each response on a card to the left of the barrier – these are the **indirect barriers**

vi) For each indirect barrier ask, "what do you think are the reasons for this barrier, what causes it?"

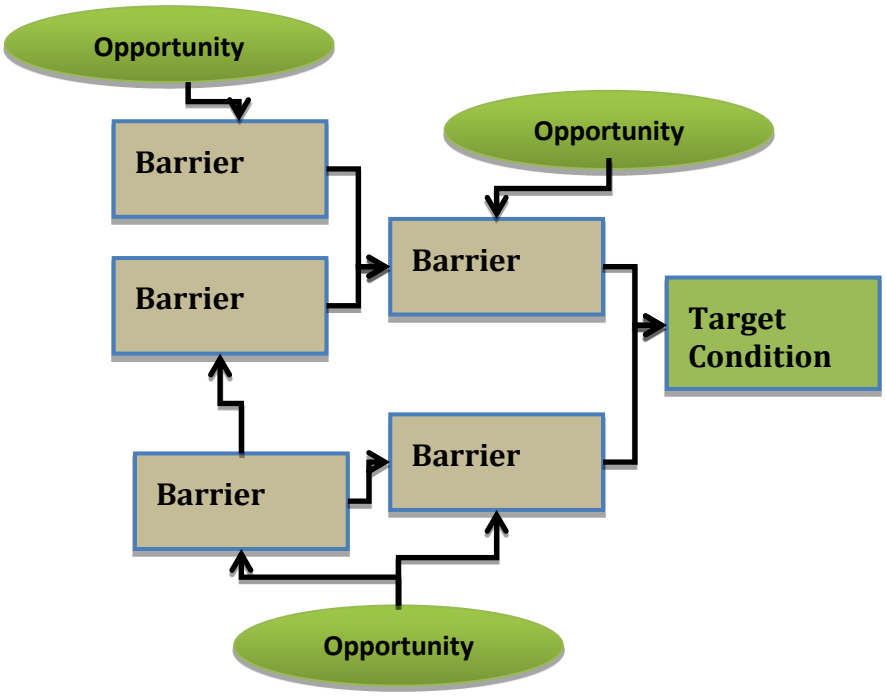
vii) Once the group is satisfied that it has identified all barriers that are of key importance, draw the relationships between the barriers using arrows (tip – it is good to do this at the end as it is likely that the cards will move during the discussions)



viii) Ask all individuals to write down on a card what they think are the existing opportunities for addressing the barriers – draw one opportunity on one card

ix) Place the opportunities on the wall nearest to the barriers to which they relate

x) Draw in the relationship between the opportunities & the barriers using arrows.



xi) With the group, group the different barriers into similar groups (e.g. all issues related to inadequate skills or issues related to inadequate infrastructure or poor policies etc.). Give each group/clusters of barriers a name and draw a picture that represents them on a card

xii) These clusters will be discussed and prioritised in the matrix ranking exercise.

C. Matrix Ranking

- Purpose: To make a relative comparison between different barriers to be addressed and prioritize which should be addressed within a particular time period.

Steps

i) Use the conceptual model to identify barriers and opportunities to realizing the vision/target conditions that could be used to achieve the target condition

ii) List the clustered barriers in a row, along a horizontal axis

iii) Discuss and agree with the group on which criteria should be used to compare the different barriers (e.g. urgency, feasibility to address etc.)

iv) Place the criteria along a vertical axis to create a matrix. Ensure that all criteria are worded in the same way (either in positive or negative terms) and that a picture is drawn to represent it

v) Decide how scoring will be carried out;

- Either by allocating a maximum of points per box (e.g. 15 = the best)
- Or by specifying a total number of points to allocate per criterion across the boxes. For example, 25.

vi) Carry out the scoring through giving individuals markers to score themselves directly into the matrix.

Example:

	Barrier group 1	**Barrier group 2:**	**Barrier group 3**	**Barrier group 4 (e.g. Lack of water)**
We can address this problem within the community by ourselves	● ● ●	● ● ●	● ● ● ● ●	●
This issue is extremely important and needs to be addressed urgently	● ● ●	● ● ●	● ● ●	● ● ● ●
It will be culturally acceptable to address this issue	●	● ● ●	● ●	● ● ● ● ●
Total	**7**	**9**	**10**	**10**

Decision: Barrier groups 2, 3 & 4 should be addressed. Barrier 1 should not.

D. Impact-Output Chains

Overview: This tool helps to plan strategically for the change process required to address the barriers prioritized and contribute to the overall vision in a visual manner.

Steps:

i) Use the card with the picture of the Vision (developed during the visioning exercise)

ii) Discuss and draw the changes in behaviour that need to happen in order to address the barriers prioritized. To do this, think about – who (e.g. stakeholder group such as men, women, elder, Local Council etc.) needs to change & how.

iii) Draw one change on one card and place this below the Vision. Do the same for each of the subsequent steps

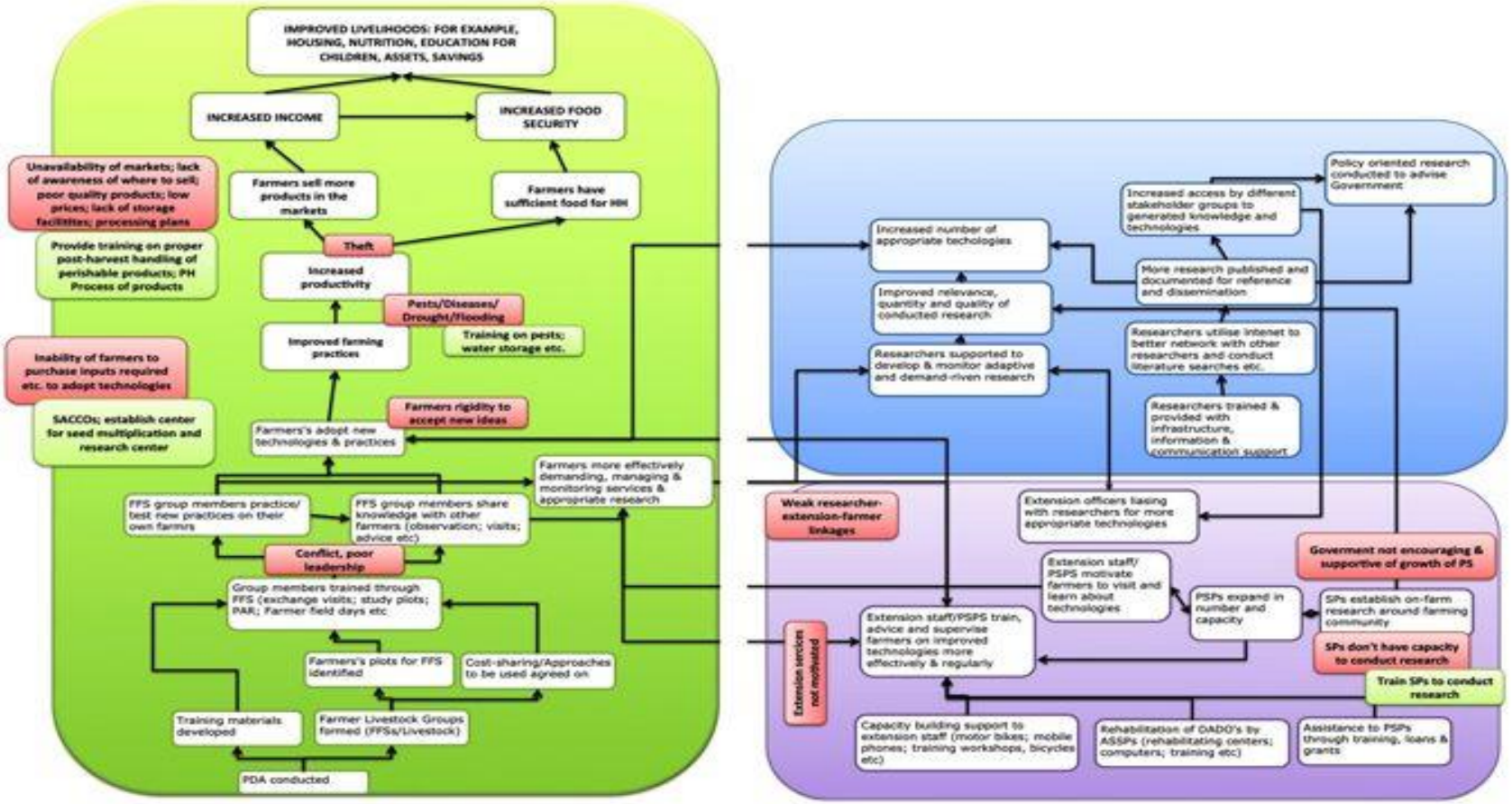
iv) For each change in behaviour, discuss and draw the changes in capacity that need to occur in order for the changes in behaviour to occur. To do this, think about – whose capacity needs to change and how (e.g. skills, awareness, motivation, etc.)

v) For each of the changes in capacity, discuss and agree on the services & products (outputs) that need to be delivered in order to bring about these changes in capacity (e.g. trained people, awareness workshops etc

.

Figure 2: Example of an illustrated impact-output map

Figure 3: Example of an impact-output (causal) map



Annex 5: Output-based contracting

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

2. The main advantages of output-based contracts are:

- Simplicity in administration as payment is based on delivery of specific milestones and milestone deliverables based on an agreed price, rather than on acquittal and reconciliation of all expenditure receipts.
- Risks of non-performance are reduced as if milestones are not delivered, no payment is made.
- Definition of milestones based on project objectives and outputs makes measurement of impact much easier.

3. The main difficulty of output based contracts is the increased effort required to define and agree the milestones, deliverables and price. Milestones have two parts (i) milestone definition and (ii) milestone deliverables. It is easier to define milestones and deliverables for infrastructure contracts than for service delivery contracts (especially "soft services" such as extension where impacts are dependent on the recipients of the service making a decision to change or adopt.

4. Output-based contracts are lump sum. There is agreement on price for service delivery and the contract specifies that price and payment schedules. For the contract owner the key task is to ensure value for money. Once this has been achieved almost all the risks are borne by the service provider. If the service provider can provide specified services at a lower price, then there is additional profit to be made. The reverse applies, however, if the service provider costs are higher than the agreed price (budget). An example of an output-based service delivery contract is detailed below.

5. Service Providers will be required to self-monitor the implementation of their contracts. In general, this will require delivery of Milestone Reports by the service provider to trigger milestone payments and VITs to inspect and provide assurance to the District that project milestones and deliverables have been completed to an acceptable level. In doing this the VIT will sign a Statutory Declaration to the District that the VIT as project manager is satisfied that the service provider has delivered the milestone deliverables to the standard required. The Statutory Declaration, signed by the VIT Chairperson and witnessed by 2 VIT members (at least one from a poor household) provides the trigger for milestone payments.

6. Statutory Declarations for Milestone payments will be delivered to the District within two weeks of Milestone completion. Where delivery dates are delayed the VIT will advise the District of delays, reasons for delay, possible implications of delays and actions taken to ensure Milestones delivery.

7. Service Providers are responsible for evaluation of the benefits the investment (infrastructure and service delivery). The process is to establish baselines prior to the commencement of each project and at the end of the project the changes in relation to the baselines will be documented. Project Baselines and Project Validation Reports (comparing socio-economic baselines to end of project status) will be payment milestones. Simple formats for baseline surveys of all project beneficiaries will be developed as a template for infrastructure and service provider projects and trained DAFO staff will assist Service Providers to tailor the standard template to their project. Service Providers may appoint (sub-contract) expertise (e.g. key farmers) to undertake baseline and project completion socio-economic surveys.

8. Trained evaluators will conduct an impact evaluation of at least 15% of all service delivery projects. Methodologies for impact evaluation will be developed by national extension specialists, but must include key evaluation criteria (relevance, effectiveness, efficiency, impact and sustainability).

For service delivery contracts where financial information is available from baseline and end of project surveys estimates of benefit – cost ratios should be attempted.

Example: Service Delivery Project

Objective: To successfully implement Community Re-afforestation for disaster risk management in Village Protected Forest Area

Project Timeframe: January 2017 – December 2018

Agreed Budget: Total Budget is LAK10 million

Service Provider: Service provider name (Farmer to Farmer Extension)

Potential Milestones, Deliverables and Payment Schedules:

Milestone	Deliverable	Payment[85]	Expected Delivery
Contract Agreement	Contract between CIG and Service Provider signed	1,000,000	15/1/2017
Project Baseline	Participatory description by beneficiaries (village) of: existing physical and socio-economic status of community managed protection forest, including number and poverty levels of households, ethnic status existing land use practices and income generated from community forestry activities.	1,000,000	01/3/2017
Re-afforestation Plans and Land Allocation	Statutory Declaration from CIG Leader that: • Community Forest Plans and Guidelines are agreed by all group members • group members have forest land use right certificates with names of husband and wife	2,000,000	30/08/2017
Nursery Operational	• Nurseries* are established and selling planting material to group members and local communities	4,000,000	30/10/2017
Agro-forestry Demonstrations	Statutory Declaration from CIG Leader that: • 10ha of intensive agro-forestry+ with forage production for household livestock and acacia hybrids for large timber production established	1,000,000	30/08/2018
Project Validation	Participatory description of benefits following project completion (compared with baseline)	1,000,000	30/12/2018
TOTAL Contract Fee Paid to Service Provider		10,000,000	

Notes: costs for establishment of Nursery are from the group co-funding stream

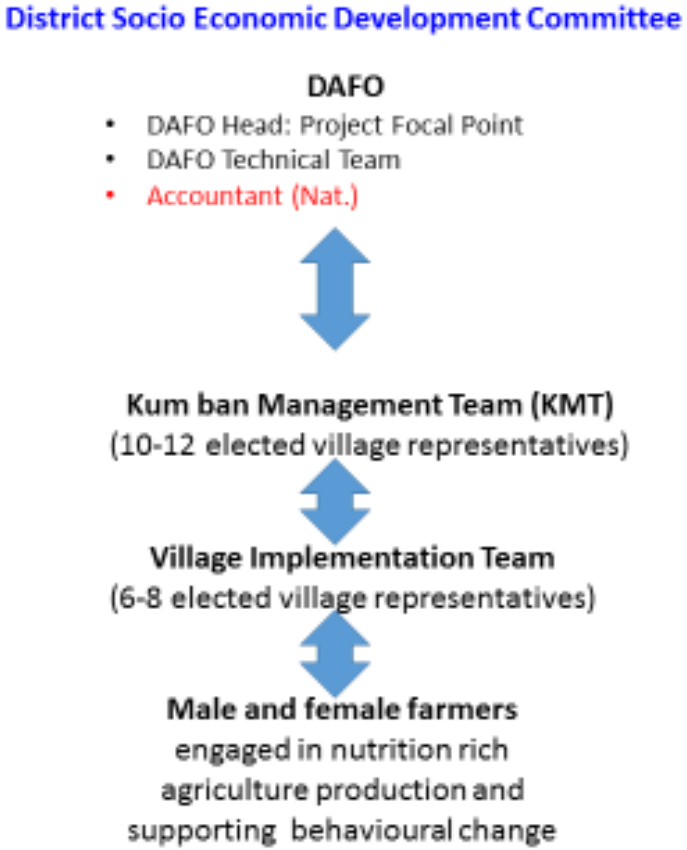
This contract demonstrates some key points about output based contracts for service delivery projects:

- The Owner is the farmer group
- The above contract includes contributions from project beneficiaries. Farmer groups are not required to contribute to the costs of improving knowledge and skills, but will be required to contribute if production inputs or small scale infrastructure (processing, value adding etc.) are approved. Where inputs are required the contract will specify the inputs and detail the milestone and deliverables required to ensure that the input costs are used for their intended purpose.
- The contract is between the farmer group and the Service Provider who is undertaking the training and skills attainment and is responsible for assisting the farmer group with implementation of small scale infrastructure (nursery).
- The contract manager is the VIT who will oversee project implementation

[85] The cost of undertaking each milestone (output) are examples only and the total contract and payment for each milestone should be based on the cost/prices quoted by the preferred service provider

- The implementer is the Service Provider who has responsibilities for self-monitoring the implementation with the farmer group verifying and signing off those services have met expectations.
- Evaluation is through a comparison between the baseline and project validation. In service contracts the Service Provider is responsible for simple baseline surveys and project validation. Assistance to do this will be provided by evaluators from the farmer group or the DAFO/TSC.

Annex 6: Project Organogram



Key Project Support.

- Short term Nat. TA
- Service providers deliver experiential learning in participatory planning/implementation;
- Service providers support agri-business development
- Office materials and equiment
- Vehicle
- Training
- Travel and Field allowances including for district-managed short-term staff transfers from Provincial offices

Key Project Support.

- Service providers/district support to participatory planning and investment implementation;
- Funds for community force account procurement
- Grants to support innovative, climate adapted, nutrition -ich agriculture production by farmer groups
- Support for farmer-to-farmer extension
- Training in financial management, group dynamics, contract management, etc.
- Technical training
- Office materials
- Travel and field allowances to meet other KMTs/VITs/farmer groups
- Linkages to agri-businesses and markets

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

A MAF Project Monitoring and Information System

1. The Ministry of Agriculture and Forestry (MAF), recognizing that its monitoring and evaluation of project performance within the agriculture and forestry sectors was haphazard, established in November 2012, with initial support of FAO and later the SSSJ, a "Project Management and Information System (ProMIS)". The overall objective is, in line with the government policy and the Vientiane Declaration on Aid Effectiveness, to enhance the efficiency and effectiveness of public investment programme (PIP) management under MAF, with a focus on standardizing logical frameworks for monitoring projects within agriculture and forestry sector and developing tools for recording data and generating various reports on project results.

2. The objective of the first ProMIS phase was to develop a practical prototype for the PIP and ODA M&E. The system is primarily focused on project implementation monitoring, more than on project evaluation. The outputs during the phase included the establishment of the central M&E Unit within the Project Management Division (for ODA projects) and the development of the M&E system including the ProMIS internet-based data interface The system was presented to some ODA project teams, but has not yet been piloted in the three provinces of Xayaboury, Savanakhet and Saravan as planned. The system is designed to report on the quarterly implementation progress and achievements of PIP and ODA projects against their own planned targets / indicators of activities, outputs and outcomes. Monitoring reports are proposed for individual projects as well as their aggregations in terms of geographical units (district, provincial and national) and technical/sector fields. ProMIS is developed an internet based system with five data sets (project design data, annual / quarterly implementation plans, quarterly progress data) together with summary data for quarterly monitoring reporting. A ProMIS user's manual has been completed (in Lao and English), but not yet published.

3. The strengths of the ProMIS system to date include: (i) DoPC and MAF continue to attach high importance in developing an operational M&E system; (ii) experienced consultants and staff have worked effectively and are available to improve the system; (iii) good cooperation amongst MAF line departments and piloted PAFOs/DAFOs of selected provinces; (iv) FAO and IFAD-SSSJ collaboration and involvement in the system development has been effective; (v) ProMIS is a Web-based operating system, thereby improving data interchange; (vi) ProMIS uses a standardized project logframe and data collection tools for all projects within MAF; (vii) the system is focused on outputs/outcomes and beneficiaries monitoring; (viii) reporting based on output/outcome and beneficiary monitoring data are stored in the ProMIS database.

4. It does, however, face several constraints: (i) too little time and funding was budgeted for its comprehensive development resulting in some failures in the pilot system; (ii) some PIP projects, have not been adequately prepared resulting in the lack of necessary information for the ProMIS system; (iii) collaboration between the ODA projects under DPC responsibility has been inadequate, especially concerning the sharing of project data, implementation plans and progress reports; (iv) the level of understanding and skills related to monitoring (including project design principles) and information technology in MAF is low and requires upgrading; (v) establishing compatibility with donor M&E requirement (e.g. RIMS) is challenging; (vi) there is not yet any mechanism for systematic data collection and analysis for report production.

5. In order to establish a fully functional M&E system within MAF, further development and refinement of the ProMIS system is urgently needed. The piloting of the system, including the reporting process, is a priority for its further development. Capacity building for PMD staff is also urgently needed and the system should be integrated into MAF's management process, mainly regarding the use of periodic monitoring reports at various levels. Additional funding is also required and new ODA projects should be urged to collaborate with PMD with a view to applying ProMIS in their project M&E systems.

6. The Project has made provision for the further development of the ProMIS and will strive to internalise its M&E operations within the ProMIS once the system has the capacity to manage SSFSNP M&E.

B Measuring, Managing Results and Learning

7. Measuring and learning. The basis for integrated, participatory planning and budgeting includes a predictable resource envelope and spatially disaggregated data on basic socio-economic indicators and access to services as well as the local needs and priorities identified through grassroots planning meetings, with adequate representation of women and youth, and reflection of their priorities.

8. Efforts to measure and assess the effectiveness of community development initiatives in Laos have often been detached from the day-to-day work and provide limited support for planning or continuous learning. Today there are new data sources and technologies to map community needs and resources, measure the performance of programs and services, and track individual, family, and neighbourhood outcomes. The partnerships initiated around the multi-sector nutrition strategy include a convergence approach that envisages collective impact- reflecting the reality that no organization can single-handedly solve complex problems like malnutrition or persistent poverty, and that significant progress only occurs when actors from different sectors work together in pursuit of a common agenda. When this agenda is made explicit by a set of agreed-upon and measurable goals, participating organizations can hold each other accountable and their work is more likely to remain aligned. It is important to recognize, however, that agreeing on these collective goals and developing the data systems necessary to track progress takes time and money.

9. Given the complexity of the task, collective impact measures may be developed with the help of an embedded research organization that can translate desired outcomes into operational measures and assemble and process the data necessary to track these measures over time. But these data and measurement tasks cannot simply be handed off to a research partner while other partners develop and implement strategies and activities. Collective impact measures will only be useful if they produce information that helps local actors learn from disappointments, as well as from successes, and continuously refine their efforts based on information. The hard work of measurement and analysis must be woven into the core planning and decision making responsibilities of the champions and implementing partners of the multi-sector nutrition strategy.

C Main objectives of SSFNSP M&E system

10. The SSFNSP M&E system will be an integrated M&E/KM system combined with ProMIS requirements in a comprehensive MIS, which will be developed with three main objectives:

11. • **Steer Project implementation**: it should provide Project stakeholders with the information and analysis required to: measure Project outputs and outcomes; assess Project effects on the livelihoods of participating farmers (including poorer households and women); assess the relevance of the Project strategy, methodologies and implementation processes; detect difficulties and successes; and support decision-making to improve Project performance. It should also provide information to measure Project contribution to the implementation of MAF national strategies, and to the achievement of COSOP targets;

12. **Support economic decisions and policy-making**: it should provide value chain stakeholders, and, in particular farmers' organizations, with the information and analysis they need to assess the return brought by innovation, to develop profitable activities and to adapt their strategies accordingly, by monitoring both quantitative (yields and production, margins, credit management…) and qualitative results (members'/clients' satisfaction). Furthermore, it should provide stakeholders and government with the information needed to make policy decisions that can positively benefit economic activities within the value chains; and

13. • **Share** knowledge: based on the above, the M&E/KM system should develop lessons learnt, capture good practices and successful innovation, and share knowledge under appropriate formats to support Project performance and policy dialogue. Specific areas of interest in this respect comprise inclusive business models, public-private partnerships for farmers' access to services, and innovative financial instruments.

D Strategic Approach

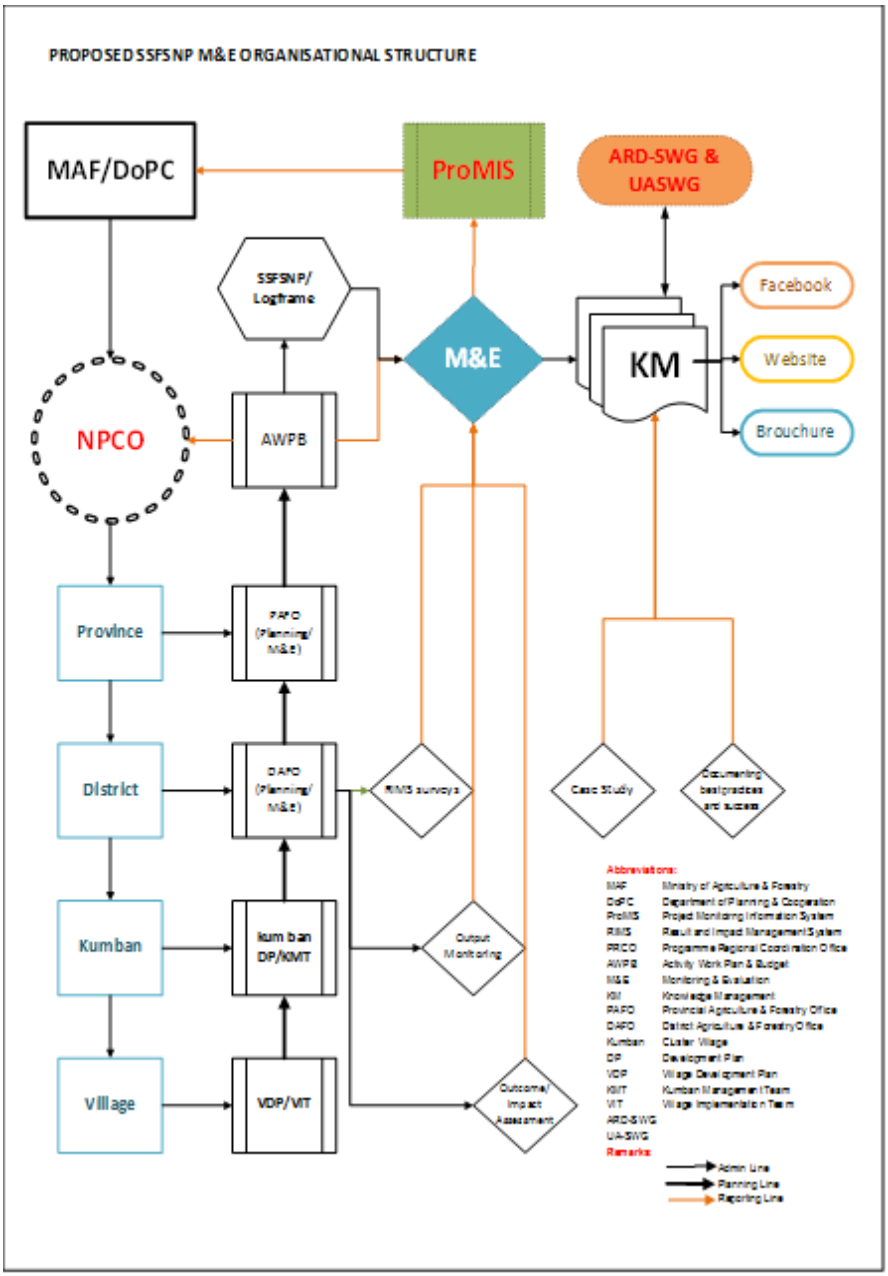
14. The VDC processes includes in-built participatory planning and monitoring processes, with the objective of: enhancing participation in decision-making; improving ownership and sustainability; and strengthening transparency and accountability. This feeds into District planning, measurement and learning processes through the Village Development Plan and the district and provincial public investment programmes. The proposed approach to measuring results, managing performance and learning includes the associated vertical and horizontal linkages.

15. At District level, Members of the DSEDCC, or its equivalent, shall support the VDP monitoring processes, providing opportunities to engage more closely with community members and better internalise and learn from the grassroots constraints, challenges, strategies and opportunities. Horizontally, these shall be complemented through peer reviews among districts. For information on appropriate tools for community level monitoring see: http://asia.ifad.org/c/document_library/get_file?uuid=0aa65b12-1bce-4ad3-ab32-bffbce747184&groupId=627927 and http://asia.ifad.org/web/toolkit/me_field_tested#tools

16. The DAFO and the multi-sector DSEDCC shall be responsible for data collection on project outputs. In addition, DSEDCCs shall collate lessons on outcomes by undertaking Most Significant Change (MSC) methods to capture key issues and changes perceived by a sample of the targeted communities. These MSC interviews shall be filtered at district level with the multi-sector nutrition teams and the District Governor, who shall select the most common and most insightful stories, to be forwarded vertically to Provincial authorities, through the PAFO. At the Provincial level, each PAFO shall appoint an M&E officer (SSFSNP Project Coordinator), who shall be responsible for measuring the progress towards project outcomes. This shall include commissioning surveys and assessments of programme outcomes- such as Knowledge Attitude Practice Surveys (see attachment 3), Annual Outcome Surveys (see WP 2, Institutional Strengthening, Attachment 4 and http://asia.ifad.org/web/toolkit/me_field_tested#annual; and qualitative methods such as Focus Group Discussions (see WP 2, Institutional Strengthening, attachment 5). These measurements shall be anchored on the assessing (i) linkages between outputs and outcomes in the project results chain and (ii) the validity of assumptions expressed in its theory of change. The PAFO officer shall organise presentations of the analysis and findings of these studies as well as reviews of MSC stories received from districts at the provincial level and selecting those that will be forwarded to the national level. These review presentations shall involve District representatives (DESDCC, and District Governors) as well as the various members of the Multi-sectoral Nutrition Committee at district and provincial level.

17. At the national level, MAF-DPC shall play the role of knowledge hub for collating and consolidating results measurement and sharing these across provinces and among national agencies. MPI shall be a key partner in this platform, which is expected to influence strategy and policy setting as well as broader Government programming and investments. The DPC shall be responsible for preparing and supervising the overall M&E plan in close consultation with PAFO M&E officers- including clear assignment of roles, resources and timing of M&E activities.

Figure 1: SSFSNP M&E and KM organizational structure



18. MAF shall also support broader learning by engaging the NAFRI in deepening the analysis of district and provincial data through national studies and assessments/ evaluations of the link between outcomes and impact, and by informing policies/strategy setting through evidence building. NAFRI shall also be responsible for liaising on measurement and analysis with the M&E Group for the National Nutrition Strategy. In particular, NAFRI shall liaise closely with UNICEF, which is leading the technical support to the national nutrition strategy and with the SSWGUp on nutrient-rich upland agriculture.

19. At all these levels, the multi-sector task forces shall be involved, through vetting of terms of reference, participation in execution of M&E work and sharing of analytical findings. The project shall also support dissemination of overall and district or village findings through video and radio. Such feedback loops are essential for incentivising villages to participate in data collection and benefit from learning processes; and provide villages with comparators and good practices.

20. The SSFSNP M&E work programme shall be supported by WFP and FAO. In particular, the two UN agencies shall advise MAF of best practices and tools for adopting IT in monitoring project progress and outcomes (SMS, WhatsApp progress updates, tablets for data collection, online databases, etc.) The SSFSNP M&E and KM organizational structure is detailed in Figure 1.

E Project Results Chain and M&E Plan

1. The project's results chain is described in the following page. The project shall develop an M&E matrix based on this results chain and the M&E plan detailed in Table 1. below

Figure 2: Project Results Chain

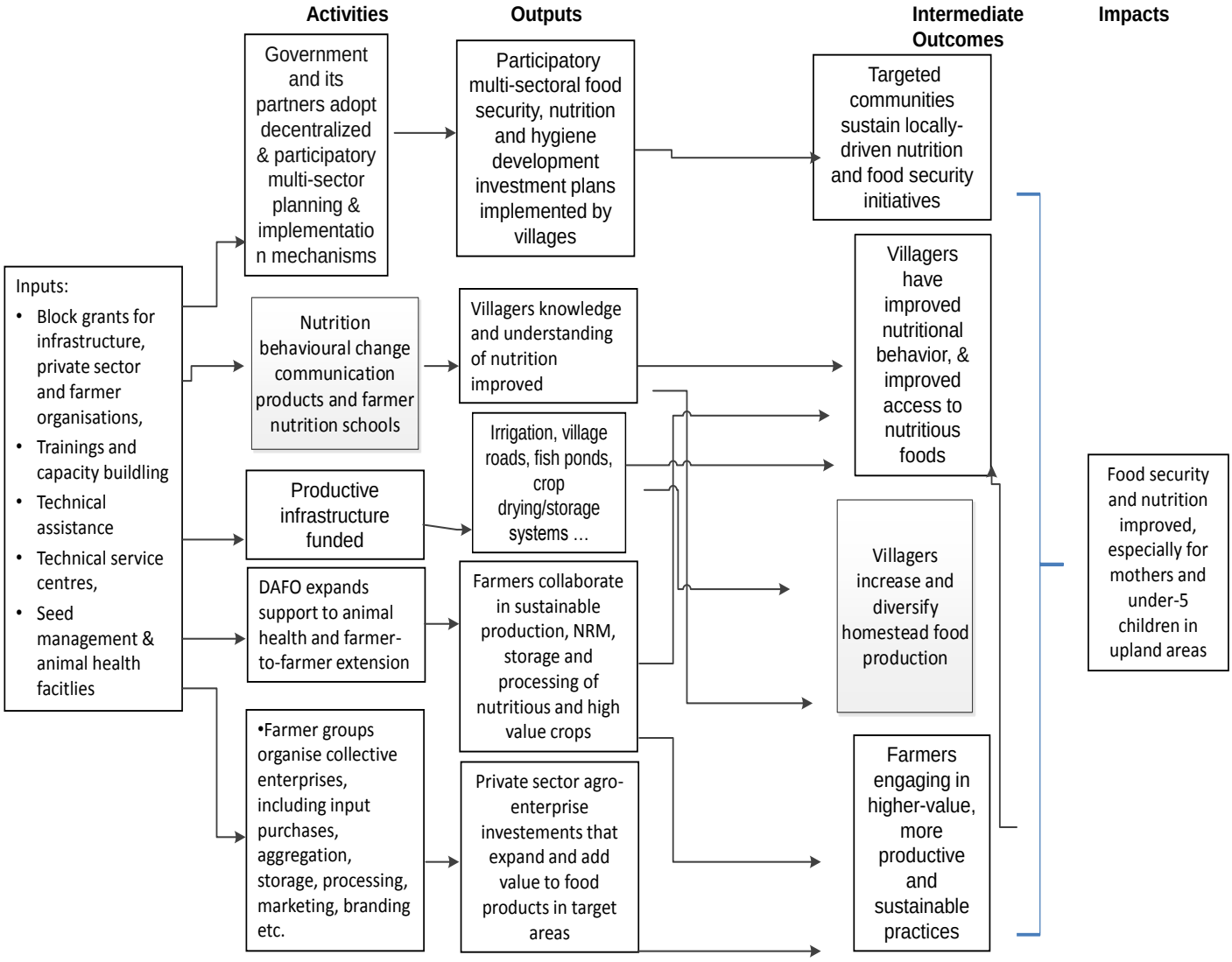


Table 1: Principal elements of programme planning, M&E, and learning system

Component/ Subcomponent/ Principal Activities	Planning	M&E	Learning
Outcome 1: Strengthened public services			
Output 1. Build government staff capacities and procedures and technical packages to support and converge community implementation of selected National Nutrition Strategy interventions			
• *establish a tiered Project planning, supervision, monitoring, knowledge management and learning system within MAF, supporting nutrition investment convergence strategies in target districts.*	MAF-DPC plan for an holistic M&E system (ProMIS)	Monitor change in capacities at government level	(i). Systematization of MAF ProMIS system
• *. Build GoL service provider (DAEC, TSCs and NAFRI) capacities to develop and deliver sustainable climate-adapted and nutrition-sensitive agriculture and natural resource management technologies and training programmes and monitor their impact*	GoL agencies plan for more sustainable and profitable technologies and service delivery	Monitor adoption of technologies and use of delivery systems by farmer groups, disaggregated by gender. Longitudinal studies of on-going adaptation behaviour among reference producer groups Baseline, Midterm Review, Completion evaluations	Sustainable and profitable forage seed and plant production technologies and promotion systems; Sustainable systems for farmer-to-farmer and enterprise-to-farmer learning; Sustainable systems for TSC management Dissemination: learning series, technical guideline manuals, ToT, technical training, learning events, knowledge platforms/networks
Outcome 2: Community-driven agriculture-based nutrition interventions established			
Output 2. Planning for improved nutritional outcomes			
• *District multi-sectoral convergence planning*	DSEDCC and District Nutrition Committee coordinate nutrition convergence planning at district level.	Monitor level of convergence funding	Mechanisms for successful inter-ministerial planning and collaboration Systematization of results
• *Village development planning*	VIT and KDT committees established, supported by DSEDCC at district level	Monitor level of community participation, disaggregated by gender and poverty class.	Systematization of scalable district-coordinated community driven development; Dissemination: technical guideline manuals, ToT,
Output 3. Women-led improvement in household nutrition			
• *Farmer nutrition schools*	LWU-coordinated process of women-led household nutrition planning through FNS	Monitor social and nutritional behaviour change amongst women-group members	Systems for sustainable women's group formation and management; Systems for effective LWU engagement in women's

Component/ Subcomponent/ Principal Activities	Planning	M&E	Learning
	platform.		development; Dissemination: learning series, technical guideline manuals, ToT,
• *Household availability and utilization of nutritious food*	Women's groups collectively plan to address household nutrition gaps.	Monitor change in dietary intake at household level by food category and time of year.	Map of household dietary intake by season; Sustainable technologies for improved household nutrition; Dissemination: learning series, technical guideline manuals, ToT, technical training, learning events,
Outcome 3: *Sustainable and inclusive market-driven partnerships established*			
Output 4. Profitable investment in nutrient-sensitive agriculture			
• *Strategic Investment Planning*	Identification of commodity chains offering economic opportunity for the Project area	Monitoring of integration of SIP results in SSFSNP planning and investment programmes Annual Outcome Surveys	Systematization of enterprise financial and economic analysis skills; Dissemination: learning series, technical guideline manuals, ToT, technical training, learning events, knowledge platforms/networks.
• *Village development fund*	VIT plans implementation of community force-account construction; Farmers groups associate and plan for sustainable incremental production	Monitor level of investment by type and effectiveness of maintenance over time Monitor transformation of farmers groups into commercially oriented association/cooperatives operating at scale.	Scalable systems for forming farmer associations and cooperatives; Sustainable technologies for upland agriculture Dissemination: learning series, technical guideline manuals, ToT, technical training, learning events, knowledge platforms/networks
Output 5. Linking farmers to markets			
• *Contract farming review*	Tripartite group of GoL, investors and farmers plan for more equitable contractual outcomes	Monitor change in legislation and resulting impact on investment and profit allocation	Systemization of equitable contract farming legislation and negotiation
• *Public-private Partnership*	Investors plan for sustainable commodity markets and value chains	Monitor level of profitable agribusiness investment	Cost-effective, sustainable and scalable mechanisms for PPP

F Project M&E Structures

21. **Output monitoring** will measure the progress of activities and achievement of outputs against targets in the Annual Work Programme for each project component. The output measures will be directly associated with outcome targets and indicators as expressed in the project logical framework. Physical and financial progress reports will be fundamental outputs of the project MIS. Data will be collected by DAFOs from registers and accounts kept by kum ban and village officials, farmer organisations and from contractors building rural infrastructure. Data will be collected disaggregated by gender, particularly those related to training, exposure and access to services.

22. **Participatory Monitoring and Evaluation** (PME) at the community level will be implemented to track and rate progress against village plan targets. PME forums will be set up in villages, with simple activity sequencing charts and other tools to help the communities monitor their progress, evaluate performance, and identify implementation issues. The PME process will be established with support from a national Consultant and carried out with support of local NGOs. The MSC stories shall also be captured and shared through video, so that villagers can gain insights from their peers in other villages, districts and provinces.

23. **Process monitoring** involves monitoring the processes leading to outputs and outcomes. Specific areas where progress monitoring will be useful in SSFSNP include the provision of technical services, the execution of participatory village planning, budgeting and execution, and the functioning of private public partnerships. Information on these may be gathered via PME, as well as from village or private sector partner records. In addition, the Project will undertake specific studies related to food security, women's empowerment, market access and efficacy of producer groups, value chain development, functionality of infrastructure, and benefit assessment of project services for the target group. The National Planning and M&E officer will jointly plan process monitoring with PAFOs and DAFOs.

24. **Outcome monitoring** measures the changes coming about as a result of project interventions. This will entail annually measuring and assessing whether the project is moving towards achieving the project objective. Annual outcome surveys will be undertaken to measure these changes, which shall also collect data for 2nd level RIMS indicators. The surveys will be led by PAFOs, cover two separate random samples (treatment and control, of 200 households each), and will monitor the changes in the phased cohorts of beneficiaries, as additional districts are included in the project every year. Information on the effectiveness of trainings will be assessed via Knowledge, Attitude and Practice (KAP) surveys carried out each year by provincial M&E officers. An approach to implementing KAP surveys is detailed in WP 2, Institutional Strengthening, Attachment 3.

25. **Impact evaluation** shall assess the contribution of SSFSNP in achieving the overall goal of the project. It will consist of baseline, mid-term and end-of-project surveys. Commissioning of these surveys shall be coordinated by NAFRI, and contracted to an external agency. Information to be collected will include the impact level indicators of IFAD's Results and Impact Monitoring System (RIMS). These include mandatory 'anchor indicators' relating to household assets, food security and child malnutrition (anthropometric data of children under five years of age), as well as dietary diversity scores. ToRs will be included in the draft PIM.

26. **RIMS indicators** IFAD's Results and Impact Management System requires projects to report annually on a number of first and second level results indicators that correspond to the output and outcome indicators. IFAD has produced a standard list of these indicators, but only some of these will apply to SSFSNP. The project will report on first level results for the first two years, and begin to measure and report on outcomes from year three of the project. The corresponding second level indicators are used as evidence to support ratings of the effectiveness and likely sustainability of each component.

27. **Special Studies** will be undertaken before mid-term review related to the following:
(i) agribusiness and marketing (growth and development of sales in selected commodities, including volume and value of raw and processed products, and impact and maintenance of rural infrastructure); (ii) production and productivity (forage development and livestock productivity, adoption of improved rice varieties, and cropping system studies on nutrient-rich and horticultural crops); (iii) environment and NRM (impact of soil and water conservation measures, precipitation, soil erosion, etc.); and (iv) use and benefits of district/village funds. Cost effectiveness studies will be also

undertaken to assess delivery systems and implementation methodology/approaches adopted by DAEC.

Implementation of M&E

28. Staffing: The Planning and M&E Manager, who is the project's lead M&E staff, shall be based at the NPCO; and shall be supported by M&E focal points at each PAFO (PAFO Coordinator) within the project area. The NPCO shall also include a Knowledge Management officer to coordinate SSFNSP national surveys and studies under the oversight of WFP and in collaboration with the SSWGUp and the Multi-Sectoral Nutrition Committee and its members, particularly UNICEF. The SSFSNP staff at participating DAFOs shall lead M&E and knowledge management among the DSEDCC. These staff will be responsible for managing and coordinating monitoring of activities and outputs, and for working with field NGOs and contracted Service Providers on participatory M&E, process monitoring and KM.

29. Capacity building of project staff will be undertaken through a structured orientation training programme, refresher training, and information sharing. Orientation training will be undertaken during induction of new staff, and the refresher training on an annual basis. In addition, the project will also facilitate the establishment of partnerships with technical experts (e.g. for KAP survey and PME technical assistance), and other development projects, to enhance exchange of information and mutual learning. Project M&E staff will be required to undertake the IFAD online M&E training.

30. Technical assistance for: a) KAP surveys, b) participatory M&E, and c) anthropometric and dietary diversity surveys will also form part of the capacity building strategy. The Planning and M&E Manager and PAFO M&E focal points will be responsible for procuring these services in consultation with the Project Coordinator and WFP and IFAD Country Office. The Project shall also draw on technical assistance for developing the project's GIS tracking system. The aim of technical assistance is to bring expert and specialist knowledge into the project to improve the adoption of M&E practices and knowledge that will be imparted through training, and to improve the feedback loops to district and kum ban officials, as well as to enhance the quality of surveys.

Management Information System (MIS)

31. An MIS system such as IFAD's Planner will be established in the first year of Project implementation. They will capture information on physical and financial progress, procurement plans and progress; as well as on baseline conditions, outputs, outcomes, and impact tracking, and other pertinent information. These will be automated to generate regular periodic reports (monthly and quarterly) and annual progress reports. For IFAD corporate reporting, semi-annual and annual Progress Reports are required. The project shall also apply a GIS tool and satellite imagery to trace and analyse project progress and results.

32. Monthly Progress Reports will be prepared from the project MIS developed to generate information at District level, and compiled at provincial level. Information in the report will contain component-wise physical and financial progress against annual targets. This report will form the basis for monthly progress review at all levels.

33. Semi-annual and Annual Progress Reports will be prepared from information compiled by the PCO on component-wise physical and financial progress, and loan category wise progress from the project MIS. It will contain summarised information from villages visited by M&E staff, findings from PME, KAPs, annual outcome surveys and any other surveys. They will show progress towards development objectives, and also problems that are not adequately addressed, degree of responsiveness of the staff of different support agencies, usefulness of training (information from KAP surveys), benefits from rural infrastructure, performance of private sector partnerships/value chains, successes and failures, gender and knowledge management. These reports will be prepared based on the reporting format to be included in the draft PIM (Project Implementation Manual). The PCO will prepare the semi-annual progress report by the end of July and the annual progress report by the end of January.

J Learning System

34. The project learning system comprises of local monthly and national semester and annual review meetings, capturing information on progress, lessons and finding solutions for implementation constraints.

35. Semester Review Meetings (SRMs). The semester progress report will be used during the SRMs at the provincial level, with participation of the NPCO. Over and above reviewing physical and financial progress for the semester against annual targets, the project will also review the performance of service providers, implementation constraints, document lessons, and recommend actions to improve implementation.

36. A consolidated Annual Project Review will be carried out towards the end of each fiscal year, in addition to the semester reviews at national level. It shall assess performance in the achievement of physical and financial progress against annual targets. Furthermore, review of progress towards development objectives as reflected in the Outcome Surveys will be done assessing success and failures and reasons thereof and lessons learned.

37. Mid-Term Reviews (MTR). The Government, IFAD and WFP shall undertake a mid-term review by the fourth year of the project lifecycle to review project achievements and implementation constraints. In particular, it will review the following: (i) achievement and improvements in the production systems, improvement in food security, and increase in income; (ii) the performance of private sector partnerships; (iii) performance of Producer Groups and other community institutions; (iv) impact of other project activities; (v) financial and procurement management; (vi) and human resources management. A mutually agreed action plan will be prepared based on the MTR findings.

38. Project Completion Review. As the project reaches completion, the NPCO will prepare a draft Project Completion Report. IFAD and the Government will then carry out a Project Completion Review based on the information in the Project Completion Report and other data.

K Knowledge Management

39. WFP will assist the project to prepare its KM strategy during its first year. The KM system will enable the Project to generate, capture, share and disseminate relevant information and knowledge to various stakeholders in a timely manner. The Project website will be completed within the first year of implementation and used as a knowledge sharing tool. The NPCO will extensively document and share knowledge generated in the project. The SRM forums will be used as potential knowledge sharing (KS) venues for capturing lessons learned and best practices leading to development of related knowledge products. Key information from M&E studies, reviews and exposure visits, lessons and best practices will be disseminated through knowledge products such as newsletters, publications, case studies and reports, etc. The NPCO will strive to build a culture of knowledge documentation and sharing within the project. The SSWGUp, supported by the DAEC, will assist the SSFSNP to develop a KM/leaning platform on sustainable, market-oriented nutrition rich upland agriculture.

Appendix 7: Financial management and disbursement arrangements

Financial Management and Disbursement Arrangements

1. **Financial management**. The NPCO will be responsible and accountable to Government and IFAD for the proper use of funds. NPCO will ensure coordination, monitoring, supervising and reporting on SSFSNP. They will provide a consolidated financial statements of the operations, resources and expenditures related to the programme for each fiscal year, prepared in accordance with standards and procedures acceptable to IFAD. Given the limited capacity of staff at provincial and district level, extensive initial training in financial management/procurement is an essential pre-implementation activity and will be undertaken with both external (technical assistance) and internal (MOF and MAF) resources. The initial training must provide specific skills on IFAD/GOL procedures for the finance staff at the NPCO/PAFO/DAFO. A draft Financial Management manual will be developed before the start-up workshop.

2. The GoL shall ensure that counterpart funds are provided in a timely manner, particularly with regards to instances where parallel financing arrangements are used. Failure to do so may impede the efficiency and effectiveness of Project implementation.

3. **Designated Account (DA):** The GoL shall open a Designated Account (DA) denominated in US dollars in the Bank of Lao PDR for receiving and holding the loan proceeds. The Designated Account will be operated by the MoF. Specifically, MoF will: (i) transmit Withdrawal Applications (WAs) to IFAD; (ii) receive IFAD replenishments into the DA; and (iii) transfer the funds from the DA to the Programme Account (PA) based on the AWPB and replenishment requests. MoF shall ensures that fund received at NPCO are transferred without delay. NPCO will ensure that replenishment requests from implementing agencies are in order and that timely withdrawal applications are sent to IFAD (through MoF), with appropriate supporting documentation.

4. Programme Accounts: There shall be one Programme Account (PA) at the NPCO in local currency (LAK). The PA shall be funded and replenished as necessary from the resources held in the Designated Account, upon request of the NPCO and in accordance with expenditures incurred under approved AWPB. The Project Coordinator of the NPCO shall be fully authorized to operate the relevant PA**.**

5. Programme sub-accounts shall be opened at each Project province and district to receiving funds from the PA. The Programme sub-accounts shall be dominated in LAK and will be managed by respectively PAFO or DAPO Project teams.

6. **Initial Deposit into the Designated Account (Authorized Allocation):** Upon the entry into force of the IFAD loan and the Borrower's request, IFAD will make one withdrawal of USD 2 million in the aggregate, from the GAFSP Grant Account on behalf of the Borrower and deposit such amount into the Designated Account to carry out the Programme. The request to IFAD for such deposit needs to include the following documents:

- Signature Specimen: Signature specimen of the authorized officials who are managing the Designated Account must be confirmed by MoF with signature and submitted through MoF to IFAD in the form acceptable to IFAD with the request for the deposit;
- Letter of Evidence: A "Letter of Evidence" issued by the Bank holding the Designated Account must be submitted to IFAD with the request for the deposit. The "Letter of Evidence" should confirm the opening of the Designated Account, provide the account number and address, and state the agreement for the operation of the account. The "Letter of Evidence" should also indicate the "SWIFT" code for the bank in question.
- Form 100: A "Form 100" needs to be filled in and correctly signed and submitted to IFAD with the request for the initial deposit.

7. **Replenishment of the Designated Account:** IFAD will replenish the DA upon request. Withdrawal applications for replenishment of the DA should be denominated in US Dollars and should be submitted on a frequent basis, provided that the expenditure made during the previous months is

more than or equivalent to the Minimum Withdrawal Amount, about 20% of the initial advance or 90 days of eligible expenditure incurred from the DA, whichever occurs first. All withdrawals shall be in line with Project expenditures as detailed in the approved Annual Work Plan and Budget (AWPB)

8. The amounts withdrawn from the DA in local currency should be converted into US dollars using the prevailing exchange rate at the date of disbursing to the Programme Account. Each claim to IFAD for the replenishment of the Designated Account needs to include the following documents and statements:

- A duly filled and signed "Form 100";
- Form 101 or 102;
- Designated Account Reconciliation Statement: A correctly completed "Designated Account Reconciliation Statement;
- Supporting documentation relevant to the eligible expenditures.

9. **The SOE Threshold** for all expenditures pertaining to all categories is recommend to a ceiling of USD 60,000.

10. **Eligible Expenditure**: The Financing shall be used exclusively to finance expenditures meeting each of the following eligibility requirements:

a) The expenditure shall meet the reasonable cost of goods, works and services required for the Project and covered by the relevant AWPB and procured in conformity with the Fund's Procurement Guidelines;

b) The expenditure shall be incurred during the Programme Implementation Period, except that expenditures to meet the costs of winding up the Programme may be incurred after the Programme Completion Date and before the Financing Closing Date;

c) The expenditure shall be incurred by a Project Party;

d) If the Agreement allocates the amount of the Financing to categories of Eligible Expenditures and specifies the percentages of such Eligible Expenditures to be financed by the Financing, the expenditure must relate to a category whose allocation has not been depleted, and shall be eligible only up to the percentage applicable to such category.

e) The expenditure shall be otherwise eligible in accordance with the terms of the Financing Agreement.

11. Any payments to a person or an entity, or for any goods, works or services, if making or receiving such payment constitutes a coercive, collusive, corrupt or fraudulent practice by any representative of the Borrower/Recipient or any Programme Party, shall not be eligible for financing by IFAD.

12. **Taxation**: The proceeds of the financing may not be used to pay taxes. All taxes are to be borne by the Government.

13. **IFAD Policy on Anti-Corruption and Fraud**: IFAD's policy to require that the staff of IFAD (including beneficiaries of IFAD loans), as well as all bidders, suppliers, contractors and consultants under IFAD-financed contracts to observe the highest standard of ethics and integrity during the procurement and execution of such contracts. Mechanisms for whistle-blowers to access IFAD systems are provided at the following link: http://www.ifad.org/GoLernance/anticorruption/how.htm

14. **Disbursement Procedures**: There are four standard procedures that can be used to request withdrawals from the Grant Account, which are as follows:

a) Procedure I: Advance withdrawal (replenishment of the designated account, using imprest accounts or revolving funds with replenishment to a bank account(s) designated to receive financing resources in advance). This modality is used to advance and/or replenish funds to a bank account as designated by the borrower. IFAD may place a limit on the amount to be advanced and/or replenished. Relevant details on this modality – which is Project specific – are agreed between the borrower and IFAD, and detailed in the Letter to the Borrower/recipient (LTB).

b) Procedure II: Reimbursement. This is applicable when eligible programme expenditures, reimbursable under the financing, have been pre-financed by the borrower. Such reimbursements are expected to be claimed no later than 90 calendar days from the date of payment by the borrower;

c) Procedure III: Direct Payment. This modality is used for eligible Project expenditures to be paid directly by IFAD, generally for large contracts, to suppliers, contractors, consultants or third parties, as authorized by the borrower;

d) Procedure IV: Special Commitment. This modality is used for eligible programme expenditures related to items imported by Project implementing agencies under a letter of credit requiring the issuance of guarantees for reimbursement to negotiating banks by IFAD.

15. Specific **disbursement** procedure should be referred to The Loan Disbursement Handbook for IFAD Directly Supervised Programmes – Version 1.01

16. **Budgeting.** As noted, the NPCO will be responsible for compilation of the consolidated annual work plan and budget. The different budget holding implementing agencies, the PAFOs and the DAFOs will be directly accountable for managing the funds for Project implementation. The flow of funds will follow **the** AWPB, which will identify programme activities, the relevant implementing agencies and their budget. On the basis of their involvement in the AWPB activities of a particular district, each Project implementing agency will receive an initial advance (based on the first 3 month of the AWPB) from the PA; this working fund will be replenished based on documented claims for reimbursement. Government counterpart funding, mainly to cover salaries, tax on fuel and small operating expenses, will be made available to the central, provincial or district agencies based on the AWPB**.**

17. **Accounting system:** An accounting software which can produce a consolidated financial statement (by components, category as per IFAD requirement) and WAs to be developed at NPCO. This is a **pre**-implementation activity and requires support from the IFAD country office, learning from other IFAD funded ongoing programmes.

18. The Excel-based accounting system to be used at PAFOs and DAFOs. A simple budget monitoring system will also be designed to facilitate monitoring of AWPB financial execution at provincial and district level. All entities involved in financial management will need to be strengthened through training, which will include basic accounting, financial reporting, budget monitoring and control/verification procedures.

19. **External audit**. In line with section 9.03 of the General Conditions for Agricultural Development Financing of IFAD, the consolidated financial statements of the Project including the use of the counterpart funds relating to the Project will be audited by Independent Auditors who shall be appointed **based** on a transparent and competitive selection process with an agreed ToR for the Project audit assignment, which should be subject to no-objection by IFAD. The auditors will audit the Project consolidated financial statements annually and audit reports shall be submitted to IFAD within six months of the end of the relevant financial reporting period. Following IFAD Guidelines on Programme Audits, the auditors shall provide separate opinions on the financial statements, SOEs and DA. In particular, the Auditors shall review withdrawals from the Programme Accounts at various levels on the basis of SOEs, and provide an independent opinion on whether such expenditures fully comply with expenditures eligible for IFAD disbursements. The auditors will also annually audit a random 10% selection of village held RDP investment accounts and 10% of contract farming co-financing agreements They shall also review the efficiency of the flow of the funds and the delivery of counterpart financing. IFAD, as part of its supervision functions, will also inspect Programme Accounts to ensure their adherence to acceptable standards. The auditor shall provide three separate opinions:

a) an opinion on the Project financial statements (PFSs);

b) an opinion on the use of the DA, including the initial advance, replenishments, interest that may accrue on the outstanding balances, and the year-end balances. In this the audit the auditors shall examine: (i) the eligibility of withdrawals from the DA during the period under review; (ii) the operation of the DA in accordance with the financing agreement and other instructions provided by IFAD; (iii) the adequacy of internal controls within the programme appropriate for this disbursement mechanism; and (iv) the use of

correct exchange rates to convert local currency expenditures to the denominated currency of the DA; and

c) an opinion on WAs, SOEs and their summary, used as the basis for submitting WAs. SOEs will be carefully compared for eligibility with relevant financial agreements and the disbursement letter, with reference to the programme design report for guidance when necessary. The auditor's opinion should deal with the adequacy of the procedures used by the programme for preparing SOEs and should include a statement that amounts withdrawn from the PA on the basis of such SOEs were used for the purposes intended under the agreement.

20. In addition, auditors shall provide a separate management letter addressing the adequacy of the **accounting** and internal control systems of the Project, including compliance with the IFAD Procurement Guidelines and such other matters as IFAD may request.

21. **Procurement.** Programme procurement will follow the national procedures to the extent that they are consistent with the IFAD Programme Procurement Guidelines. To the extent possible, the procurement of goods, civil works and consulting services shall be bulked into sizeable bids so as to permit optimal use of competitive bidding. Procurements shall be documented for ex-post review by IFAD and for audit **purposes**. Consolidated procurement plans covering a period of 18 months will be prepared as part of the AWPB and submitted to IFAD for "no objection" review, before commencement of procurement. It should provide information of goods, works and services disaggregated into different components, including: (i) description of goods, works or services to be procured; (ii) procurement method; (iii) estimated unit cost for each item; (iii) estimated cost for each procurement; and (iv) review procedure (post or prior review by IFAD. A procurement plan for the first 18 months will be available in the Programme Life File (Appendix 13)

22. In line with IFAD's Programme Procurement Guidelines, the following threshold recommended for the **programmes** are subject to prior review by IFAD:

a) Award of any contract for goods and work estimated to cost USD 60,000 or more;
b) Award of any contract for consulting services estimated to cost USD 30,000 or more.

23. All contracts, with or without prior IFAD approval, shall be listed in the Register of Contracts with the dates of approval. The Register shall be updated and submitted to the IFAD on a six-monthly basis.

24. **Contract Management** is very critical to smooth and successful implementation of the Project. NPCO should introduce a system to ensure the rights and duties of each party to contract are provided to ensure delivery on time, with correct quality and as per/within budget. For an effective contract administration, each contract should contain all pertinent deliverables, timing, deadlines, results-oriented reporting and expected outcomes, with measurable indicators. The template of the Contract Monitoring Form is available in the Procurement Handbook as well as in IFAD's Loan Disbursement Handbook. The contract monitoring form should be submitted to IFAD after each prior review contract has been signed, along with each WA for all contracts with ongoing payments.

25. **Financial Statements.** The financial statements of the Project for each fiscal year should consist of (i) yearly and cumulative statements of sources and application of funds, which should disclose separately IFAD funds, GOL funds, co-financier funds, private sector funds and beneficiaries funds and (ii) the Balance Sheet which should disclose bank and cash balances that agree with the statement of sources and application of funds, fixed assets and liabilities; (iii) Yearly and cumulative SOEs by WA and category of expenditures and (iv) statement of the DA. NPCO shall prepare and deliver to IFAD such financial statements within three months of the end of each Fiscal Year. The aforesaid statements, duly audited, should be delivered to IFAD within six months of the end of each Fiscal Year.

Appendix 8: Procurement

1. The SSFSNP will be responsible for procuring a range of goods, works and services as set out in the AWPBs. The procurement systems used will be guided by the Government's Procurement Manual[86] (2009), published by MoF with support from the World Bank financed Financial Management Capacity Building Project. Procurement guidelines to be set out in the SSFSNP Procurement Manual will provide a sound basis for procurement under this Project.

2. The SSFSNP will providing for TA and training in procurement to build the capacity of its procurement team and that of provincial and district government offices. While most procurement will initially take place at regional level through the NPCO, it is expected that, starting in Project Year 2 when the SSFSNP will commence financing KDFs, that district staff and communities will be sufficiently skilled for a district procurement threshold of USD 5,000 to be applied and for communities, under the guidance of contracted Service providers, to manage community force account construction for minor works. This threshold will necessitate the use of national shopping (USD 375 to USD 62,500) by districts, in compliance with procurement method rules. Any procurement above USD 5000 will continue to be handled by the NPCO. Limited capacity issues at district level will also be mitigated through IFAD's prior review of the first ten goods and works contracts and all consultants' services contracts throughout Project life, regardless of the amounts involved.

3. The thresholds for each method of procurement, applicable to all types of procurement will be as follows: up to LAK 3 million (USD 375) for direct purchase; from LAK 3 million (USD 375) up to LAK 500 million (USD 62,500) for national shopping; from LAK 500 million (USD 62,500) up to LAK 5 billion (about USD 625,000) for NCB for goods; and from LAK 500 million (USD 62,500) up to LAK 25 billion (about USD 3,725 million) for NCB for works. ICB, although not envisioned, will take place for goods beyond LAK 5 billion (USD 625,000) and works beyond LAK 25 billion (USD 3.725 million). All service providers will be hired through renewable, performance-based contracts.

GOODS AND SERVICES TO BE PROCURED

4. The GAFSP grant will fund most goods, works and services under the SSFSNP. Table 1 below breaks down procurement under the Project by type of expenditure (procurement account) and procurement method.

[86] 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, would be used).

Table 1 - Procurement under the SSFSNP, including contingencies (USD 000)

Lao PDR
GAFSP - Design Mission Draft

Procurement Arrangements	ɛnt Method (LAK Million)					Procurement Method (US$ '000)				
	National Competitive Bidding	Consulting Services: QCBS	Local Shopping	N.B.F.	Total	National Competitive Bidding	Consulting Services: QCBS	Local Shopping	N.B.F.	Total
Civil works	101,337	-	-	-	101,337	12,597	-	-	-	12,597
Vehicles	7,200	-	-	-	7,200	838	-	-	-	838
Equipment	4,114	-	-	-	4,114	477	-	-	-	477
Agri Inputs	-	-	5,481	9,364	14,845	-	-	596	1,044	1,640
Matching Grant	-	-	59,120	-	59,120	-	-	7,390	-	7,390
Technical Assistance	-	53,415	-	-	53,415	-	6,098	-	-	6,098
Training & capacity building	-	44,855	-	-	44,855	-	4,969	-	-	4,969
Salary & Allowances	-	-	-	28,161	28,161	-	-	-	3,078	3,078
Other operating costs	-	-	15,470	-	15,470	-	-	1,700	-	1,700
Unallocated	-	-	-	-		-	-	-	-	
Total	112,651	98,270	80,071	37,525	328,517	13,911	11,067	9,686	4,122	38,787

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

Table 2 - Annual Expenditure by SSFSNP Procurement Account, Including Contingencies

	Totals Including Contingencies (US$ Million)						
	16/17	17/18	18/19	19/20	20/21	21/22	Total
Civil works	1,243	2,474	3,702	4,950	-	-	12,370
Vehicles	790	299	-	-	-	-	1,089
Equipment	237	160	37	43	-	-	477
Agri Inputs	88	279	366	530	114	91	1,469
Matching Grant	559	1,218	1,877	2,986	300	100	7,040
Technical Assistance	892	1,149	1,506	1,713	491	221	5,971
Training & capacity building	881	840	765	1,260	598	521	4,865
Salary & Allowances	304	465	551	641	602	516	3,078
Other operating costs	309	432	440	410	418	427	2,435
Unallocated	-	-	-	-	-	-	-
Total	5,303	7,316	9,244	12,533	2,524	1,876	38,794

	Totals Including Contingencies (LAK Million)						
	16/17	17/18	18/19	19/20	20/21	21/22	Total
Civil works	9,966	19,845	29,712	39,781	-	-	99,304
Vehicles	6,669	2,594	-	-	-	-	9,263
Equipment	1,999	1,390	332	393	-	-	4,114
Agri Inputs	743	2,423	3,271	4,879	1,084	888	13,289
Matching Grant	4,472	9,744	15,016	23,888	2,400	800	56,320
Technical Assistance	7,464	9,798	13,091	15,129	4,653	2,157	52,292
Training & capacity building	7,430	7,297	6,839	11,594	5,668	5,082	43,910
Salary & Allowances	2,563	4,038	4,930	5,901	5,701	5,028	28,161
Other operating costs	2,605	3,748	3,936	3,774	3,963	4,161	22,187
Unallocated	-	-	-	-	-	-	-
Total	43,912	60,878	77,126	105,339	23,469	18,117	328,840

6. **Civil Works**: These procurements relate mainly to new or upgraded TSCs, village irrigation development, upgraded village roads, renewable energy technologies, ecosystems stabilization infrastructure or other small productive infrastructure. Dependent on the scale and complexity of the civil works, procurement will either be implemented through community force account construction, or for larger investments, 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 and 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[87], with the labour element, which will primarily be contribution in-kind, supervised by community groups, overseen by the contracted Service provider and/or the district offices of the relevant department.

7. VDP community-based management teams will be trained to enable them to supervise and monitor the construction of funded infrastructures (subcontracted sub-projects) or construct the infrastructure themselves (community-force account). The training will focus on Project processes and include technical trainings. This team will also receive training on community ownership and empowerment as well as training related to long-term operation and maintenance of infrastructures. Under a community force account, the community will implement the sub-project using its own resources (skilled and unskilled labour, materials, equipment) and may subcontract part of the sub-project to contractors or suppliers which may be procured following the aforementioned procedures. This approach is community driven and cost effective (inputs can be provided by the community at below-market costs), and will injects funds into the community (e.g., through the payment of wages and materials). The contract price signed with communities will be within local market rates or established estimates as indicated in a Unit Cost Database. Community based force account procurement method, threshold values, and steps of procurement will be defined in a Community Procurement Manual as part of the PIM.

8. **Vehicles and Equipment:** This includes vehicles for Project management and forage development teams, motor cycles for field staff, office and computing equipment, financial management software, GIS equipment and software, veterinary equipment for CAHWs 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[88] 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 and school garden kits, etc. will be procured using local shopping, following established rules and procedures which require asking for at least three bids. Some forage seed will be purchased from farmers through force-account. The limits for national shopping are from LAK 3 million (about USD 375) to LAK 500 million (USD 62,500). Generally these items will be procured either at the district, or province level, following standard Government procedures.

10. **Technical Assistance:** The procurement of these services, which will be managed by WFP as per GAFSP implementation arrangements, will be done in accordance with WFP procurement

[87] Set out in Decrees 03/PM and 063/MOF of 2004.

[88] Because this programme would be financed by a grant, not a loan, goods imported for use by the programme (with the exception of fuel) enjoy tax free status.

procedures as laid out in an .UTF agreement signed with GoL The compensation of all Project international 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).

Procurement Plan for First 18 month

Bid Ref.	Description	Financier	Main Implementing Agency	IFAD Loan/Grant Category	Proposed no. of packages	Total allocated amount, USD (000)	Allocated amount for 18 months, USD (000)	Procurement selection method
Table 1. Public services strengthened						**38,795**	**9,511.74**	
	A. Building government staff capacities and procedures for participatory planning, monitoring and learning							
1.1.1	International TA			TA		106.3	27.72	QCPS
1.1.2	National TA			TA		54.1	17.11	QCBS
1.1.3	Data management software	GAFSP grant	PCO	TA		22.9	43.82	QCBS
	Computing hardware	GAFSP grant	PCO	TA		53.6	5.13	QCBS
1.1.4	Training for MAF, PAFO staff in M&E and MIS systems implementation	GAFSP grant	PCO	Trg.		15.2	18.13	Other
.1.5	MAF/PAFO staff training in human nutrition and nutritious food production	GAFSP grant	PCO	Trg.		37.0	22.66	Other
1.1.6	PAFO and DAFO staff training in community driven development	GAFSP grant	PCO	Trg.		37.4	22.66	Other
1.1.7	PAFO and DAFO staff training in community based climate change adaptive planning /b					37.4	22.66	
1.1.8	PAFO and DAFO staff training in gender and development /c	GAFSP grant	PCO	Trg.		18.1	22.66	Other
1.1.9	PAFO and DAFO staff training in ethnic people self determination and culture /d	GAFSP grant	PCO	Trg.		18.1	30.80	Other
1.1.10	District level participatory M&E training	GAFSP grant	PCO	Trg.		70.4	30.80	Other
1.1.11	District/kum ban staff training in human nutrition and nutritious food production	GAFSP grant	PCO	Trg.		70.4	20.53	Other
1.1.12	Training of the District Socio-economic Development Coordination Committee /e	GAFSP grant	PCO	Trg.		50.7	4.62	Other
1.1.13	Contracted studies of Project outcomes and impacts /f	GAFSP grant	PCO	Studies		28.6	322.00	QCBS
	B. Strengthening supporting services and technologies							
	1. DAEC upskilled							
1.2.1	Chief Technical Adviser /g	GAFSP grant	PCO	TA		1,002.5	392.01	QCBS
1.2.2	Unspecified International TA /h	GAFSP grant	PCO	TA		177.0	86.97	QCBS
1.2.3	Gender adviser	GAFSP grant	PCO	TA		82.4	17.13	QCBS
1.2.4	Household Nutrition coordinator	GAFSP grant	PCO	TA		82.4	17.13	QCBS
1.2.5	Agribusiness development coordinator	GAFSP grant	PCO	TA		82.4	17.13	QCBS
1.2.6	Unspecified National TA /i	GAFSP grant	PCO	TA		36.6	15.36	QCBS
	2. LWU upskilled							
1.2.6.	Gender Action Learning Systems (GALS) training /j	GAFSP grant	PCO	Trg.		12.7	6.23	Other
1.2.7	GALS training at district level /k	GAFSP grant	PCO	Trg.		34.3	25.67	Other
1.2.8	Gender analysis of farming systems /l	GAFSP grant	PCO	Studies		17.0	17.00	Other
1.3.1	**3. Technical Advisory Group (TAG) /m**	GAFSP grant	DAEC	W'shop		52.7	9.16	Other

	4. Forage development							
1.4.1	International TA	GAFSP grant	PCO	TA		35.1	27.15	QCBS
1.4.2	National forage systems specialist	GAFSP grant	PCO	TA		46.0	13.86	QCBS
1.4.3	b. Development of forage production extension information	GAFSP grant	PCO	Studies		25.1	21.04	Other
1.4.4	Initial forage seed procurement	GAFSP grant	PCO	Equip&Goods		73.2	49.64	Int. Shopping
1.4.5	Seed procurement from participating farmers /n	GAFSP grant	PCO	Equip&Goods		289.8	34.68	Local shopping
1.4.6	Contract production	GAFSP grant	PCO	Equip&Goods		16.5	2.86	Local shopping
1.4.7	Distribution	GAFSP grant	PCO	Equip&Goods		1.6	0.06	Other
1.4.8	Regional study tours	GAFSP grant	PCO	Tour		22.9	17.11	Other
1.4.9	National stakeholder workshop for start-up & review	GAFSP grant	PCO	W'shop		35.7	8.56	Other
1.4.10	Prov/district workshops for local start-up/ review	GAFSP grant	PCO	W'shop		32.8	9.16	Other
1.4.12	Exchange visits field technicians /o	GAFSP grant	PCO	Tour		28.3	8.21	Other
1.4.13	Exchange visits farmer reps	GAFSP grant	PCO	Tour		32.9	5.72	Other
1.4.14	Miscellaneous field equipment for TSC staff	GAFSP grant	PCO	Equip&Goods		20.7	13.73	Local shopping
1.4.15	Provincial vehicles 4WD pick-up	GAFSP grant	PCO	Vehicle		144.2	144.23	NCB
1.4.17	Seed scarification and fumigation	GAFSP grant	PCO	Services		8.9	0.46	Local shopping
1.4.18	Seed storage	GAFSP grant	PCO	Services		16.3	2.00	Local shopping
1.4.19	Seed packaging and labelling	GAFSP grant	PCO	Services		11.4	0.87	Local shopping
1.4.20	Seed distribution	GAFSP grant	PCO	Services		9.6	1.14	Local shopping
	5. TSC development /p		PCO					
1.5.1	Upgrading of TSC facilities /q	GAFSP grant	PCO	CW		341.7	111.21	NCB
1.5.2	National TA (farm business management)	GAFSP grant	PCO	TA		42.0	24.60	QCBS
1.5.3	DAFO/TSC Farm and business management training	GAFSP grant	PCO	Trg.		32.7	13.69	Other
1.5.4	TSC staff refresher technical training	GAFSP grant	PCO	Trg.		91.6	21.50	Other
1.5.5	Motorcycle	GAFSP grant	PCO	Vehicle		42.1	42.12	NCB
	6. Technology testing and transfer							
1.6.1	Pilot low cost drip irrigation demonstrations /r	GAFSP grant	PCO	Equip&Goods		45.4	8.88	Other
1.6.2	FFS / farmer-to-farmer national extension specialist TA	GAFSP grant	PCO	Trg.		36.4	13.86	QCBS
1.6.3	FFS management training for local NGO & TSC staff and farmer facilitators	GAFSP grant	PCO	Trg.		23.1	13.69	Other
1.6.4	Farmer-to-farmer extension training for NGO & TSC staff and national facilitators /s	GAFSP grant	PCO	Trg.		27.9	13.69	Other
1.6.5	FFS field school initiatives /t	GAFSP grant	PCO	Trg.		90.2	8.67	Other
1.6.6	TSC 3-year kum ban innovation contracts	GAFSP grant	PCO	Services		474.1	108.12	Other
1.6.7	Annual participatory agriculture research workshop /u	GAFSP grant	PCO	Services		35.7	8.56	Other
1.6.8	NAFRI Participatory Action Research /v	GAFSP grant	PCO	Services		217.5	11.56	Other

Table 2. Community-driven nutrition-sensitive agriculture interventions established								
2.1.1	**A. WFP Component 2 administration costs**	GAFSP grant	WFP	TA		162.5	38.89	WFP Proc. Procedures
	B. Planning for improved nutritional outcomes							WFP Proc. Procedures
2.2.1	District monitoring of NNSPA interventions /a	GAFSP grant	WFP	Services		118.5	20.60	WFP Proc. Procedures
2.2.2	District convergence planning /b	GAFSP grant	WFP	Services		94.8	16.48	WFP Proc. Procedures
2.2.3	District-to-district experiential learning /c	GAFSP grant	WFP	Trg.		94.8	16.48	WFP Proc. Procedures
2.2.4	Village-to-village experiental learning /d	GAFSP grant	WFP	Trg.		288.7	22.94	WFP Proc. Procedures
2.2.5	Review, existing methodologies in Laos for village level participatory planning /e	GAFSP grant	WFP	TA		3.4	3.40	WFP Proc. Procedures
2.2.6	Preparation of SSFSNP Project participatory planning village implementation manual	GAFSP grant	WFP	TA		5.9	6.12	WFP Proc. Procedures
2.2.7	Project area rural institutional assessment and mapping	GAFSP grant	WFP	TA		5.9	6.12	WFP Proc. Procedures
2.2.8	Workshops on integration of village level planning into district planning systems /f	GAFSP grant	WFP	Trg.		18.1	18.13	WFP Proc. Procedures
2.2.9	Updating of participatory village planning methodology	GAFSP grant	WFP	TA		11.8	0.00	WFP Proc. Procedures
2.2.10	District/kum ban staff training in participatory village level investment planning /g	GAFSP grant	WFP	Trg.		112.7	41.07	WFP Proc. Procedures
2.2.11	District/kum ban staff training in participatory forest and land use planning /h	GAFSP grant	WFP	Trg.		112.7	41.07	WFP Proc. Procedures
2.2.13	District/kum ban staff training in community-based forest management /i	GAFSP grant	WFP	Trg.		84.5	30.80	WFP Proc. Procedures
2.2.14	Field visits for MAF and MoH management	GAFSP grant	WFP	Tour		24.1	2.31	WFP Proc. Procedures
2,2,15	National key stakeholder progress review & evaluation workshops	GAFSP grant	WFP	W'shop		35.7	8.56	WFP Proc. Procedures
2,2,16	Raising villager awareness of participatory planning	GAFSP grant	WFP	Trg.		235.8	45.78	WFP Proc. Procedures
2,2,17	Village and kum ban level participatory plan development and initial implementation /k	GAFSP grant	WFP	Services		754.7	146.50	WFP Proc. Procedures
2.2.18	Annual village work programme and budget review /l	GAFSP grant	WFP	Services		1082.7	86.01	WFP Proc. Procedures
2.2.19	District VDP decision meeting	GAFSP grant	WFP	W'shop		79.0	13.73	WFP Proc. Procedures
	C. Women-led improvement in household nutrition							
2.3.1	Operating costs for supporting DHO teams	GAFSP grant	WFP	Operating		197.5	51.67	WFP Proc. Procedures
2.3.2	Training/refresher course costs for village facilitators /m	GAFSP grant	WFP	Trg.		235.8	68.90	WFP Proc. Procedures
2.3.3	Operational cost for farmer nutrition schools /n	GAFSP grant	WFP	Operating		216.5	27.61	WFP Proc. Procedures
2.3.4	Village facilitator annual incentive payments	GAFSP grant	WFP	Services		324.8	41.41	WFP Proc. Procedures
2.3.5	Provincial consultants for gender / nutrition behavioural change /p	GAFSP grant	WFP	TA		51.0	16.43	WFP Proc. Procedures
2.3.6	Adaptation of NBBC package to meet provincial specificities /q	GAFSP grant	WFP	TA		56.6	28.32	WFP Proc. Procedures
2.3.7	Training of DHO and DAFO Staff /r	GAFSP grant	WFP	Trg.		11.7	5.13	WFP Proc. Procedures
2.3.8	Production of village facilitation tools /s	GAFSP grant	WFP	TA		17.7	2.89	WFP Proc. Procedures
2.3.9	Audio-visual equipment for Oudomxai DHO	GAFSP grant	WFP	Equip&Goods		2.3	1.16	WFP Proc. Procedures
2.3.10	Audio-visual equipment for Oudomxai FNS	GAFSP grant	WFP	Equip&Goods		70.7	11.56	WFP Proc. Procedures
2.3.11	SSFSNP northern region conference on SBCC	GAFSP grant	WFP	W'shop		35.7	8.56	WFP Proc. Procedures
2.3.12	Operating costs for supporting DHO teams	GAFSP grant	WFP	Operating		17.2	4.11	WFP Proc. Procedures
2.3.13	Group management training of LWU trainers /t	GAFSP grant	WFP	Trg.		84.5	30.80	WFP Proc. Procedures
2.3.14	GALS training of LWU trainers /u	GAFSP grant	WFP	Trg.		70.4	25.67	WFP Proc. Procedures
2.3.15	Operating cost for Lao Women's Union /v	GAFSP grant	WFP	Operating		189.6	32.96	WFP Proc. Procedures
2.3.16	Training of village women leaders /w	GAFSP grant	WFP	Trg.		167.9	25.02	WFP Proc. Procedures
2.3.17	Female CAHW training /x	GAFSP grant	WFP	Trg.		112.7	41.07	WFP Proc. Procedures
2.3.18	CAHW animal health kits	GAFSP grant	WFP	Equip&Goods		94.3	18.31	WFP Proc. Procedures
2.3.19	Operating costs for supporting DAFO teams	GAFSP grant	WFP	Operating		158.0	27.47	WFP Proc. Procedures

Table 3. Sustainable and inclusive market-driven partnerships established								
	A. Profitable investment in nutrient-sensitive agriculture							
	1. Strategic Investment Planning							
3.1.1	Strategic Investment Plan preparation /a	GAFSP grant	PCO	TA		185.4	206.04	QCBS
3.1.2	Analysis of infant supplementary food investment opportunities	GAFSP grant	PCO	TA		25.8	25.76	QCBS
	2. Village development fund							
3.2.1	Infrastructure for Nutrition-rich agriculture	GAFSP grant	KMT	Matching Grant		12,000.00	2,400.00	Matching Grant
3.2.2	Design and supervision /b	GAFSP grant	UN Habitat	Services		1,320.00	264.00	Force account
3.3.3	District overhead costs /c	GAFSP grant	District	Services		240.00	48.00	Force account
3.3.4	DAFO and TSC staff technical training /d	GAFSP grant	DoH	Trg.		165.10	34.34	Other
3.3.5	Women-led household nutrition food technical packages /e	GAFSP grant	KMT	Matching Grant		1,750.00	400.00	Matching Grant
3.3.6	Farmer group/associatoion investment grants /f	GAFSP/Ben	KMT	Matching Grant		3,900.00	720.00	Matching Grant
3.3.7	Kum ban and district farmer cooperative development	GAFSP/Ben	KMT	Matching Grant		250.00	0.00	Matching Grant
3.3.8	Land use right registration of farmer group members (Project cont. (50%)) /g	GAFSP grant	District	Services		460.60	93.40	Force account
3.3.9	Land use right registration of farmer group members (Govt. cont. (50%)) /h	Govt.	District	Services		460.60	93.40	Force account
3.3.10	GIS support to CBFM implementation and sustainable agriculture /i	GAFSP grant	DAEC	Studies		120.30	11.56	Other
	B. Farmers linked to markets							
	1. Contract farming review							
3.4.1	International TA (FAO)	GAFSP grant	PCO	TA		43.40	48.79	QCBS
3.4.2	National TA /j	GAFSP grant	PCO	TA		29.70	24.60	QCBS
	2. Public-private collaboration							
3.5.1	Public - private collaboration investments /k	GAFSP/Enterprise	PCO	Matching Grant		900.00	50.00	Matching Grant
Table 4. Project management								
	I. Investment Costs							
	A. Vehicles							
	MAF PMO 4WD stationwagon	GAFSP grant	PCO	Vehicle		46.4	46.4	NCB
	DAEC technical team 4WD stationwagon	GAFSP grant	PCO	Vehicle		36.1	46.4	NCB
	DAEC technical support team 4WD pick-up	GAFSP grant	PCO	Vehicle		108.2	72.1	NCB
	DAEC Motorcycles	GAFSP grant	PCO	Vehicle		6.2	6.2	NCB
	Provincial field office 4WD pick-up	GAFSP grant	PCO	Vehicle		144.2	144.2	NCB
	Provincial field office motorcycle	GAFSP grant	PCO	Vehicle		13.4	12.4	NCB
	DAFO 4WD Pick-up	GAFSP grant	PCO	Vehicle		437.0	437.0	NCB
	DAFO motorbike	GAFSP grant	PCO	Vehicle		74.9	56.0	NCB
	DHO motorbike	GAFSP grant	PCO	Vehicle		37.5	28.0	NCB
	B. Office equipment							
	MAF HQ level	GAFSP grant	PCO	Equip&Goods		22.7	22.7	NCB
	DAEC technical team	GAFSP grant	PCO	Equip&Goods		39.7	39.7	NCB
	Province level	GAFSP grant	PCO	Equip&Goods		6.8	6.8	NCB
	District level	GAFSP grant	PCO	Equip&Goods		20.4	20.4	NCB
	C. Upgrading office software							
	1. Upgrading accounting	GAFSP grant	PCO	Services		22.7	22.7	QCBS
	2. Upgrading PROMIS	GAFSP grant	PCO	Services		148.9	108.4	QCBS
	D. Technical Assistance, Studies and Workshops							
	Baseline survey	GAFSP grant	PCO	Survey		34.0	34.0	QCBS
	Environment and Social Management Plan	GAFSP grant	PCO	Plan		22.7	22.7	QCBS
	PIM Preparation	GAFSP grant	PCO	TA		9.1	9.1	QCBS
	Startup workshop	GAFSP grant	PCO	W'shop		12.5	8.5	Other
	Annual Review and Planning Workshop	GAFSP grant	PCO	W'shop		64.3	6.8	Other
	Knowledge Management-Publications	GAFSP grant	PCO	Studies		30.1	2.9	Other
	HQ staff training /a	GAFSP grant	PCO	Trg.		21.1	9.1	Other
	Ad hoc Studies and Assistance	GAFSP grant	PCO	Studies		24.1	2.3	Other
	Mid-term review	GAFSP grant	PCO	Survey		23.6	0.0	QCBS
	Final impact survey	GAFSP grant	PCO	Survey		31.3	0.0	QCBS
	II. Recurrent Costs	GAFSP grant						
	A. Salaries	GAFSP/Govt.						
	1. MAF HQ level	GAFSP/Govt.	PCO	Operating		545.9	130.7	
	2. DAEC technical support team	GAFSP/Govt.	PCO	Operating		222.3	53.2	Force Account
	3. Provincial level	GAFSP/Govt.	PAFO	Operating		329.1	78.8	Force Account
	4. District level	GAFSP/Govt.	DAFO	Operating		1981.2	273.6	Force Account
	B. DSA (local travel)	GAFSP/Govt.	DAFO	Operating		652.5	107.1	Force Account
	C. Operation and maintenance	GAFSP/Govt.	PCO	Operating		1123.4	128.2	Force Account
	D. Other operating costs							
	1. Sub-comittee for nutrition-rich upland agriculture /o	GAFSP/Govt.	PCO	Operating		25.0	6.0	Other
	2. HQ and DAEC Level	GAFSP/Govt.	PCO/DAEC	Operating		493.2	113.8	Shopping
	3. Provincial level	GAFSP/Govt.	PAFO	Operating		22.9	5.5	Shopping
	4. District level	GAFSP/Govt.	DAFO	Operating		118.5	20.6	Shopping

Appendix 9: Project cost and financing

Main assumptions

1. The Project costs detailed below are provisional and will be revised during project final design when additional funding from the GoL, the private sector and potential co-financiers will be sought.

2. **Project duration.** The duration of the SSFSNP is six years with a Project start in mid-2016.

3. **Prices and costs.** Costs are inputted in US dollars with inflation adjustments made for the differing cost bases. Data were collected by the consultants in the field and with partners. September 2015 prices have been applied.

4. **Inflation.** Local inflation reached 4.26% in 2012 and subsequently increased to 6.37% in 2013. Inflationary pressures eased steadily in 2014 owing to better food supplies and lower fuel prices, bringing the average rate in 2014 to 4.2%, the lowest in 5 years. Lower oil prices and slowing economic growth are forecast to trim year-average inflation to 3.5% for the 2015 year. In 2016, inflation is forecast to increase to 4.0% as domestic demand picks up and the prices of imported oil and food trend higher.[89] This cost estimate has therefore adopted a 5% per annum rate that is closer to the long term average than the current rate. For the purposes of cost estimation the inflation rates adopted are shown in Table 1 below.

Table 1 - Inflation rates (local and foreign)

Components	2016-17	2017-18	2018-19	2019-20	2021-22	2022-23
Foreign inflation	2%	2%	2%	2%	2%	2%
Local inflation	5%	5%	5%	5%	5%	5%

5. **Exchange rate**. The exchange rate of LAK 8,000/USD is assumed.

6. The Project costs are presented in both LAK and USD. Conversions from current USD values into Laotian Kip use constant purchasing power exchange rates

7. **Contingencies, taxes and duties.** Physical and contingencies as well as taxes, duties and share of foreign exchange across the expenditure accounts are presented in Table 2.

Table 2 - Physical contingencies, foreign exchange and taxes/duties per SSFSNP expenditure accounts

Expenditure accounts	Physical contingencies	Foreign exchange	Duties/taxes
Civil works (grants)	0%	25%	15%
Vehicles	0%	50%	40%
Equipment	10%	70%	10%
Agricultural inputs	10%	30%	10%
Matching grants	-	40%	-
Trainings and capacity building	10%	20%	-
Technical assistance	-	90%	-
Salaries and allowances	0%	-	-
Other operating costs	10%	50%	-

8. **Total cost.** The total cost for the SSFSNP is estimated at USD 38.8 million (LAK 328.4 billion) including contingencies. The total base costs are USD 36.6 million (LAK 298.0 billion). Physical and

[89] ADB (2015), Asian development outlook 2015. Financing Asia's future growth. Mandaluyong City, Philippines: Asian Development Bank, 2015.

price contingencies account for USD 1.2 million and USD 1.0 million respectively (3.3% and 2.6% of the total base costs). Investment costs are estimated at USD 31.6 million representing 86% of total cost. The detailed breakdown of the base costs by component is shown in Table 3.

Table 3 - Component cost summary by outcomes, SSFSNP

	(LAK Million)			(US$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
1. Strengthened public services	20,199	13,435	33,634	2,430	1,616	4,046	40	11
2. Community-driven, nutrition-sensitive agriculture interventions established	34,005	4,881	38,886	4,090	587	4,677	13	13
3. Sustainable and inclusive market-driven partnerships established	123,691	48,692	172,383	15,425	6,072	21,497	28	59
4. Project management	38,712	14,358	53,071	4,656	1,727	6,383	27	17
Total BASELINE COSTS	216,608	81,366	297,973	26,601	10,002	36,603	27	100
Physical Contingencies	7,844	2,089	9,933	948	251	1,199	21	3
Price Contingencies	16,074	4,502	20,576	742	209	951	22	3
Total PROJECT COSTS	240,526	87,957	328,483	28,291	10,462	38,753	27	106

9. **Component cost by outcome.** The project comprises four cost components (see Table 3). The first component, Outcome 1: "Strengthened public services" is estimated at USD 4.0 million (LAK 33.6 billion) representing 11% of the base costs. The second component, Outcome 2: "*Community-driven agriculture-based nutrition interventions established*" is estimated at USD 4.7 million (LAK 38.9 billion) representing 13% of the base costs. Outcome 3: "*Sustainable and inclusive market-driven partnerships established"* is estimated at USD 21.5 million (LAK 172.4 billion) representing 59% of the base costs The project management component is estimated at USD 6.4 million (LAK 53.1 billion) representing 17% of the base costs.

10. **Cost by expenditure account.** The SSFSNP component cost by expenditure accounts plan is shown in Table 4.

Table 4 - Component costs by expenditure account, SSFSNP

	(LAK Million)			(US$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs								
A. Civil works	1,751	584	2,334	211	70	281	25	1
B. Vehicles	4,458	4,458	8,917	536	536	1,073	50	3
C. Equipment	1,055	2,461	3,515	127	296	423	70	1
D. Agri Inputs	7,928	2,471	10,399	954	297	1,251	24	3
E. Matching grant	106,344	45,576	151,920	13,293	5,697	18,990	30	52
F. Capacity building and learning	28,056	7,014	35,070	3,375	844	4,218	20	12
G. National Technical Assistance	33,100	-	33,100	4,027	-	4,027	-	11
H. International Technical Assistance	1,093	9,841	10,934	132	1,184	1,315	90	4
Total Investment Costs	183,785	72,404	256,190	22,653	8,924	31,577	28	86
II. Recurrent Costs								
A. Salary & allowances	23,861	-	23,861	2,870	-	2,870	-	8
B. Other operating costs	8,961	8,961	17,923	1,078	1,078	2,156	50	6
Total Recurrent Costs	32,822	8,961	41,784	3,948	1,078	5,026	21	14
Total BASELINE COSTS	216,608	81,366	297,973	26,601	10,002	36,603	27	100
Physical Contingencies	7,844	2,089	9,933	948	251	1,199	21	3
Price Contingencies	16,074	4,502	20,576	742	209	951	22	3
Total PROJECT COSTS	240,526	87,957	328,483	28,291	10,462	38,753	27	106

Financing plan

11. Component **cost by financier**. GASFP will provide a grant of USD 30 million (77.4%). Local private enterprise is expected to contribute USD 0.5 million (1.1%). Village beneficiary contribution will be USD 2.9 million (7.5%). The Lao PDR contribution is estimated at USD 5.4 million (13.9%). The Government contribution covers taxes, duties and some infrastructure, land registration, project management staff and operating costs. The SSFSNP financing plan is shown in Table 5.

Table 5 – Financing plan, SSFSNP

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
Civil works	280	86.3	-	-	-	-	-	-	44	13.7	324	0.8	81	199	44
Vehicles	1,089	100.0	-	-	-	-	-	-	0	-	1,089	2.8	545	545	-
Equipment	477	100.0	-	-	-	-	-	-	0	-	477	1.2	334	143	-
Agri Inputs	927	63.7	-	-	-	-	-	-	529	36.3	1,457	3.8	345	997	115
Matching Grant	13,857	73.0	1,800	9.5	434	2.3	2,900	15.3	-0	-	18,990	49.0	5,697	13,293	-
National technical assistance	3,950	85.7	-	-	-	-	-	-	658	14.3	4,608	11.9	-	3,950	658
International technical assistance	1,364	100.0	-	-	-	-	-	-	0	-	1,364	3.5	1,228	136	-
Capacity building and learning	4,864	100.0	-	-	-	-	-	-	0	-	4,864	12.5	973	3,891	-
Salary & allowances	1,273	41.6	-	-	-	-	-	-	1,787	58.4	3,060	7.9	-	3,060	-
Other operating costs	1,919	76.1	-	-	-	-	-	-	602	23.9	2,521	6.5	1,260	1,260	-
Total PROJECT COSTS	30,000	77.4	1,800	4.6	434	1.1	2,900	7.5	3,620	9.3	38,753	100.0	10,462	27,474	817

Appendix 9 – Annexes

Cost table 1: Detailed cost table – Outcome 1 – Totals including Contingencies (USD'000)

Cost table 2: Detailed cost table – Outcome 2 – Totals including Contingencies (USD'000)

Cost table 3: Detailed cost table – Outcome 3 – Totals including Contingencies (USD'000)

Cost table 4: Detailed cost table – Project management – Totals including Contingencies (USD'000)

Cost table 5: Components Project Cost Summary

Cost table 6: Expenditure Accounts Project Cost Summary

Cost table 7: Expenditure Accounts by Components – Totals including Contingencies (USD'000)

Cost table 8: Expenditure Accounts by Components – Totals including Contingencies (LAK Million)

Cost table 9: Project Components by Year -- Totals Including Contingencies (USD'000)

Cost table 10: Project Components by Year -- Investment/Recurrent Costs (USD'000)

Cost table 11: Expenditure Accounts by Year -- Totals Including Contingencies (USD'000)

Cost table 12: Expenditure Accounts Breakdown (USD'000)

Cost table 13: Components by Financiers (USD'000)

Cost table 14: Disbursement Accounts by Financiers (USD'000)

Cost table 15: Expenditure Accounts by Financiers (USD'000)

Cost table 16: Local/Foreign/Taxes by Financiers (USD'000)

Cost table 17: Disbursements by Semesters and Government Cash Flow (USD'000)

Cost table 18: IFAD Project cost breakdown

Cost table 19: WFP project cost breakdown

Cost table 1: Detailed cost table – Public Services Strengthened

	Unit	Quantities							Unit Cost	Totals Including Contingencies (US$ '000)						
		16/17	17/18	18/19	19/20	20/21	21/22	Total	(US$)	16/17	17/18	18/19	19/20	20/21	21/22	Total
I. Investment Costs																
A. Building government staff capacities and procedures for participatory planning, monitoring and learning																
International TA	pers-month	0.8	2.4	1.6	-	-	-	4.8	21,000	17.3	53.0	36.0	-	-	-	106.3
National TA	pers-month	6	6	6	-	-	-	18	2,600	17.7	18.0	18.4	-	-	-	54.1
Data management software	lps									11.3	11.6	-	-	-	-	22.9
Computing hardware	lps									34.0	19.7	-	-	-	-	53.6
Training for MAF, PAFO staff in M&E and MIS systems implementation	course	1	1	1	1	-	-	4	3,250	3.7	3.8	3.8	3.9	-	-	15.2
MAF/PAFO staff training in human nutrition and nutritious food production	course	4	-	4	-	-	-	8	4,000	18.1	-	18.9	-	-	-	37.0
PAFO and DAFO staff training in community driven development /a	course	4	-	-	4	-	-	8	4,000	18.1	-	-	19.2	-	-	37.4
PAFO and DAFO staff training in community based climate change adaptive planning /b	course	4	-	-	4	-	-	8	4,000	18.1	-	-	19.2	-	-	37.4
PAFO and DAFO staff training in gender and development /c	course	4	-	-	-	-	-	4	4,000	18.1	-	-	-	-	-	18.1
PAFO and DAFO staff training in ethnic people self determination and culture /d	course	4	-	-	-	-	-	4	4,000	18.1	-	-	-	-	-	18.1
District level participatory M&E training	course	6	6	-	12	-	-	24	2,500	17.0	17.3	-	36.1	-	-	70.4
District/kum ban staff training in human nutrition and nutritious food production	course	6	6	-	12	-	-	24	2,500	17.0	17.3	-	36.1	-	-	70.4
Training of the District Socio-economic Development Coordination Committee /e	district	6	6	-	12	-	-	24	1,800	12.2	12.5	-	26.0	-	-	50.7
Contracted studies of Project outcomes and impacts /f	lps									-	6.9	7.1	7.2	7.4	-	28.6
Subtotal Building government staff capacities and procedures for participatory planning, monitoring and learning										220.9	160.1	84.2	147.7	7.4	-	620.2
B. Strengthening supporting services and technologies																
1. DAEC upskilled																
a. International Technical Assiatance																
Chief Technical Adviser /g	pers-month	12	12	12	6	3	-	45	21,000	259.6	264.8	270.1	137.8	70.3	-	1,002.5
Unspecified International TA /h	pers-month	3	2	2	1	-	-	8	21,000	64.9	44.1	45.0	23.0	-	-	177.0
Subtotal International Technical Assiatance										324.5	308.9	315.1	160.7	70.3	-	1,179.5
b. National technical assistance																
Gender adviser	pers-month	9	12	12	12	12	12	69	1,000	10.2	13.9	14.1	14.4	14.7	15.0	82.4
Household Nutrition coordinator	pers-month	9	12	12	12	12	12	69	1,000	10.2	13.9	14.1	14.4	14.7	15.0	82.4
Agribusiness development coordinator	pers-month	9	12	12	12	12	12	69	1,000	10.2	13.9	14.1	14.4	14.7	15.0	82.4
Unspecified National TA /i	pers-month	4	2	2	2	2	-	12	2,600	11.8	6.0	6.1	6.3	6.4	-	36.6
Subtotal National technical assistance										42.4	47.6	48.6	49.5	50.5	45.0	283.7
Subtotal DAEC upskilled										366.9	356.6	363.7	210.3	120.8	45.0	1,463.2
2. LWU upskilled																
Gender Action Learning Systems (GALS) training /j	course	1	-	1	-	-	-	2	5,500	6.2	-	6.5	-	-	-	12.7
GALS training at district level /k	course	6	6	-	-	-	-	12	2,500	17.0	17.3	-	-	-	-	34.3
Gender analysis of farming systems /l	lps									17.0	-	-	-	-	-	17.0
Subtotal LWU upskilled										40.2	17.3	6.5	-	-	-	64.1
3. Technical Advisory Group (TAG) /m	meeting	1	2	2	2	2	2	11	4,000	4.5	9.2	9.4	9.6	9.8	10.0	52.7

(Continued over)

Cost table 1: Public services strengthened (continued)

4. Forage development																
a. Forage systems technical assistance																
International TA	pers-month	0.8	0.4	0.4	-	-	-	1.6	21,000	17.3	8.8	9.0	-	-	-	35.1
National forage systems specialist	pers-month	3	3	3	3	3	-	15	2,600	8.8	9.0	9.2	9.4	9.6	-	46.0
Subtotal Forage systems technical assistance										26.1	17.8	18.2	9.4	9.6	-	81.1
b. Development of forage production extension information	lps									17.0	8.1	-	-	-	-	25.1
c. Seed importation and local procurement fs																
Initial forage seed procurement	lps									3.4	46.2	23.6	-	-	-	73.2
Seed procurement from participating farmers /n	Tons	-	20	30	40	40	30	160	1,500	-	34.7	53.1	72.2	73.6	56.3	289.8
Subtotal Seed importation and local procurement fs										3.4	80.9	76.6	72.2	73.6	56.3	363.0
d. Vegetative reproduction																
Contract production	thousands	25	50	50	50	50	50	275	50	1.4	2.9	2.9	3.0	3.1	3.1	16.5
Distribution	thousands	-	10	30	30	30	30	130	10	-	0.1	0.4	0.4	0.4	0.4	1.6
Subtotal Vegetative reproduction										1.4	3.0	3.3	3.4	3.4	3.5	18.0
e. Forage seed production training																
Regional study tours	tours	1	1	-	-	-	-	2	10,000	11.3	11.6	-	-	-	-	22.9
National stakeholder workshop for start-up & review	workshop	1	1	1	1	1	1	6	5,000	5.7	5.8	5.9	6.0	6.1	6.3	35.7
Prov/district workshops for local start-up/ review	workshop	2	4	4	4	-	-	14	2,000	4.5	9.2	9.4	9.6	-	-	32.8
Exchange visits field technicians /o	visits	8	8	8	8	8	-	40	600	5.4	5.5	5.7	5.8	5.9	-	28.3
Exchange visits farmer reps	visits	10	20	20	20	20	20	110	250	2.8	5.8	5.9	6.0	6.1	6.3	32.9
Subtotal Forage seed production training										29.8	37.9	26.9	27.4	18.2	12.5	152.7
f. Forage programme field vehicles and equipment																
Miscellaneous field equipment for TSC staff	set	6	12	-	-	-	-	18	1,000	6.8	13.9	-	-	-	-	20.7
Provincial vehicles 4WD pick-up	each	4	-	-	-	-	-	4	35,000	144.2	-	-	-	-	-	144.2
Subtotal Forage programme field vehicles and equipment										151.0	13.9	-	-	-	-	164.9
g. Management of planting materials																
Seed scarification and fumigation	lps									-	0.9	1.2	1.8	2.5	2.5	8.9
Seed storage	lps									1.1	1.7	2.4	3.6	3.7	3.8	16.3
Seed packaging and labelling	no									0.0	1.7	2.4	3.6	3.7	-	11.4
Seed distribution	lps									0.6	1.2	1.8	3.0	3.1	-	9.6
Subtotal Management of planting materials										1.7	5.5	7.7	12.0	12.9	6.3	46.1
Subtotal Forage development										230.5	167.2	132.7	124.3	117.6	78.6	850.9
5. TSC development /p																
Upgrading of TSC facilities /q	each	1.75	3.25	5	6.75	-	-	16.75	15,000	29.7	56.3	88.4	121.8	-	-	296.3
National TA (farm business management)	pers-month	6	4	4	-	-	-	14	2,600	17.7	12.0	12.3	-	-	-	42.0
DAFO/TSC Farm and business management training	course	2	2	1	1	1	-	7	4,000	9.1	9.2	4.7	4.8	4.9	-	32.7
TSC staff refresher technical training	person weeks	30	90	47	47	47	47	308	250	8.5	26.0	13.9	14.1	14.4	14.7	91.6
Motorcycle	each	6.75	6.75	-	-	-	-	13.5	3,000	20.9	21.3	-	-	-	-	42.1
Subtotal TSC development										85.9	124.9	119.3	140.7	19.3	14.7	504.7
6. Technology testing and transfer																
Pilot low cost drip irrigation demonstrations /r	unit	17.5	32.5	50	67.5	-	-	167.5	230	4.6	8.6	13.6	18.7	-	-	45.4
FFS / farmer-to-farmer national extension specialist TA	pers-month	3	3	3	3	-	-	12	2,600	8.8	9.0	9.2	9.4	-	-	36.4
FFS management training for local NGO & TSC staff and farmer facilitators	course	2	2	-	1	-	-	5	4,000	9.1	9.2	-	4.8	-	-	23.1
Farmer-to-farmer extension training for NGO & TSC staff and national facilitators /s	course	2	2	-	2	-	-	6	4,000	9.1	9.2	-	9.6	-	-	27.9
FFS field school initiatives /t	lps									-	17.3	17.7	18.0	18.4	18.8	90.2
TSC 3-year kum ban innovation contracts	lps	7	13	20	27	-	-	67	6,000	47.6	90.2	141.5	194.8	-	-	474.1
Annual participatory agriculture research workshop /u	workshop	1	1	1	1	1	1	6	5,000	5.7	5.8	5.9	6.0	6.1	6.3	35.7
NAFRI Participatory Action Research /v	lps									-	23.1	47.2	48.1	49.1	50.0	217.5
Subtotal Technology testing and transfer										84.8	172.5	235.0	309.5	73.6	75.1	950.4
Subtotal Strengthening supporting services and technologies										812.8	847.8	866.5	794.4	341.2	223.4	3,886.0
Total										1,033.7	1,007.8	950.7	942.1	348.5	223.4	4,506.2

(Continued over)

Cost table 1: Detailed cost table – Public services strengthened (continued)

\a To familiarise PAFO and DAFO staff with the principles of CDD and its application under the SSFSNP.
\b To familiarise PAFO and DAFO staff with the principles of community based climate change adaptation planning and its application under the SSFSNP.
\c To raise PAFO and DAFO staff awareness of and responsiveness to the roles of women in development
\d To raise PAFO and DAFO staff awareness of and responsiveness to the culture of ethnic people in their provinces
\e DSEDCC or its equivalent at district level
\f Annual independent assessment of Project outcomes and impcts
\g To provide project management and technical advise on nutrition-rich upland agriculture to the Project management team.
\h Unspecified international TA to support DAEC implementation of Project agricultural production, advisory and policy activities
\i Unspecified national TA inputs to support DAEC implementation of Project agricultural production, advisory and policy activities
\j One week training of trainers program for national and provincial LWU leaders
\k GALS training for district level LWU staff
\l Year one desk analysis of women's roles in agriculture production, disaggregated by ethnic group.
\m Biannual meeting of the Project technical Advisory Group, preceeding each NPSC meeting.
\n domestic see prices at USD1,500/ton
\o Two per province per year.
\p Technical Service Center
\q Assume 0.5 TSCs per kum ban and that that 40% of TSCs require upgrading
\r At least 3 x up to 50 m2 schemes per TSC
\s Delivered by DAEC with FAO technical support
\t To support farmer group requested FFS implementation by DAFOs or NGOs for key technical inputs identified under Output 3, Activity 5.
\u Two day annual workshop to set PAR agenda and review peogress
\v Services provided through performance based contracts signed with DAFOs and/or farmers groups or cooperatives.

Cost table 2: Detailed cost table – Community-driven nutrition-sensitive agriculture interventions established

	Unit	Quantities							Unit Cost	Totals Including Contingencies (US$ '000)						
		16/17	17/18	18/19	19/20	20/21	21/22	Total	(US$)	16/17	17/18	18/19	19/20	20/21	21/22	Total
I. Investment Costs																
A. WFP Component 2 administration costs	lps									25.8	26.3	26.8	27.3	27.9	28.4	162.5
B. Planning for improved nutritional outcomes																
1. District multi-sectoral convergence planning																
District monitoring of NNSPA interventions /a	lps	6	12	12	12	12	12	66	1,500	10.2	20.8	21.2	21.6	22.1	22.5	118.5
District convergence planning /b	conference	6	12	12	12	12	12	66	1,200	8.2	16.6	17.0	17.3	17.7	18.0	94.8
District-to-district experiential learning /c	study tour	6	12	12	12	12	12	66	1,200	8.2	16.6	17.0	17.3	17.7	18.0	94.8
Village-to-village experiental learning /d	study tour	20	60	120	180	140	80	600	400	9.1	27.7	56.6	86.6	68.7	40.0	288.7
Subtotal District multi-sectoral convergence planning										35.6	81.8	111.8	142.9	126.1	98.6	596.7
2. Village development planning																
a. Establishing capacity for participatory village investment planning																
Review, existing methodologies in Laos for village level participatory planning /e	pers-month	1	-	-	-	-	-	1	3,000	3.4	-	-	-	-	-	3.4
Preparation of SSFSNP Project participatory planning village implementation manual	pers-month	2	-	-	-	-	-	2	2,600	5.9	-	-	-	-	-	5.9
Project area rural institutional assessment and mapping	pers-month	2	-	-	-	-	-	2	2,600	5.9	-	-	-	-	-	5.9
Workshops on integration of village level planning into district planning systems /f	each	4	-	-	-	-	-	4	4,000	18.1	-	-	-	-	-	18.1
Updating of participatory village planning methodology	pers-month	-	-	1	-	-	-	1	10,000	-	-	11.8	-	-	-	11.8
District/kum ban staff training in participatory village level investment planning /g	district	6	6	-	12	-	-	24	4,000	27.2	27.7	-	57.7	-	-	112.7
District/kum ban staff training in participatory forest and land use planning /h	district	6	6	-	12	-	-	24	4,000	27.2	27.7	-	57.7	-	-	112.7
District/kum ban staff training in community-based forest management /i	district	6	6	-	12	-	-	24	3,000	20.4	20.8	-	43.3	-	-	84.5
Field visits for MAF and MoH management	each	-	1	1	1	1	1	5	4,000	-	4.6	4.7	4.8	4.9	5.0	24.1
National key stakeholder progress review & evaluation workshops	workshop	1	1	1	1	1	1	6	5,000	5.7	5.8	5.9	6.0	6.1	6.3	35.7
Subtotal Establishing capacity for participatory village investment planning										113.8	86.7	22.4	169.6	11.0	11.3	414.7
b. Village/kum ban participatory planning /j																
Raising villager awareness of participatory planning	village	40	80	120	160	-	-	400	500	22.7	46.2	70.7	96.2	-	-	235.8
Village and kum ban level participatory plan development and initial implementation /k	village	40	80	120	160	-	-	400	1,600	72.5	148.0	226.4	307.9	-	-	754.7
Annual village work programme and budget review /l	village	40	120	240	360	280	160	1,200	750	34.0	104.0	212.2	324.7	257.6	150.1	1,082.7
District VDP decision meeting	meeting	6	12	12	12	12	12	66	1,000	6.8	13.9	14.1	14.4	14.7	15.0	79.0
Subtotal Village/kum ban participatory planning										136.0	312.1	523.5	743.2	272.3	165.2	2,152.2
Subtotal Village development planning										249.8	398.8	545.9	912.8	283.4	176.4	2,566.9
Subtotal Planning for improved nutritional outcomes										285.3	480.6	657.6	1,055.6	409.5	275.0	3,163.7
C. Women-led improvement in household nutrition																
1. Farmer nutrition schools																
a. Farmer nutrition schools																
Operating costs for supporting DHO teams	lps	6	12	12	12	12	12	66	2,500	17.0	34.7	35.4	36.1	36.8	37.5	197.5
Training/refresher course costs for village facilitators /m	village	40	80	120	160	-	-	400	500	22.7	46.2	70.7	96.2	-	-	235.8
Operational cost for farmer nutrition schools /n	village	40	120	240	360	280	160	1,200	150	6.8	20.8	42.4	64.9	51.5	30.0	216.5
Village facilitator annual incentive payments	each	100	300	600	900	700	400	3,000	90	10.2	31.2	63.7	97.4	77.3	45.0	324.8
Subtotal Farmer nutrition schools										56.7	132.9	212.2	294.6	165.6	112.6	974.6
b. Social behaviour change communication (SBCC) in Oudomxai /o																
Provincial consultants for gender / nutrition behavioural change /p	pers-month	12	12	12	6	6	6	54	800	10.9	11.1	11.3	5.8	5.9	6.0	51.0
Adaptation of NBBC package to meet provincial specificities /q	lps									-	56.6	-	-	-	-	56.6
Training of DHO and DAFO Staff /r	course									2.8	2.9	2.9	3.0	-	-	11.7
Production of village facilitation tools /s	village	-	50	50	50	-	-	150	100	-	5.8	5.9	6.0	-	-	17.7
Audio-visual equipment for Oudomxai DHO	district									-	2.3	-	-	-	-	2.3
Audio-visual equipment for Oudomxai FNS	village	-	50	50	50	-	-	150	400	-	23.1	23.6	24.1	-	-	70.7
SSFSNP northern region conference on SBCC	conference	1	1	1	1	1	1	6	5,000	5.7	5.8	5.9	6.0	6.1	6.3	35.7
Operating costs for supporting DHO teams	lps									2.7	2.8	2.8	2.9	2.9	3.0	17.2
Subtotal Social behaviour change communication (SBCC) in Oudomxai										22.1	110.4	52.5	47.7	15.0	15.3	262.9
Subtotal Farmer nutrition schools										78.8	243.3	264.7	342.4	180.6	127.9	1,237.6

(Continued over)

Cost table 2: Detailed cost table – Community-driven nutrition-sensitive agriculture interventions established (continued)

2. Household access to nutritious food																
a. Lao Womens Union																
Group management training of LWU trainers /t	course	6	6	-	12	-	-	24	3,000	20.4	20.8	-	43.3	-	-	84.5
GALS training of LWU trainers /u	course	6	6	-	12	-	-	24	2,500	17.0	17.3	-	36.1	-	-	70.4
Operating cost for Lao Women's Union /v	lps	6	12	12	12	12	12	66	2,400	16.3	33.3	34.0	34.6	35.3	36.0	189.6
Training of village women leaders /w	course	7.2	40	60	47	23	-	177.2	800	6.5	37.0	56.6	45.2	22.6	-	167.9
Subtotal Lao Womens Union										60.2	108.4	90.5	159.2	57.9	36.0	512.4
b. DAFO support to household nutrition programme																
Female CAHW training /x	course	6	6	-	12	-	-	24	4,000	27.2	27.7	-	57.7	-	-	112.7
CAHW animal health kits	each	80	160	240	320	-	-	800	100	9.1	18.5	28.3	38.5	-	-	94.3
Operating costs for supporting DAFO teams	lps	6	12	12	12	12	12	66	2,000	13.6	27.7	28.3	28.9	29.4	30.0	158.0
Subtotal DAFO support to household nutrition programme										49.9	74.0	56.6	125.1	29.4	30.0	365.0
Subtotal Household access to nutritious food										110.1	182.4	147.1	284.3	87.3	66.1	877.3
Subtotal Women-led improvement in household nutrition										188.9	425.7	411.8	626.7	267.9	193.9	2,114.9
Total										500.0	932.6	1,096.3	1,709.6	705.2	497.4	5,441.1

\a Annual DHO coordinated survey of GoI, donor and community investments in the 22 NNSPA interventions at village level.
\b Annual two-day conference to plan NNSPA investment convergence as a prelude to preparation of district SEDP AWPBs.
\c To facilitate inter-district sharing of experience in convergence planning and NNSPA intervention implementation
\d Biennial study tours to facilitate inter-village experiental learning concerning NNSPA intervention implementation, including with non-project villages.
\e Identification of best practices in participatory planning in Lao PDR
\f To be held at provincial or regional level
\g District level multi-sectoral training course in participatory village level investment planning
\h District level multi-sectoral training course in participatory village level forest and land use planning
\i District level multi-sectoral training course incommunity-based forest management
\j To be established through contracted service providers and progressively transferred to districs agencies.
\k Includes Service Provider operating costs
\l Includes Service Provider operating costs
\m Training at district level, including inter-district experiential learning
\n Per village per year for 3 years
\o The HGNDP will support SBCC activities in Xieng Khouang, Houaphan and Phongsaly. The Project will cover these costs in Oudomxai
\p S BCC staff based at the PHO
\q To adapt the HGNDP generated NBCC package to meet Oudomxai provincial nutrition and language specificities and to prepare associated teaching materials
\r Training courses for DHO nutrition specialists at provincial level
\s Based on BCC products generated by the HGNDP.
\t Three day training of LWU trainers at kum-ban and district level on group formation and management and the aplication of the four NNSPA agricultural interventions.
\u Three day training/refresher training of LWU trainers at kum-ban and district level on Gender Action learning Systems (GALS).
\v At district and village level
\w Annual training course of elected village women leaders/facilitators at kum ban level. Training would include group leadership and management, bookeeping and farming as a business
\x One week training/retraining of women selected by their communities to provide basic animal health care.

Cost table 3 – Detailed cost table - Sustainable and inclusive market-driven partnerships established

		Quantities							Unit Cost	Totals Including Contingencies (US$ '000)						
	Unit	16/17	17/18	18/19	19/20	20/21	21/22	Total	(US$)	16/17	17/18	18/19	19/20	20/21	21/22	Total
I. Investment Costs																
A. Profitable investment in nutrient-sensitive agriculture																
1. Strategic Investment Planning																
Strategic Investment Plan preparation /a	lps									185.4	-	-	-	-	-	185.4
Analysis of infant supplementary food investment opportunities	lps									25.8	-	-	-	-	-	25.8
Subtotal Strategic Investment Planning										211.2	-	-	-	-	-	211.2
2. Village development fund																
a. Nutrition-sensitive agriculture infrastructure																
Infrastructure for Nutrition-rich agriculture	village	40	80	120	160	-	-	400	30,000	1,200.0	2,400.0	3,600.0	4,800.0	-	-	12,000.0
Design and supervision /b	lps									132.0	264.0	396.0	528.0	-	-	1,320.0
District overhead costs /c	lps									24.0	48.0	72.0	96.0	-	-	240.0
Subtotal Nutrition-sensitive agriculture infrastructure										1,356.0	2,712.0	4,068.0	5,424.0	-	-	13,560.0
b. Productive farmers organizations																
DAFO and TSC staff technical training /d	lps									14.7	28.9	29.5	30.1	30.7	31.3	165.1
Women-led household nutrition food technical packages /e	each	140	280	420	560	-	-	1,400	1,250	175.0	350.0	525.0	700.0	-	-	1,750.0
Farmer group/associatoion investment grants /f	each	120	240	360	580	-	-	1,300	3,000	360.0	720.0	1,080.0	1,740.0	-	-	3,900.0
Kum ban and district farmer cooperative development	each	-	-	-	5	10	10	25	10,000	-	-	-	50.0	100.0	100.0	250.0
Land use right registration of farmer group members (Project cont. (50%)) /g	lps	120	240	360	580	-	-	1,300	300	40.8	83.2	127.3	209.2	-	-	460.6
Land use right registration of farmer group members (Govt. cont. (50%)) /h	lps	120	240	360	580	-	-	1,300	300	40.8	83.2	127.3	209.2	-	-	460.6
GIS support to CBFM implementation and sustainable agriculture /i	lps									-	20.8	21.2	21.6	22.1	22.5	108.3
Subtotal Productive farmers organizations										631.3	1,286.2	1,910.4	2,960.2	152.7	153.8	7,094.6
Subtotal Village development fund										1,987.3	3,998.2	5,978.4	8,384.2	152.7	153.8	20,654.6
Subtotal Profitable investment in nutrient-sensitive agriculture										2,198.5	3,998.2	5,978.4	8,384.2	152.7	153.8	20,865.8
B. Farmers linked to markets																
1. Contract farming review																
International TA (FAO)	pers-month	1.6	0.4	-	-	-	-	2	21,000	34.6	8.8	-	-	-	-	43.4
National TA /j	pers-month	6	4	-	-	-	-	10	2,600	17.7	12.0	-	-	-	-	29.7
Subtotal Contract farming review										52.3	20.8	-	-	-	-	73.1
2. Public-private collaboration																
Public - private collaboration investments /k	lps									-	100.0	200.0	400.0	150.0	-	850.0
Subtotal Farmers linked to markets										52.3	120.8	200.0	400.0	150.0	-	923.1
Total										2,250.8	4,119.0	6,178.4	8,784.2	302.7	153.8	21,788.9

\a Strategic agriculture investment analysis across 4 provinces and 12 districts
\b UN Habitat ontracted supervision of community-based civil works programmes.
\c To cover district overhead costs for servicing village development planning and investment implementation
\d To support a proces of continuous tecnical training of DAFO and TSC staff technical training in fields relevant to SSFSNP implementation
\e Four groups of up to 12 households. Each package valued at USD100/household. Estimated 4 groups per village
\f Up to 3 mixed or disaggregated farmer groups of about 12-15 farmers per village. Up to 1/3rd of grant can be used to purchase advisory services under outcome-based contracts
\g Area estimated at 1.0 ha/group member and 12 members/group and 50 ha per CBFM initiative. Registration cost of USD30/ha for agriculture land
\h Area estimated at 1.0 ha/group member and 12 members/group and 50 ha per CBFM initiative. Registration cost of USD30/ha
\i Technical support provided by PAFO and PoNRE GIS teams. The funding would support field work and GIS report preparation. Thirty percent of funds could be used to buy supporting GIS equipment.
\j National TA to support contract farming review
\k Up to 20% of the matching grant funding can be used for procuring technical support services under outcome-based contracts

Cost table 4: Detailed cost table – Project Management

	Unit	Quantities							Unit Cost	Totals Including Contingencies (US$ '000)						
		16/17	17/18	18/19	19/20	20/21	21/22	Total	(US$)	16/17	17/18	18/19	19/20	20/21	21/22	Total
I. Investment Costs																
A. Vehicles																
MAF PMO 4WD stationwagon	no	1	-	-	-	-	-	1	45,000	46.4	-	-	-	-	-	46.4
Minibus /a	no	1	-	-	-	-	-	1	35,000	36.1	-	-	-	-	-	36.1
DAEC technical support team 4WD pick-up	no	3	-	-	-	-	-	3	35,000	108.2	-	-	-	-	-	108.2
DAEC Motorcycles /b	no	2	-	-	-	-	-	2	3,000	6.2	-	-	-	-	-	6.2
Provincial Field Office 4WD Pick-up	no	4	-	-	-	-	-	4	35,000	144.2	-	-	-	-	-	144.2
Provincial field office motorcycle	no	4	-	-	-	-	-	4	3,000	12.4	-	-	-	-	-	12.4
DAFO 4WD Pick-up	no	6	6	-	-	-	-	12	35,000	216.3	220.7	-	-	-	-	437.0
DAFO motorbike	no	12	12	-	-	-	-	24	3,000	37.1	37.8	-	-	-	-	74.9
DHO motorbike	no	6	6	-	-	-	-	12	3,000	18.5	18.9	-	-	-	-	37.5
Subtotal Vehicles										625.3	277.4	-	-	-	-	902.7
B. Office equipment																
MAF HQ level	set	1	-	-	-	-	-	1	20,000	22.7	-	-	-	-	-	22.7
DAEC technical team	set	1	-	-	-	-	-	1	35,000	39.7	-	-	-	-	-	39.7
Province level	set	4	-	-	-	-	-	4	1,500	6.8	-	-	-	-	-	6.8
District level	set	12	-	-	-	-	-	12	1,500	20.4	-	-	-	-	-	20.4
Subtotal Office equipment										89.5	-	-	-	-	-	89.5
C. Upgrading office software																
1. Upgrading accounting	lps									22.7	-	-	-	-	-	22.7
2. Upgrading PROMIS	lps									68.0	80.9	-	-	-	-	148.9
Subtotal Upgrading office software										90.7	80.9	-	-	-	-	171.6
D. Technical Assistance, Studies and Workshops																
Baseline survey	lps									34.0	-	-	-	-	-	34.0
Environment and Social Management Plan	lps									22.7	-	-	-	-	-	22.7
PIM Preparation	lps									9.1	-	-	-	-	-	9.1
Startup workshop	workshop	1	-	-	-	-	-	1	11,000	12.5	-	-	-	-	-	12.5
Annual Review and Planning Workshop	workshop	1	1	1	1	1	1	6	9,000	10.2	10.4	10.6	10.8	11.0	11.3	64.3
Knowledge Management-Publications	lps									-	5.8	5.9	6.0	6.1	6.3	30.1
HQ staff training /c	lps									6.8	4.6	2.4	2.4	2.5	2.5	21.1
Ad hoc Studies and Assistance	lps	-	1	1	1	1	1	5	4,000	-	4.6	4.7	4.8	4.9	5.0	24.1
Mid-term review	lps	-	-	1	-	-	-	1	20,000	-	-	23.6	-	-	-	23.6
Final impact survey	lps	-	-	-	-	-	1	1	25,000	-	-	-	-	-	31.3	31.3
Subtotal Technical Assistance, Studies and Workshops										95.2	25.4	47.2	24.1	24.5	56.3	272.7
Total Investment Costs										900.7	383.8	47.2	24.1	24.5	56.3	1,436.5

(Continued over)

Cost table 4: Detailed cost table – Project Management (continued)

II. Recurrent Costs																
A. Salaries																
1. MAF HQ level																
Director	pers-month	12	12	12	12	12	12	72	300	3.7	3.8	3.9	3.9	4.0	4.1	23.4
Procurement Manager	pers-month	12	12	12	12	12	12	72	1,200	14.8	15.1	15.4	15.7	16.1	16.4	93.6
Finance and Administration Manager	pers-month	12	12	12	12	12	12	72	1,200	14.8	15.1	15.4	15.7	16.1	16.4	93.6
Procurement assistant	pers-month	12	12	12	12	12	12	72	600	7.4	7.6	7.7	7.9	8.0	8.2	46.8
Financial Assistant	pers-month	12	12	12	12	12	12	72	600	7.4	7.6	7.7	7.9	8.0	8.2	46.8
Monitoring and Evaluation Coordinator	pers-month	12	12	12	12	12	12	72	1,000	12.4	12.6	12.9	13.1	13.4	13.6	78.0
Knowledge Management Officer	pers-month	12	12	12	12	12	12	72	1,000	12.4	12.6	12.9	13.1	13.4	13.6	78.0
Administrative officer	pers-month	24	24	24	24	24	24	144	300	7.4	7.6	7.7	7.9	8.0	8.2	46.8
Driver	pers-month	24	24	24	24	24	24	144	250	6.2	6.3	6.4	6.6	6.7	6.8	39.0
Subtotal MAF HQ level										86.5	88.3	90.0	91.8	93.7	95.5	545.9
2. DAEC technical support team																
Technical team coordinator	pers-month	12	12	12	12	12	12	72	300	3.7	3.8	3.9	3.9	4.0	4.1	23.4
Cropping Technical Coordinator	pers-month	12	12	12	12	12	12	72	300	3.7	3.8	3.9	3.9	4.0	4.1	23.4
Livestock Technical Coordinator	pers-month	12	12	12	12	12	12	72	300	3.7	3.8	3.9	3.9	4.0	4.1	23.4
Farmer Group Coordinator	pers-month	12	12	12	12	12	12	72	300	3.7	3.8	3.9	3.9	4.0	4.1	23.4
Accountant	pers-month	12	12	12	12	12	12	72	600	7.4	7.6	7.7	7.9	8.0	8.2	46.8
Administation support officer	pers-month	12	12	12	12	12	12	72	300	3.7	3.8	3.9	3.9	4.0	4.1	23.4
Driver	pers-month	36	36	36	36	36	36	216	250	9.3	9.5	9.6	9.8	10.0	10.2	58.5
Subtotal DAEC technical support team										35.2	35.9	36.7	37.4	38.1	38.9	222.3
3. Provincial level																
Provincial Coordinator /d	pers-month	12	12	12	12	12	12	72	300	3.7	3.8	3.9	3.9	4.0	4.1	23.4
Provincial DAEC Coordinator /e	pers-month	19.2	19.2	19.2	19.2	19.2	19.2	115.2	300	5.9	6.1	6.2	6.3	6.4	6.6	37.4
M&E and KM Officer	pers-month	48	48	48	48	48	48	288	800	39.6	40.4	41.2	42.0	42.8	43.7	249.5
Subtotal Provincial level										49.2	50.2	51.2	52.2	53.3	54.3	310.4
4. District level																
DAFOCoordinator /f	pers-year	3	6	6	6	6	6	33	3,600	11.1	22.7	23.2	23.6	24.1	24.6	129.2
District DAEC Coordinator /g	pers-year	3	6	6	6	6	6	33	3,600	11.1	22.7	23.2	23.6	24.1	24.6	129.2
Project accountant /h	pers-year	6	12	12	12	12	12	66	6,000	37.1	75.7	77.2	78.7	80.3	81.9	430.8
District DAFO technical staff /i	pers-year	12	24	24	24	24	24	132	3,600	44.5	90.8	92.6	94.5	96.3	98.3	517.0
DAEC Technical Service Centre staff /j	pers-year	7	20	40	60	47	23	197	3,600	26.0	75.7	154.3	236.1	188.7	94.2	775.0
Subtotal District level										129.8	287.5	370.4	456.5	413.5	323.5	1,981.2
Subtotal Salaries										300.8	461.9	548.3	638.0	598.6	512.3	3,059.8
B. DSA (local travel)																
PCO staff per diem /k	per-annum	1	1	1	1	1	1	6	12,000	13.6	13.9	14.1	14.4	14.7	15.0	85.8
DAEC staff per diem /l	per-annum	1	1	1	1	1	1	6	15,000	17.0	17.3	17.7	18.0	18.4	18.8	107.2
PAFO project staff per diem /m	per-annum	4	4	4	4	4	4	24	2,500	11.3	11.6	11.8	12.0	12.3	12.5	71.5
HQ staff secondment to PAFOs /n	pers-month	12	24	24	12	12	12	96	900	12.2	25.0	25.5	13.0	13.2	13.5	102.4
DAFO project staff per diem /o	per-annum	6	12	12	12	12	12	66	2,000	13.6	27.7	28.3	28.9	29.4	30.0	158.0
PAFO staff secondment to DAFOs /p	pers-month	12	36	36	12	12	12	120	900	12.2	37.5	38.2	13.0	13.2	13.5	127.6
Subtotal DSA (local travel)										80.0	132.9	135.6	99.3	101.3	103.3	652.5
C. Operation and maintenance																
1. Vehicle O&M	per-annum									123.8	181.2	184.8	188.5	192.3	196.2	1,066.9
2. Office equipment O&M	per-annum									9.0	9.1	9.3	9.5	9.7	9.9	56.5
Subtotal Operation and maintenance										132.8	190.4	194.2	198.0	202.0	206.0	1,123.4

(Continued over)

D. Other operating costs																
1. Sub-comittee for nutrition-rich upland agriculture /q	per-annum	1	1	1	1	1	1	6	3,500	4.0	4.0	4.1	4.2	4.3	4.4	25.0
2. HQ and DAEC Level																
Office utilities	per-annum	2	2	2	2	2	2	12	5,000	11.3	11.6	11.8	12.0	12.3	12.5	71.5
Banking services	per-annum	1	1	1	1	1	1	6	3,000	3.4	3.5	3.5	3.6	3.7	3.8	21.4
Audit /r	per-annum	1	1	1	1	1	1	6	20,000	22.7	23.1	23.6	24.1	24.5	25.0	143.0
Telecommunications	per-annum	2	2	2	2	2	2	12	7,000	15.9	16.2	16.5	16.8	17.2	17.5	100.1
Stationary	per-annum	2	2	2	2	2	2	12	4,000	9.1	9.2	9.4	9.6	9.8	10.0	57.2
NPSC meetings	per-annum	2	2	2	2	2	2	12	2,500	5.7	5.8	5.9	6.0	6.1	6.3	35.7
PPSC meetings	per-annum	2	2	2	2	2	2	12	1,500	3.4	3.5	3.5	3.6	3.7	3.8	21.4
Other	per-annum	1	1	1	1	1	1	6	10,000	11.3	11.6	11.8	12.0	12.3	12.5	71.5
Subtotal HQ and DAEC Level										82.7	84.4	86.1	87.8	89.5	91.3	521.8
3. Provincial level	per-annum	4	4	4	4	4	4	24	1,400	6.3	6.5	6.6	6.7	6.9	7.0	40.0
4. District level	per-annum	6	12	12	12	12	12	66	2,000	13.6	27.7	28.3	28.9	29.4	30.0	158.0
Subtotal Other operating costs										106.6	122.6	125.1	127.6	130.1	132.7	744.9
Total Recurrent Costs										620.2	907.8	1,003.1	1,062.9	1,032.0	954.4	5,580.5
Total										1,520.9	1,291.6	1,050.3	1,087.0	1,056.6	1,010.7	7,017.0

\a To support staff and farmer training
\b For project administration purposes
\c NPCO and DAEC Technical team staff members
\d Twenty five percent of time dedicated to SSFSNP implementation
\e Forty percent of time dedicated to SSFSNP implementation
\f Fifty percent of time dedicated to SSFSNP implementation
\g Fifty percent of time dedicated to SSFSNP implementation
\h Estimated salary of USD500 per month
\i Each participating DAFO would commit 2 person years of DAFO technical staff tiem per district per year.
\j 12 person months of TSC support to SSFSNP per centre per year
\k For all national and regional PMO travel
\l For all national and regional PMO travel
\m For Provincial Project Coordination staff field travel
\n Managed by PAFOs to address perdiem expenses for short- to medium-term staff capacity gaps
\o For DAFO staff field travel in support of project activities.
\p Managed by DAFOs to address perdiem expenses for short- to medium-term staff capacity gaps
\q To cover annual meeting costs in Project provinces and periodic field visits
\r Includes audit of randomly selected VDF investments

Cost table 5: Components Project Cost Summary

	(LAK Million)			(US$ '000)			% Foreign	% Total Base
	Local	Foreign	Total	Local	Foreign	Total	Exchange	Costs
1. Strengthened public services	20,199	13,435	33,634	2,430	1,616	4,046	40	11
2. Community-driven, nutrition-sensitive agriculture interventions established	34,005	4,881	38,886	4,090	587	4,677	13	13
3. Sustainable and inclusive market-driven partnerships established	123,691	48,692	172,383	15,425	6,072	21,497	28	59
4. Project management	38,712	14,358	53,071	4,656	1,727	6,383	27	17
Total BASELINE COSTS	216,608	81,366	297,973	26,601	10,002	36,603	27	100
Physical Contingencies	7,844	2,089	9,933	948	251	1,199	21	3
Price Contingencies	16,074	4,502	20,576	742	209	951	22	3
Total PROJECT COSTS	240,526	87,957	328,483	28,291	10,462	38,753	27	106

Cost table 6: Expenditure Accounts Project Cost Summary

	(LAK Million)			(US$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs								
A. Civil works	1,751	584	2,334	211	70	281	25	1
B. Vehicles	4,458	4,458	8,917	536	536	1,073	50	3
C. Equipment	1,055	2,461	3,515	127	296	423	70	1
D. Agri Inputs	7,928	2,471	10,399	954	297	1,251	24	3
E. Matching grant	106,344	45,576	151,920	13,293	5,697	18,990	30	52
F. Capacity building and learning	28,056	7,014	35,070	3,375	844	4,218	20	12
G. National Technical Assistance	33,100	-	33,100	4,027	-	4,027	-	11
H. International Technical Assistance	1,093	9,841	10,934	132	1,184	1,315	90	4
Total Investment Costs	183,785	72,404	256,190	22,653	8,924	31,577	28	86
II. Recurrent Costs								
A. Salary & allowances	23,861	-	23,861	2,870	-	2,870	-	8
B. Other operating costs	8,961	8,961	17,923	1,078	1,078	2,156	50	6
Total Recurrent Costs	32,822	8,961	41,784	3,948	1,078	5,026	21	14
Total BASELINE COSTS	216,608	81,366	297,973	26,601	10,002	36,603	27	100
Physical Contingencies	7,844	2,089	9,933	948	251	1,199	21	3
Price Contingencies	16,074	4,502	20,576	742	209	951	22	3
Total PROJECT COSTS	240,526	87,957	328,483	28,291	10,462	38,753	27	106

Cost table 7: Expenditure Accounts by Components – Totals including Contingencies (USD'000)

	Strengthened public services	Community-driven, nutrition-sensitive agriculture interventions established	Sustainable and inclusive market-driven partnerships established	Project management	Total
I. Investment Costs					
A. Civil works	324	-	-	-	324
B. Vehicles	186	-	-	903	1,089
C. Equipment	143	73	-	261	477
D. Agri Inputs	427	-	1,029	-	1,457
E. Matching grant	-	-	18,990	-	18,990
F. Capacity building and learning	1,098	3,150	376	240	4,864
G. National Technical Assistance	1,007	2,218	1,350	33	4,608
H. International Technical Assistance	1,321	-	43	-	1,364
Total Investment Costs	4,506	5,441	21,789	1,437	33,173
II. Recurrent Costs					
A. Salary & allowances	-	-	-	3,060	3,060
B. Other operating costs	-	-	-	2,521	2,521
Total Recurrent Costs	-	-	-	5,580	5,580
Total PROJECT COSTS	4,506	5,441	21,789	7,017	38,753
Taxes	258	444	109	7	817
Foreign Exchange	1,718	681	6,120	1,942	10,462

Cost table 8: Expenditure Accounts by Components – Totals including Contingencies (LAK Million)

	Strengthened public services	Community-driven, nutrition-sensitive agriculture interventions established	Sustainable and inclusive market-driven partnerships established	Project management	Total
I. Investment Costs					
A. Civil works	2,897	-	-	-	2,897
B. Vehicles	1,578	-	-	7,685	9,263
C. Equipment	1,238	653	-	2,223	4,114
D. Agri Inputs	3,917	-	9,261	-	13,178
E. Matching grant	-	-	151,920	-	151,920
F. Capacity building and learning	9,876	28,580	3,293	2,150	43,900
G. National Technical Assistance	9,006	20,154	10,814	298	40,272
H. International Technical Assistance	11,614	-	369	-	11,983
Total Investment Costs	40,127	49,387	175,657	12,357	277,527
II. Recurrent Costs					
A. Salary & allowances	-	-	-	27,990	27,990
B. Other operating costs	-	-	-	22,965	22,965
Total Recurrent Costs	-	-	-	50,955	50,955
Total PROJECT COSTS	40,127	49,387	175,657	63,312	328,483
Taxes	2,306	4,031	977	60	7,373
Foreign Exchange	15,128	6,173	49,345	17,311	87,957

Cost table 9: Project Components by Year -- Totals Including Contingencies (USD'000)

	Totals Including Contingencies						
	16/17	17/18	18/19	19/20	20/21	21/22	Total
1. Strengthened public services	1,034	1,008	951	942	349	223	4,506
2. Community-driven, nutrition-sensitive agriculture interventions established	500	933	1,096	1,710	705	497	5,441
3. Sustainable and inclusive market-driven partnerships established	2,251	4,119	6,178	8,784	303	154	21,789
4. Project management	1,521	1,292	1,050	1,087	1,057	1,011	7,017
Total PROJECT COSTS	5,305	7,351	9,276	12,523	2,413	1,885	38,753

Cost table 10: Project Components by Year -- Investment/Recurrent Costs (USD'000)

	Totals Including Contingencies						
	16/17	17/18	18/19	19/20	20/21	21/22	Total
A. Strengthened public services							
Investment Costs	1,034	1,008	951	942	349	223	4,506
Recurrent Costs	-	-	-	-	-	-	-
Subtotal Strengthened public services	1,034	1,008	951	942	349	223	4,506
B. Community-driven, nutrition-sensitive agriculture interventions established							
Investment Costs	500	933	1,096	1,710	705	497	5,441
Recurrent Costs	-	-	-	-	-	-	-
Subtotal Community-driven, nutrition-sensitive agriculture interventions established	500	933	1,096	1,710	705	497	5,441
C. Sustainable and inclusive market-driven partnerships established							
Investment Costs	2,251	4,119	6,178	8,784	303	154	21,789
Recurrent Costs	-	-	-	-	-	-	-
Subtotal Sustainable and inclusive market-driven partnerships established	2,251	4,119	6,178	8,784	303	154	21,789
D. Project management							
Investment Costs	901	384	47	24	25	56	1,437
Recurrent Costs	620	908	1,003	1,063	1,032	954	5,580
Subtotal Project management	1,521	1,292	1,050	1,087	1,057	1,011	7,017
Total PROJECT COSTS	5,305	7,351	9,276	12,523	2,413	1,885	38,753
Total Investment Costs	4,685	6,443	8,272	11,460	1,381	931	33,173
Total Recurrent Costs	620	908	1,003	1,063	1,032	954	5,580

Cost table 11: Expenditure Accounts by Year -- Totals Including Contingencies (USD'000)

	Base Cost							Foreign Exchange	
	16/17	17/18	18/19	19/20	20/21	21/22	Total	%	Amount
I. Investment Costs									
A. Civil works	35	58	77	111	-	-	281	25.0	70
B. Vehicles	783	290	-	-	-	-	1,073	50.0	536
C. Equipment	213	141	32	36	-	-	423	70.0	296
D. Agri Inputs	79	244	314	448	93	72	1,251	23.8	297
E. Matching grant	1,759	3,618	5,477	7,786	250	100	18,990	30.0	5,697
F. Capacity building and learning	814	743	664	1,070	500	427	4,218	20.0	844
G. National Technical Assistance	449	717	1,040	1,349	292	180	4,027	-	-
H. International Technical Assistance	390	368	343	150	64	-	1,315	90.0	1,184
Total Investment Costs	4,522	6,180	7,946	10,950	1,199	780	31,577	28.3	8,924
II. Recurrent Costs									
A. Salary & allowances	298	448	522	595	547	459	2,870	-	-
B. Other operating costs	287	393	393	360	360	360	2,156	50.0	1,078
Total Recurrent Costs	585	842	915	956	908	820	5,026	21.4	1,078
Total BASELINE COSTS	5,107	7,022	8,862	11,906	2,107	1,599	36,603	27.3	10,002
Physical Contingencies	164	227	249	335	122	101	1,199	20.9	251
Price Contingencies									
Inflation									
Local	53	176	315	590	394	401	1,929	-	-
Foreign	13	32	41	54	35	34	209	100.0	209
Subtotal Inflation	65	208	356	644	429	435	2,138	9.8	209
Devaluation	-32	-106	-192	-362	-245	-251	-1,187	-	-
Subtotal Price Contingencies	34	102	165	282	185	184	951	22.0	209
Total PROJECT COSTS	5,305	7,351	9,276	12,523	2,413	1,885	38,753	27.0	10,462
Taxes	86	141	201	268	74	47	817	-	-
Foreign Exchange	1,815	2,167	2,488	3,143	485	364	10,462	-	-

Cost table 12: Expenditure Accounts Breakdown (USD'000)

	Base Cost				Physical Contingencies				Price Contingencies				Total Incl. Cont.				Base Costs + Price Cont. on Base Costs	Physical Cont. Plus Price Cont. on Physical Cont.
	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total	For. Exch.	Local (Excl. Taxes)	Duties & Taxes	Total		
I. Investment Costs																		
A. Civil works	70	172	38	281	7	17	4	28	4	9	2	15	81	199	44	324	295	29
B. Vehicles	536	536	-	1,073	-	-	-	-	8	8	-	17	545	545	-	1,089	1,089	-
C. Equipment	296	127	-	423	30	13	-	42	8	4	-	12	334	143	-	477	433	43
D. Agri Inputs	297	855	99	1,251	30	85	10	125	18	57	6	81	345	997	115	1,457	1,324	132
E. Matching grant	5,697	13,293	-	18,990	-	-	-	-	-	-	-	-	5,697	13,293	-	18,990	18,990	-
F. Capacity building and learning	844	3,375	-	4,218	77	309	-	386	52	208	-	260	973	3,891	-	4,864	4,455	408
G. National Technical Assistance	-	3,461	565	4,027	-	346	57	403	-	143	36	179	-	3,950	658	4,608	4,189	419
H. International Technical Assistance	1,184	132	-	1,315	-	-	-	-	44	5	-	49	1,228	136	-	1,364	1,364	-
Total Investment Costs	8,924	21,950	703	31,577	143	770	70	984	134	434	44	612	9,202	23,154	817	33,173	32,140	1,032
II. Recurrent Costs																		
A. Salary & allowances	-	2,870	-	2,870	-	-	-	-	-	190	-	190	-	3,060	-	3,060	3,060	-
B. Other operating costs	1,078	1,078	-	2,156	108	108	-	216	75	75	-	149	1,260	1,260	-	2,521	2,292	229
Total Recurrent Costs	1,078	3,948	-	5,026	108	108	-	216	75	264	-	339	1,260	4,320	-	5,580	5,351	229
Total	10,002	25,898	703	36,603	251	878	70	1,199	209	698	44	951	10,462	27,474	817	38,753	37,492	1,261

Cost table 13: Components by Financiers (USD'000)

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
1. Strengthened public services	4,248	94.3	-	-	-	-	-	-	258	5.7	4,506	11.6	1,718	2,530	258
2. Community-driven, nutrition-sensitive agriculture interventions established	4,997	91.8	-	-	-	-	-	-	444	8.2	5,441	14.0	681	4,316	444
3. Sustainable and inclusive market-driven partnerships established	16,132	74.0	1,800	8.3	434	2.0	2,900	13.3	523	2.4	21,789	56.2	6,120	15,560	109
4. Project management	4,622	65.9	-	-	-	-	-	-	2,395	34.1	7,017	18.1	1,942	5,068	7
Total PROJECT COSTS	30,000	77.4	1,800	4.6	434	1.1	2,900	7.5	3,620	9.3	38,753	100.0	10,462	27,474	817

Cost table 14: Disbursement Accounts by Financiers (USD'000)

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
Civil works	280	86.3	-	-	-	-	-	-	44	13.7	324	0.8	81	199	44
Vehicles	1,089	100.0	-	-	-	-	-	-	0	-	1,089	2.8	545	545	-
Equipment	477	100.0	-	-	-	-	-	-	0	-	477	1.2	334	143	-
Agri Inputs	927	63.7	-	-	-	-	-	-	529	36.3	1,457	3.8	345	997	115
Matching Grant	13,857	73.0	1,800	9.5	434	2.3	2,900	15.3	-0	-	18,990	49.0	5,697	13,293	-
National technical assistance	3,950	85.7	-	-	-	-	-	-	658	14.3	4,608	11.9	-	3,950	658
International technical assistance	1,364	100.0	-	-	-	-	-	-	0	-	1,364	3.5	1,228	136	-
Capacity building and learning	4,864	100.0	-	-	-	-	-	-	0	-	4,864	12.5	973	3,891	-
Salary & allowances	1,273	41.6	-	-	-	-	-	-	1,787	58.4	3,060	7.9	-	3,060	-
Other operating costs	1,919	76.1	-	-	-	-	-	-	602	23.9	2,521	6.5	1,260	1,260	-
Total PROJECT COSTS	30,000	77.4	1,800	4.6	434	1.1	2,900	7.5	3,620	9.3	38,753	100.0	10,462	27,474	817

Cost table 15: Expenditure Accounts by Financiers (USD'000)

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs															
A. Civil works	280	86.3	-	-	-	-	-	-	44	13.7	324	0.8	81	199	44
B. Vehicles	1,089	100.0	-	-	-	-	-	-	0	-	1,089	2.8	545	545	-
C. Equipment	477	100.0	-	-	-	-	-	-	0	-	477	1.2	334	143	-
D. Agri Inputs	927	63.7	-	-	-	-	-	-	529	36.3	1,457	3.8	345	997	115
E. Matching grant	13,857	73.0	1,800	9.5	434	2.3	2,900	15.3	-0	-	18,990	49.0	5,697	13,293	-
F. Capacity building and learning	4,864	100.0	-	-	-	-	-	-	0	-	4,864	12.5	973	3,891	-
G. National Technical Assistance	3,950	85.7	-	-	-	-	-	-	658	14.3	4,608	11.9	-	3,950	658
H. International Technical Assistance	1,364	100.0	-	-	-	-	-	-	0	-	1,364	3.5	1,228	136	-
Total Investment Costs	26,808	80.8	1,800	5.4	434	1.3	2,900	8.7	1,231	3.7	33,173	85.6	9,202	23,154	817
II. Recurrent Costs															
A. Salary & allowances	1,273	41.6	-	-	-	-	-	-	1,787	58.4	3,060	7.9	-	3,060	-
B. Other operating costs	1,919	76.1	-	-	-	-	-	-	602	23.9	2,521	6.5	1,260	1,260	-
Total Recurrent Costs	3,192	57.2	-	-	-	-	-	-	2,389	42.8	5,580	14.4	1,260	4,320	-
Total PROJECT COSTS	30,000	77.4	1,800	4.6	434	1.1	2,900	7.5	3,620	9.3	38,753	100.0	10,462	27,474	817

Cost table 16: Local/Foreign/Taxes by Financiers (USD'000)

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Foreign	8,483	81.1	540	5.2	130	1.2	870	8.3	439	4.2	10,462	27.0
II. Local (Excl. Taxes)	21,517	78.3	1,260	4.6	303	1.1	2,030	7.4	2,364	8.6	27,474	70.9
III. Taxes	-	-	-	-	-	-	-	-	817	100.0	817	2.1
Total Project	30,000	77.4	1,800	4.6	434	1.1	2,900	7.5	3,620	9.3	38,753	100.0

Cost table 17: Disbursements by Semesters and Government Cash Flow (USD'000)

	Financing Available					Costs to be Financed e Government		
	GAFSP	Govt. Parallel Investment	Private enterprise sector	Farmer beneficiaries		Project		Cumulative
	Amount	Amount	Amount	Amount	Total	Costs	Cash Flow	Cash Flow
1	1,807	72	-	108	1,987	2,122	-135	-135
2	2,711	108	-	162	2,981	3,183	-202	-337
3	3,501	216	31	324	4,072	4,411	-339	-676
4	2,334	144	20	216	2,714	2,940	-226	-902
5	4,245	324	61	486	5,116	5,565	-450	-1,352
6	2,830	216	41	324	3,410	3,710	-300	-1,652
7	5,665	432	122	708	6,927	7,514	-587	-2,238
8	3,776	288	82	472	4,618	5,009	-391	-2,629
9	1,040	-	46	30	1,116	1,448	-332	-2,961
10	693	-	31	20	744	965	-221	-3,182
11	838	-	-	30	868	1,131	-263	-3,445
12	559	-	-	20	579	754	-175	-3,620
Total	30,000	1,800	434	2,900	35,133	38,753	-3,620	-3,620

Table 18: IFAD Project cost breakdown

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
Civil works	280	86.3	-	-	-	-	-	-	44	13.7	324	1.0	81	199	44
Vehicles	1,089	100.0	-	-	-	-	-	-	0	-	1,089	3.4	545	545	-
Equipment	404	100.0	-	-	-	-	-	-	0	-	404	1.2	283	121	-
Agri Inputs	927	63.7	-	-	-	-	-	-	529	36.3	1,457	4.5	345	997	115
Matching Grant	13,857	73.0	1,800	9.5	434	2.3	2,900	15.3	-0	-	18,990	58.8	5,697	13,293	-
National technical assistance	2,176	91.0	-	-	-	-	-	-	214	9.0	2,390	7.4	-	2,176	214
International technical assistance	362	100.0	-	-	-	-	-	-	0	-	362	1.1	326	36	-
Capacity building and learning	1,714	100.0	-	-	-	-	-	-	0	-	1,714	5.3	343	1,371	-
Salary & allowances	1,273	41.6	-	-	-	-	-	-	1,787	58.4	3,060	9.5	-	3,060	-
Other operating costs	1,919	76.1	-	-	-	-	-	-	602	23.9	2,521	7.8	1,260	1,260	-
Total PROJECT COSTS	24,000	74.3	1,800	5.6	434	1.3	2,900	9.0	3,176	9.8	32,310	100.0	8,879	23,058	373

Table 19. WFP Project cost breakdown

	GAFSP		Govt. Parallel Investment		Private enterprise sector		Farmer beneficiaries		The Government		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
Civil works	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment	73	100.0	-	-	-	-	-	-	0	-	73	1.1	51	22	-
Agri Inputs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Matching Grant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
National technical assistance	1,775	80.0	-	-	-	-	-	-	444	20.0	2,218	34.4	-	1,775	444
International technical assistance	1,003	100.0	-	-	-	-	-	-	0	-	1,003	15.6	902	100	-
Capacity building and learning	3,150	100.0	-	-	-	-	-	-	0	-	3,150	48.9	630	2,520	-
Salary & allowances	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other operating costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PROJECT COSTS	6,000	93.1	-	-	-	-	-	-	444	6.9	6,444	100.0	1,583	4,417	444

Appendix 10: Financial and Economic Analysis

EFA Summary Page

Table A - Illustrative Model Cash Flow

Project Year	Upland Illustrative Model (LAK'000)			Valley Bottom Illustrative Model (LAK'000)		
	WOP \1	WP	Incremental	WOP	WP	Incremental
PY1	3,041	11,384	8,344	3,452	4,203	751
PY2	3,041	11,155	8,114	2,852	3,933	1,081
PY3	3,041	21,282	18,242	2,252	10,395	8,143
PY4	3,041	22,133	19,092	3,452	13,226	9,774
PY5	3,041	21,714	18,673	2,852	12,694	9,842
PY6	3,041	23,172	20,131	2,252	14,882	12,630
PY7	3,041	22,814	19,774	3,452	14,882	11,430
PY8	3,041	22,439	19,398	2,852	13,187	10,335
PY9	3,041	23,004	19,963	2,252	14,882	12,630
PY10	3,041	23,004	19,963	3,452	14,882	11,430
NPV @ 10%			146,104			74,972

Table B - Project Cost and Indicators for Log Frame

Total Project Total Costs (USD m): **38.78**		Base costs: 36.67	PMU 1
Beneficiaries \1	People **136,680**	Households 20,400	Villages 400
Cost per beneficiary	USD **284** x person	USD **1,900** x HH	**Participation rate: 60%**

Components and Cost (USD M)		**Outcomes and Indicators**	
Build government staff capacities and procedures and technical packages to support and converge community implementation of selected National Nutrition Strategy interventions	5.07	30 technical service centres operating profitably using outcome-based farmer contracts. 6 sustainable climate-adapted and nutrition-sensitive agriculture and natural resource management technologies adopted by more than 10,000 farmers (disaggregated by gender)	Districts have guidelines and tools for participatory nutrition-sensitive, market-led agriculture and rural development planning and implementation At least 70% rural household satisfaction with farmer-level technical information services (gender, age ethnic and poverty disaggregated).
Community-driven agriculture-based nutrition interventions established	5.44	400 participatory village investment plans approved and financed. 20% increase in micronutrient, protein- and lipid- rich foods production in at least 21,000 project households.	34,000 beneficiary households participate in VDP preparation (disaggregated by gender and ethnicity of HH-head) 50 per cent of 30,000 FNS participants achieve a Women's Empowerment in Agriculture Index (WEAI) score ≥ 80 percent of the weighted indicators;
Sustainable and inclusive market-driven partnerships established	22.60	30 agricultural cooperatives or community-based agro-enterprises profitably established 10,000 farmers with new land use rights recorded (disaggregated by gender) in a manner recognized by national or customary law	2,000 hectares of new irrigated land established 8,000 ha of upland agricultural land farmed sustainably under contract.

\1 Assumes 85 households per village (Consultant) and 6.7 persons per rural household (National Population census 2005), 60% adoption rate

Table C – Financial Analysis Main Assumptions

Financial Parameters (selected)				
Outputs	Av. Yield Increase	Price (LAK/kg)	**Inputs**	Price (LAK)
Upland rice	125%	1,600	NPK fertiliser (kg)	5,600
Lowland rice	100%	2,500	Plant protection chemicals (litre)	75,000
Maize	40%	1,200	Improved maize seeds (kg)	2,000
Home garden	100%	5,000	Improved paddy seed (kg)	7,000
Pigs	81%	36,500	Improved vegetable seed (kg)	200,000

Table D - Beneficiaries, Adoption Rates and Phasing

	PY 1	**PY 2**	**PY 3**	**PY 4**	**PY 5**	**PY 6**
Villages						
Incremental	40	80	120	160	-	-
Cumulative	40	120	240	400	400	400
Participating households \1						
Incremental	2,040	4,080	6,120	8,160	-	-
Cumulative	2,040	6,120	12,240	20,400	20,400	20,400
Beneficiaries \2						
Incremental	13,668	27,336	41,004	54,672	-	-
Cumulative	13,668	41,004	82,008	136,680	136,680	136,680

\1 Assuming 85 households per village and 60% adoption
\2 Assuming 6.7 persons per household

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

Project Years (Selected)	**Avoided health care costs**	**Incremental income**	**Total incremental benefits**	**Total incremental costs**	**Cash flow**
PY 1	-	-	0	5,207	(5,207)
PY 2	0	-	0	6,838	(6,838)
PY 3	0	-	1	8,994	(8,993)
PY 4	1	-	1	12,046	(12,044)
PY 5	2	-	3	2,616	(2,614)
PY 6	4	-	5	1,888	(1,883)
PY 7	7	-	8	-	8
PY 8	11	-	11	-	11
PY 9	15	-	15	-	15
PY 10	20	-	20	-	20
PY 15	54	-	58	-	58
PY 20	94	426	564	-	564
PY 25	131	2,802	2,983	-	2,983
PY 30	165	7,962	8,186	-	8,186
PY 35	197	14,983	15,247	-	15,247
PY 40	227	23,614	23,919	-	23,919

The economic analysis compares the project costs in economic terms to the incremental life time earnings and avoided health care cost resulting from the reduction in stunting due to behavioural change described in the project's outcomes.

ENPV @ 6%	USD '000	60,153
ENPV @ 6%	LAK million	481,220,000
EIRR	%	8.7%
BCR	ratio	2.92

Graph F - Project Economic Cash Flow

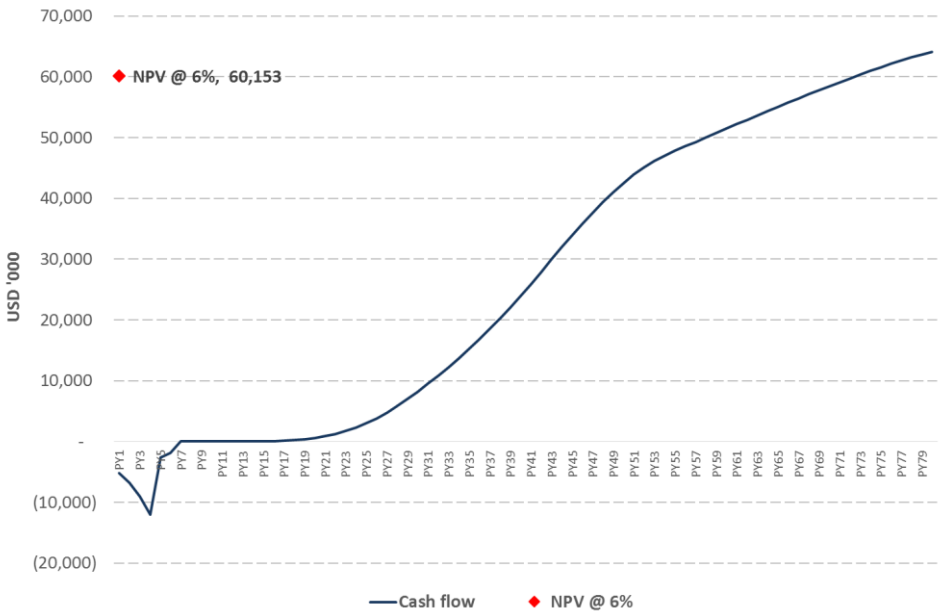
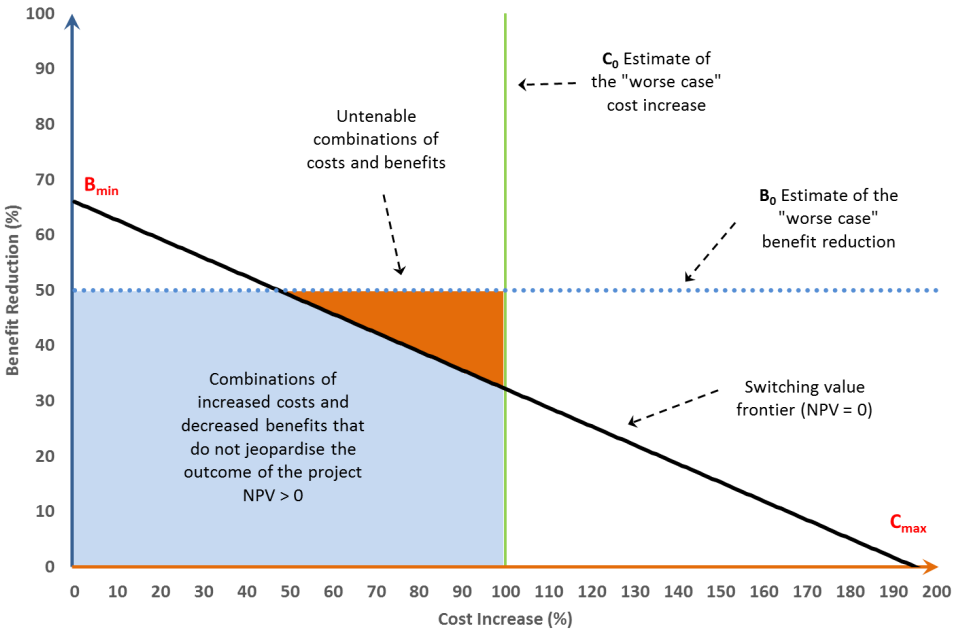


Table G - Sensitivity Analysis

Scenario			Link to Risk Matrix	EIRR	ENPV (USD '000)
Base Case				8.7%	60,153
Δ% to Base Case					
Project Costs	**Incr'l Benefits**	**Benefits delayed by**			
+ 10%			Increase in the cost of inputs.	8.4%	57,015
+ 20%				8.2%	53,877
	- 20%		Reduced producer prices / demand.	8.1%	41,846
	- 40%		Community infrastructure investments are not directed to areas of highest nutritional vulnerability. Technical coordination is not responsive to the grassroots level needs.	7.3%	23,540
+ 10%	- 10%		Combinations of the above	8.1%	47,862
+ 20%	- 20%			7.6%	35,571
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation	8.4%	54,400
		2 years		8.2%	48,976
		3 years		8.0%	43,864
Base case	- 20%	1 year	Inadequate skills base amongst local service providers leads to delays and additional costs. Contract farming and cooperative laws do not eventuate leading to inequitable treatment and reduced incentives for farmer groups/ associations and cooperatives.	7.6%	34,106
		2 years		7.4%	29,768
		3 years		7.3%	25,678
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	7.2%	26,630
Switching Values \1					
Costs		**192%**		6.0%	-
Benefits		**-66%**		6.0%	-

\1 Percent change in cost and/or benefit streams to obtain an EIRR of 6 percent, i.e., economic viability threshold.

Figure H – Switching Value Frontier



Source: SSFSNP Economic Model

FINANCIAL ANALYSIS

A. Scope and Purpose

1. The range of SSFSNP activities across the target districts is expected to result in investments in crop and livestock production, natural resource management and income generation activities. These will be locally identified and may take the form of individual, family, group and community endeavours. This section investigates the financial viability of adopting proposed project interventions. While the main effort is directed at the development of illustrative household models a number of other investments that examine specific group and / or community projects are also included. The illustrative farm models describe an "Upland" household and a "Valley Bottom" household. The analysis examines the impact on income, farm family benefits and labour of the gradual adoption the SSFSNP technologies promoted to achieve sustainable climate-adapted and nutrition sensitive agriculture. These models combine with assumptions on the district and village roll out to development a project financial appraisal.

B. Development of sustainable climate-adapted and nutrition sensitive agriculture

2. The objectives of the farm household financial analysis are to: (i) demonstrate the viability of the investment strategies proposed under the sustainable, natural resource based livelihoods component using illustrative household models; (ii) using these models, investigate the impact on labour requirements especially the gender balance; and, (iii) analyse the impact of these improvements over the Project area to assess the overall SSFSNP financial viability.

3. The methodology employed involves: (i) developing typical crop, animal and agroforestry production models that are being promoted; (ii) combining these production models to develop illustrative household models; (iii) aggregating the illustrative household models according to the participation sequence to develop a measure of overall Project impact.

4. The focus of the analysis are the investment strategies fostered under Output 4 – Profitable investment in nutrient-sensitive agriculture. These strategies drive the incremental production shown in the models described below. As noted in the project description, the Village Development Fund is expected to result in, *inter alia*: irrigation, including multi-purpose village water supply and micro and drip irrigation, village roads, marketing facilities, soil and water protection, fish ponds and aquatic resource protection for sustainable harvesting, etc. In the case of irrigation, communities would be provided implementation support for the construction and take responsibility for the operation and maintenance. This would include the establishment of user groups and a sustainable user fee structure where appropriate.

5. The financial analysis is based on prices and costs collected by the SSFSNP Final Design Mission in September 2015. The key yield and price assumptions for the financial analysis are detailed in Appendix 10, Annex 1, Table 1.

C. Assumptions

6. The context and key assumptions underpinning the production and household models are summarised as follows:

- The target group households like other rural households in the Project area primarily practice subsistence agriculture such as rain-fed rice with mixed cropping and maize in upland areas and, where irrigated land is available, grow lowland paddy rice on a limited scale. 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. Two other key forms of production are livestock rearing (representing around 40% of household income) and exploitation of non-timber forest products and agroforestry.
- Availability of family labour for any extended and expanded agricultural operations is limited. Households do not often hire labour for their farming operations except when establishing new plantation crops, while some wealthier farmers hire labour for their

coffee and other industrial tree crop plantations. Agricultural machinery in the northern uplands is becoming more common for example walking tractors and brush cutters. Farmers occupying valley bottoms use paddy harvesting machines 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 seeds to the 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 without increasing pressure on labour demand. The paddy irrigation models assume purchased improved seed.
- With training, technology support and input services, the rural households are capable of undertaking improved farming practices and thereby enhancing production 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 maize. The intensification of maize production in the upland area has increased the risk of soil surface erosion on sloping land.
- In the current situation, all marketable surpluses are sold fresh in local markets or ex-farm to local traders or middlemen. Households currently 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 larger in the case of perishable commodities such as vegetables.

D. Illustrative farm models

7. Crop, animal and forestry models have been developed to reflect the potential directions resulting from the VDF investments. These models are based on a generalised farming calendar which is provided in Appendix 10, Annex 1, Table 2. The activity models that comprise the without and with project situations for the Valley Bottom and Upland illustrative models are shown in Table 1. [90] The two illustrative household models are described further below.

[90] All modelling undertaken in Farmod 4.02 software. FARMOD file and Excel outputs are contains in the Project File.

Table 1 – Illustrative Farm Models

Model / Activity	Scenario	
	Without Project	**With Project**
"Valley Bottom" Household Model		
Home garden	Existing home vegetable (0.01 ha)	Improved home vegetable production (0.01 ha)
Rice production	Existing rainfed rice (1.0 ha)	Improved paddy rice production (1.0 ha)
Watermelon	(Not practiced)	Introduced as a summer cash crop (0.5 ha)
Maize	(Not practiced)	Maize crop intercropped with watermelon (0.5 ha)
Pig breeding	Traditional pig production	Improved pig production
Forestry activity	(Not practiced)	Cardamom production established (0.5 ha)
Upland Household Model		
Home garden	Existing home vegetable production (0.01 ha)	Improved home vegetable production with micro-irrigation (0.01 ha)
Rainfed upland rice	Existing upland rice production (1.0 ha)	Improved upland rice production (1.0 ha)
Maize	Traditional maize production (0.5 ha)	Improved maize production (0.5 ha)
Forage crop	(Not practised)	Pigeon pea intercropped with maize (0.5 ha)
Fish production	(Not practised)	Fish pond construction and operation (150 m^2)
Forestry activity	Fresh bamboo shoot harvesting and sale (0.5 ha)	Sliced and dried bamboo shoot production and sale (0.5 ha)

8. "Valley Bottom" model: In this model it is envisaged that small scale irrigation investment would enable land currently under rainfed rice production in the lowlands to be converted to irrigated paddy. The irrigation would also facilitate rotations such as maize/watermelons followed by rice. The introduction of a summer cash crop is an important innovation with significant cashflow implications. The irrigation would also facilitate improved home gardens. Complementing the cropping activities would be improved livestock production (pig breeding) and the household's participation in a community forest based activity (cardamom).

9. "Upland" model: This model illustrates the application of innovative and climate adapted improvements to upland agriculture focused on sustainable productivity increases. In this case, the existing upland rice and maize production would be replaced by improved upland rice and maize varieties and supported with advice on improved practices. Included in the crop rotation would be a leguminous forage crop. The introduction of a forage crop into the farming system would both improve soil fertility provide income from forage seed production and reduce the potential for soil erosion. [91] The driver for improvements in maize production is in part due to increase in demand for either local feed mills or export. Improved home gardens using micro-irrigation techniques and the introduction of fish production are two other important features of this model.

E. Results

10. **Production models** The prices of the key outputs and inputs are shown in Appendix 10, Annex 1, Table 3. [92] The yields by enterprise and farm model are shown in Table 2 and gross margins for the illustrative crops are shown below in Table 3.

[91] See Forage development under Output, Activity 2.
[92] Yield, inputs and financial budgets of the production models are included in the Project File, including the SSFSNP FARMOD file.

Table 2 – Yields by enterprise and farm model

Model / Enterprise	Unit	WOP [1]	With Project					Estimated percentage agriculture area per model (%)
			PY 1	PY 2	PY 3	PY 4	PY 5	
Upland Model								
Vegetables	kg/ha	2,000	3,250	3,500	3,750	4,000	4,000	4
Upland rice	kg/ha	800	1,000	1,200	1,400	1,600	1,800	50
Maize - upland	kg/ha	3,000	3,000	3,500	4,500	4,500	4,500	15
Pigeon pea	kg/ha	-	100	150	200	250	275	<1
Fish	kg/HH	-	-	2,250	9,000	15,750	18,000	NA
Bamboo shoots	kg/HH	-	100	150	300	300	300	NA
Valley Bottom Model								
Cardamom	kg/ha	-	-	-	50	100	100	<1
Vegetables	kg/ha	3,000	3,250	3,500	3,750	4,000	4,000	8
Rainfed rice	kg/ha	3,200	-	-	-	-	-	20
Paddy rice	kg/ha	-	3,000	3,500	4,000	4,000	4,000	15
Water melons	kg/ha	-	5,000	5,500	6,000	6,500	7,000	2
Maize	kg/ha	-	3,000	3,500	4,500	5,000	5,000	20
Piglets	kg/HH	122	222	222	222	222	222	NA

\1 Without project - existing

Table 3 – Crop and Activity Gross Margins

Model / Activity		LAK '000 [\1]		% increase
	Model	Without Project	With Project	
"Valley Bottom" Farm Model				
Home garden	Per ha	15,000	17,320	15%
Rice	Per ha	3,166	8,068	154%
Watermelon	Per ha	-	10,900	-
Maize	Per ha	-	4,476	-
Pig breeding	Activity	2,500	4,510	80%
Cardamom	Activity	-	4,500	-
Upland Farm Model				
Home garden with micro irrigation	Per ha	10,000	17,120	71%
Rainfed upland rice	Per ha	1,280	2,460	92%
Maize [\2]	Per ha	3,500	4,220	20%
Pigeon pea	Per ha	-	3,168	-
Fish production	Per ha	-	445,880	-
Bamboo collection	Activity	-	1,050	-

\1 With project reflects full development
\2 Without project yield is an average

11. **Farm household returns** The introduction of new agricultural practices and technologies is phased in order to avoid the need for significant household cash contributions. Where credit is required for seasonal inputs, a provision for short term credit at 13% of 100% of the incremental requirements is included. Results of the farm model financial analysis are shown in Tables 4 and 5

below. Output tables of the detailing production and inputs, as well as the financial budgets are provided in Appendix 10, Annex 1, Tables 4 to 7.

12. In the case of the Upland household model the incremental annual net income is USD 600 (LAK 4,600,000), an increase of around 270% over the existing situation. [93] The incremental farm family benefits (accounting for the value of home consumption) is estimated at USD 1,500 per year (LAK 11,400,000) over the existing situation. The equivalent analysis for the Valley Bottom farm model indicates the incremental annual net income is USD 1,700 (LAK 13,800,000) an increase of around 470% over the existing situation. The incremental farm family benefits increase by USD 1,900 per year (LAK 14,700,000) over the existing situation.

13. The returns to family labour show a similar positive increase with incremental returns per family labour day at USD 7 (LAK 56,000) and USD 4 (LAK 28,000) for the Upland and Valley Bottom farm models respectively. The incremental returns for an incremental day of labour is the marginal value of an additional day of input. An additional day of input into the adopted technologies and practices in the Upland farm returns USD 40 (LAK 325,000) while the figure for the Valley Bottom model is USD 20 (LAK 124,000) per day

14. Overall, the greater opportunity for paddy rice production and cash crops in the valley bottom means that this is a more profitable model than the upland model. Both nevertheless, indicate the value of the agriculture-based nutrition interventions.

Table 4 – Indicative Returns Upland Farm Model

Indicator \1		**Existing**	**New**	**Increment**	**% Increase**
Net income	LAK '000	1,700	6,300	4,600	271%
	USD	200	800	600	
Farm Family Benefits after Financing	LAK '000	3,500	14,900	11,400	326%
	USD	400	1,900	1,500	
Returns per Family-Day of Labour	LAK '000	23	79	56	251%
	USD	3	10	7	
Incremental Returns per Incremental Family-Day of Labour	LAK '000		325		
	USD		40		

\1 A comparison of existing situation and that at full development.

Table 5 – Indicative Returns Valley Bottom Farm Model

Indicator \1		**Existing**	**New**	**Increment**	**% Increase**
Net income	LAK '000	2,900	16,700	13,800	476%
	USD	400	2,100	1,700	
Farm Family Benefits after Financing	LAK '000	8,300	23,000	14,700	177%
	USD	1,000	2,900	1,900	
Returns per Family-Day of Labour	LAK '000	65	93	28	44%
	USD	8	12	4	
Incremental Returns per Incremental Family-Day of Labour	LAK '000		124		
	USD		20		

\1 A comparison of Existing situation and New at full development.

15. **Labour Impacts.** In addition to estimating the production achieved and inputs required, the labour requirements for each task in the annual production cycles were estimated as part of the model

[93] Net income equals to FARMOD "Cash Flow After Finance" line item in the Financial Budget output.

specification. These requirements are differentiated by gender. The labour requirements across the activities are aggregated in the same manner as the production and financial information. The approach allows an examination of: (i) the total labour impact; (ii) the labour impacts by gender; (iii) the distribution of labour needs by month; and, (iv) the degree of utilisation of family labour.

16. Total and Gender Impacts. The results of the labour analysis in the form of three key indicators are shown in Table 6 below. The indicators are the existing, new and incremental labour required by gender for the two household types. The modelling indicates: (i) the new technology requires increases in the labour requirements in both farm types; (ii) of the two farm types the Valley Bottom model has the greater incremental increase at 110 person days (85%) per annum as opposed to 33 person days (21%) per annum for the Upland farm type - this is principally due to the inclusion of two new field crops in maize and watermelons; (iii) the proportional increase for female labour in both farm types is greater than male, but this is within the labour availability (see below); and, (iv) the gender balance within both farm types moving from existing to new technologies remains largely unchanged.

Table 6 – Labour Analysis

			Upland Model	Valley Bottom Model
Female	Existing	person days	64	60
	New	person days	83	114
	Incremental	person days	18	54
	% increase	%	29%	90%
Male	Existing	person days	89	69
	New	person days	104	125
	Incremental	person days	15	56
	% increase	%	17%	80%
Total	Existing	person days	154	129
	New	person days	187	239
	Incremental	person days	33	110
	% increase	%	21%	85%

Source: SSFSNP FARMOD Labour model

17. Distribution of Labour Impacts The analysis of the labour implications of these two models also examined annual distribution of the additional labour needed or labour saved by gender. Figure 1 below presents the estimated incremental monthly labour inputs by gender for the Upland household model. The levels of additional labour reflect the extra land preparation, planting activities and harvesting needs resulting from the adoption of the crops described above. [94] Overall there is around a 20% increase of the labour inputs required largely due to the intensification of the existing cropping regime plus livestock and forestry activities.

[94] 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 – Upland Model

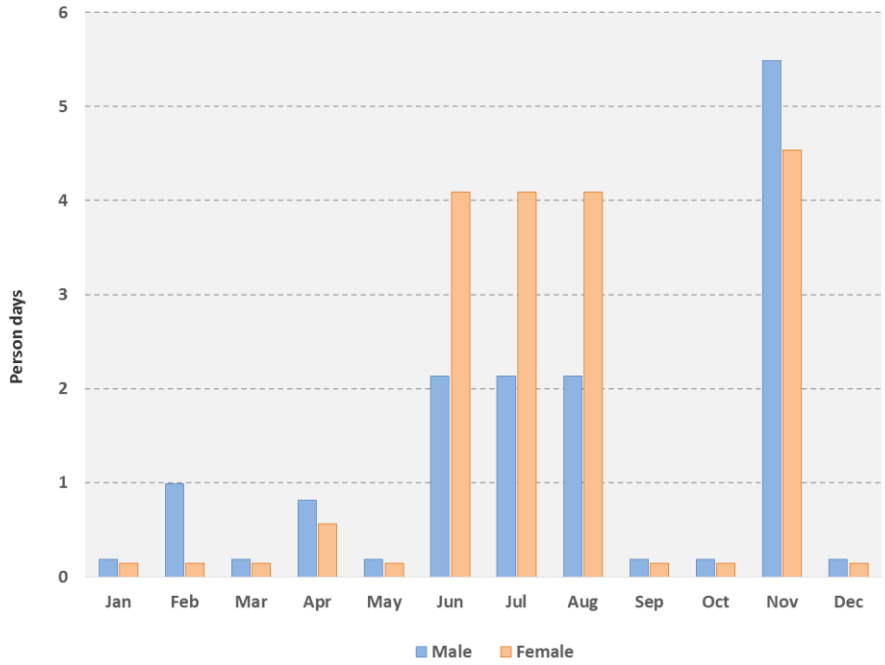
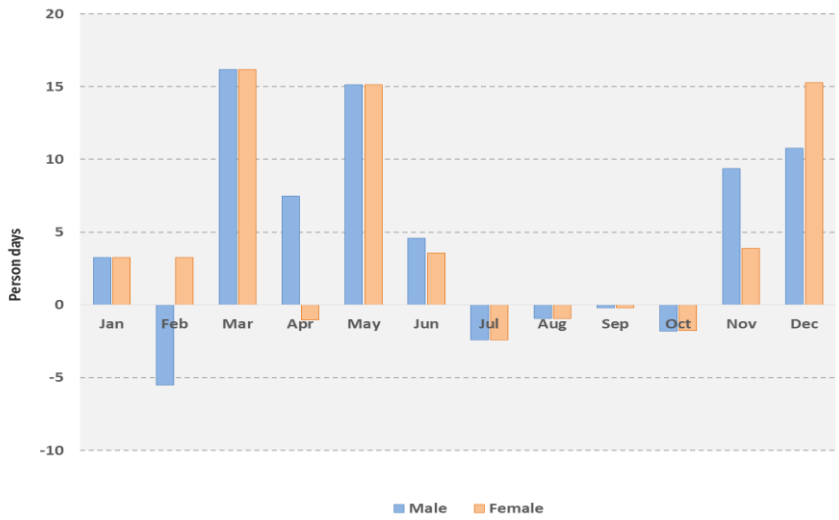


Figure 2 – Incremental labour changes – Valley Bottom Model



18. The Valley Bottom model shown in Figure 2 by contrast, replaces an existing rainfed rice production model with a paddy rice model. The labour consequences of this are significant as additional resources are required during the nursery and planting activities for paddy. The need for weeding however, is eliminated thus freeing up family labour from June to October. The inclusion of the cash and forage crops puts a new demand on the household during the subsequent dry season cropping cycle.

19. Household Labour Utilisation A final aspect for consideration in this labour analysis is the impact of the incremental labour changes on overall household labour availability. Due to a host of factors, labour availability can vary considerably between households. By applying some conservative

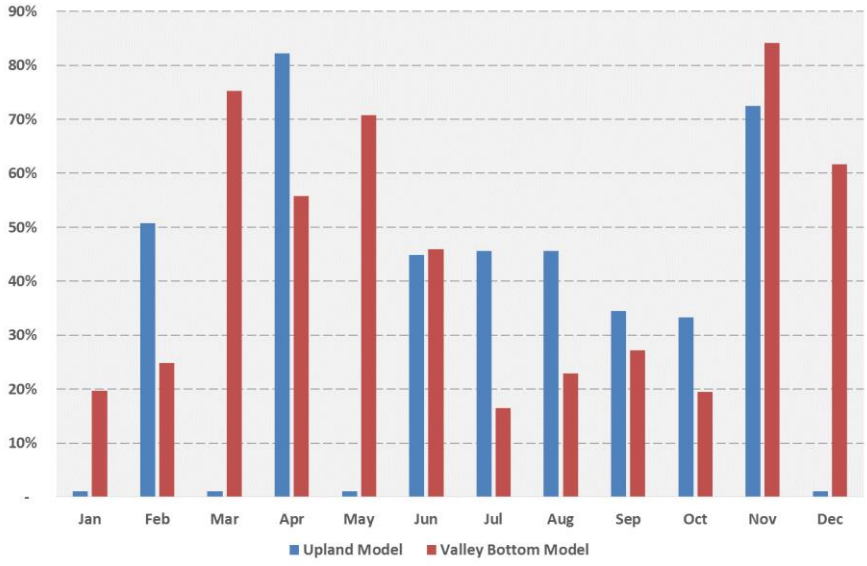
estimates[95] and using the labour requirement figures from the analysis outlined above, an assessment was made of the proportion of the estimated available labour that is utilised following the adoption SSFSNP interventions described. The results are shown in Table 7 and illustrated in Figure 3 below

Table 7 – Household Labour Utilisation

Month	Availability (person days)	Proportion of available labour utilised	
		Upland Model	Valley Bottom Model
Jan	46.5	1%	20%
Feb	42.0	51%	25%
Mar	46.5	1%	75%
Apr	45.0	82%	56%
May	46.5	1%	71%
Jun	45.0	45%	46%
Jul	46.5	46%	16%
Aug	46.5	46%	23%
Sep	45.0	34%	27%
Oct	46.5	33%	19%
Nov	45.0	72%	84%
Dec	46.5	1%	62%

20. Table 7 and Figure 3 illustrate that the labour demands are within the estimated monthly labour availability. Where requirements could be in excess of available labour (e.g. November in the Valley Bottom model 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 animal production and forest produce processing. The issue of labour impacts both in terms of the impact on women and the total household would benefit from more research.

Figure 3 – Household Labour Utilisation



21. **Project Perspective.** In order to understand the overall impact of the proposed interventions on a project wide basis, a projection is made of the financial returns based on the expected number of participating households. The phased entry of villages into the SSFSNP is shown in Table 8. The total

[95] 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

number of villages is expected to reach 400 villages by the fourth year of the project. Assuming 85 households per village, the cumulative number of households in contact with the SSFSNP is 34,000 by the project year 4.

Table 8 - Village and Household Participation Assumptions

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6
Villages						
Incremental	40	80	120	160	-	-
Cumulative	40	120	240	400	400	400
Participating households \1						
Incremental	3,400	6,800	10,200	13,600	-	-
Cumulative	3,400	10,200	20,400	34,000	34,000	34,000

\1 Assuming 85 households per village

22. For the purposes of project level financial modelling the villages are divided into a Valley Bottom type and an Upland type and from that the number of participating households for each model type determined (see Table 9). The financial modelling assumes a 60% household adoption rate in each village.

Table 9 – Village and Household Participation and Adoption Assumptions

	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6
Villages – incremental	40	80	120	160	-	-
Villages - cumulative	40	120	240	400	400	400
Village breakdown \1						
Valley Bottom – incremental	10	20	30	40	-	-
Upland – incremental	30	60	90	120	-	-
Households by model \2						
Valley Bottom – incremental	850	1,700	2,550	3,400	-	-
Upland – incremental	2,550	5,100	7,650	10,200	-	-
Participating households \3						
Valley Bottom – incremental	510	1,020	1,530	2,040	-	-
Upland – incremental	1,530	3,060	4,590	6,120	-	-
Valley Bottom – cumulative	510	1,530	3,060	5,100	5,100	5,100
Upland – cumulative	1,530	4,590	9,180	15,300	15,300	15,300
Total - cumulative	**2,040**	**6,120**	**12,240**	**20,400**	**20,400**	**20,400**

\1 Assumes 25% villages in lowland and 75% in upland
\2 Assumes 85 households per village
\3 Assumes 60% household participation per village

23. The incremental financial returns per year for the two illustrative models described above are aggregated assuming incremental participating households shown in Table 9. A comparison of the incremental financial income against the SSFSNP incremental financial costs (including a continuing recurrent cost component) produces a financial internal rate of return of 53% and a net present value of USD 139 million using a 10% discount rate applied over 20 years. This analysis gives a clear indication that it is rational to invest in the activities described.

F. Supporting models

24. The financial investigations include two addition models to illustrate the viability of a livestock production activity (cattle fattening) and the potential returns from investment in rural infrastructure. Both investments potentially financed under Output 4 Profitable investment in nutrient-sensitive agriculture.

25. **Cattle fattening enterprise** – In the Northern provinces, Xiang Khouang in particular, cattle production is an import enterprise. [96] A typical cattle fattening enterprise would involve the purchase of animals in the range of 120 to 140 kg liveweight (LW) for around LAK 35,000/kg. These animal would be grown out over a period of 6 to 7 months on home grown feeds including Napier grass, maize, dried cassava and rice husk. Some preparation of feeds is undertaken with grinding mills. Animal are sold on to Vietnamese buyers at around 250-300 kg LW for LAK 40,000/kg. Inputs would include casual labour over the period to assist with feeding and husbandry. The gross margin per head for this has been estimated at LAK 1.23 million (USD 150) per beast. A benefit cost analysis that includes investments in cattle shed, other structures and the necessary equipment over 20 years indicates a positive NPV at 10% of LAK 88.6 million. [97]

26. **Community infrastructure investment** – The community-driven village development fund will co-finance village-level investments in infrastructure supporting nutrition-rich agriculture. Such investments could include, *inter alia*, irrigation, including multi-purpose village water supply and micro and drip irrigation, village roads, marketing facilities, soil and water protection, fish ponds and aquatic resource protection for sustainable harvesting, etc. An analysis examines the returns following the establishment or rehabilitation of a rural road to illustrate the potential of such investments. The potential benefits from rural road investments are summarised in Table 10. [98]

27. The case study developed is based on the inter-connection of 4 villages with approximately 340 households. The impacts of the construction of a new 6m wide gravel rural road are estimated over four activities: tea production, maize, vegetable and NTFP (bamboo) production. Two scenarios are presented: an upland model and "valley bottom" model and two investments types considered – a new construction and a rehabilitation. The estimated unit construction costs are shown below in Table 11. Rehabilitation costs are assumed at 60% of the construction costs. An annual provision for operation and maintenance is made at 2.4% of the investment costs.

Table 10 – Benefits from Rural Road Infrastructure

Potential benefits	Resulting from
Changed patterns of production/increased area	Introduction/expansion of higher value crops (e.g. fruits, vegetables, organic tea) which become financially viable due to improved market access and reduced losses.
Increased agricultural productivity	Increased availability and reduced cost of inputs.
	Increased access to support services, including extension.
Increased marketed output	Better access to markets due to improved accessibility throughout the year.
Increased producer prices	(i) Reduced transport costs; and (ii) higher quality of produce due to timely transportation and reduced losses during transport.

[96] This enterprise illustrates a potential activity under NNSPA Invention 18 Promotion of income generating activities.
[97] Details of this analysis is included in the Project File.
[98] The table shows benefits from a production perspective, other benefits from increased access to health and other social services, and information as well as improved profitability for transport operators are recognised but not included in this analysis.

Table 11 – Rural Road Construction Cost and Indicators

Cost Item	Valley Bottom		Upland	
	LAK million	USD	LAK million	USD
Civil works	160	20,000	200	25,000
Design and supervision \a	16	2,000	20	2,500
Contingency \b	32	4,000	40	5,000
Construction cost per km	**208**	**26,000**	**260**	**32,500**
Construction cost per road	1,040	130,000	1,300	162,500
Construction cost per household reached	3.1	382	3.8	478

\a 10% of civil works
\b 20% of civil work and design and supervision
\c Assumes 5km road
\d Assumes 340 households

28. The benefits are defined as the incremental value of production. Discounted cash flows are developed for each scenario and the net present value and internal rate of return calculated. A summary of the main assumptions is shown in Appendix 10, Annex 1, Table 8. The analysis reveals that the incremental revenue generated in each case outweighs the incremental costs leading to rates of return that justify the investment (refer to Table 12) both in the medium and longer term.

Table 12 – Results Rural Road Analysis

Scenario	Period of analysis	Valley Bottom		Upland	
		NPV \a (LAK'000)	IRR	NPV \a (LAK'000)	IRR
Road construction	10 years	728,990	25.5%	458,590	18.3%
	15 years	1,247,530	28.6%	967,640	22.2%
	20 years	1,569,510	29.3%	1,283,720	23.2%
Road rehabilitation	10 years	1,161,620	46.3%	999,380	36.4%
	15 years	1,695,360	47.7%	1,527,430	38.5%
	20 years	2,026,780	47.9%	1,855,300	38.8%

\a Discount rate 10%

29. **Contract Farming.** For the purposes of understanding the possible motivations for contract farming operators to invest and/or share the costs of, (e.g. extension services and rural infrastructure), a high level analysis (see Box 1) was undertaken. Such investments to support common farmer/investor interests will be possible under Output 5. SSFSNP will catalyse private sector agro-enterprise and contract farming investments in the project area by co-financing up to 49% of investments that generate incremental markets and value addition for raw material, leading to incremental production and increased income and job opportunities among rural households.

Box 1
Contract Farming – Investing in Sustained Production

A growing issue in the contract farming sector particularly in maize, is the sustainability of production given the environmental impacts in the upland areas. Many of the soil types require cautious management due to their weak structure, which leads to soil erosion and crust formation. Furthermore, decreasing fallow duration caused by government restrictions on shifting agriculture induces loss 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 inappropriate soil use, can be addressed by promoting sustainable agriculture practices, including leguminous fodder production, to increase both land and labour productivity. These practices, however, need to be developed, demonstrated and supported via rural infrastructure that facilitates input and product movements.

Given the vested interest that the contract farming operators have in ensuring supply, the question was posed: would financing of extension services and rural road infrastructure by contract farming investors offer a good return? The costs proposed were an extension agent's, annual salary, annual DSA and operating costs plus the construction and maintenance of a 10 kilometer road. These costs represent the investment required to extend new agronomic practices to the maize farmers and maintain access for efficient input supply and marketing of produce.

The benefits identified are the value of the avoided production losses. For this example, these losses are defined as the difference between: (a) the maize production area and yield being maintained over a 10-year period (with investment); and, (b) a decline in maize area and yield over a 10-year period (without investment). The area was forecast to decline from 100 ha by 5 ha per year to 55 ha by Year 10. Similarly, the maize yield was projected to decline from 4,000 to 3,100 kg/ha over the same period. The annual difference in production is valued at an average price of LAK 2,400/kg. The comparison of the incremental costs to the incremental benefits (value of avoided losses) over a 10 year reveals a positive NPV, and an IRR at 15% (>10% discount rate). This simple model demonstrates the value of avoided losses and how they provide justification for investments to address adverse impacts described.

ECONOMIC ANALYSIS

A. Approach

30. The analysis presented in this section departs from the conventional approach for economic appraisal of agriculture investment projects. Such an approach involves the conversion of costs from financial to economic terms and the definition of benefits through the aggregation of economic returns from indicative farm or area models. While this approach is possible, the diversity of the Project area's agro-ecological systems combined with the variety of emerging interventions and impacts

means that any farming systems model based on the aggregation of illustrative farm budgets, would be a highly generalised approximation. [99]

31. Given that the rational, at the core of the project is a reduction in under-nutrition, especially a reduction in stunting, a methodology has been developed that directly values the impact of the decline in stunting in terms of the longer term increase in human capital and the incremental life time earnings of beneficiary children. The methodology is informed by the emerging literature on the economics of nutrition, as well as economic appraisals from similar recent projects. [100]

B. Rational for investing to reduce stunting

32. The SSFSNP is designed to pilot new and existing approaches that will accelerate GoL achievement of national food and nutrition security. Malnutrition and food insecurity remain stubbornly high nationally, with stunting levels of children under five years, as high as 61 per cent in some Project provinces. The impact of this stunting is lifelong. Under-nutrition blights lives and undercuts social and economic development. Children who are chronically malnourished in the critical first thousand days, starting at conception, can suffer irreversible damage to their physical and mental development. Improving women's nutrition is critical to breaking the intergenerational cycle of under-nutrition and; given the negative impact that chronic under-nutrition has on health, productivity, educational attainment, and income-earning, its redress is essential to sustained national economic growth

33. The literature describes the economic benefits of improving nutrition in poor societies as being derived from two sources. [101] Firstly, the saving of resources that otherwise would have been used, in other words avoided costs. For example, the reduction in the resources required to deal with mortality or morbidity. The relationship between malnutrition and the risk of mortality is well established. The probability of infant mortality, for example, is estimated to be significantly higher for low birth weight (LBW) than for non-LBW infants. When the impact of poor early nutrition is added to the effect of LBW, it is estimated that 56% of child deaths in developing countries are attributable to malnutrition. In addition to increased mortality, malnutrition increases the risk of illnesses that impair the welfare of survivors, uses resources for health care services, and results in loss of time in the productive activities of caregivers.

34. The second form of benefits stemming from improved nutrition are the direct and indirect links between nutrition and productivity. These take two forms: physical and cognitive. Studies have shown that lower adult height is associated with reduced earnings as an adult. The association of productivity and stature may be due to capacity for manual labour, it may also reflect that height is a proxy for concomitant cognitive development.

35. The evidence points to at least three broad ways in which preschool nutritional status can affect cognitive function and education. Firstly, malnourished children may receive less education. This may be for several reasons: because their caregivers seek to invest less in their education, because schools use physical size as a rough indicator of school readiness, or because malnourished children may have higher rates of morbidity and thus greater rates of absenteeism from school. Secondly, malnutrition may delay entry into school, which also may reduce the total amount of schooling. Thirdly, malnutrition may reduce the capacity to learn. In part, this is a direct consequence of the impact of poor nutrition on cognitive development. Additionally, a hungry child may be less likely to pay attention in school and, thus, learn less even if he or she has no long-term impairment of intellectual ability. These 3 pathways interact; a child with reduced ability to learn will likely start school when older and spend less time in school as well as learn less while in class. This has long-term effects[102].

[99] A factor that further compounds the conventional economic analysis is the difficulty in the estimation of economic values in situations where traded items' border prices and domestic handling costs can vary considerably.
[100] World Bank (2014), Income Support Program for the Poorest, Bangladesh November 17 2014, Report No: PAD957
[101] Alderman, H., Behrman, J. R. and Hoddinott, J. 2007 "Economic and Nutritional Analyses Offer Substantial Synergies for Understanding Human Nutrition," J Nutr. 2007 March; 137(3): 537–544.
[102] Macours, K., N. Schady, and R. Vakis, 2012. "Cash Transfers, Behavioral Changes, and Cognitive Development in Early Childhood: Evidence from a Randomized Experiment," American Economic Journal: Applied Economics, American Economic Association, vol. 4(2), pages 247-73, April.

Furthermore, expectant mothers' attendance at sessions where nutrition and development awareness is coupled with growth monitoring and promotion has been shown to have a significant positive impact on average monthly lifetime earnings. [103]

36. Economic frameworks have been established to investigate economic rationale for investments that reduce stunting. One such study showed benefit cost ratios ranging from 3.6 to 48.[104] While Lao PDR was not included in that analysis, the study cited the benefit cost ratio for investments in the reduction of stunting in Vietnam was 35.5, meaning that each dollar invested in programs to remove stunting is estimated to generate USD 35.50 in economic returns.

C. Cost Benefit Analysis

37. The cost benefit analysis presented is based on the connection between nutrition, health, education and income earning described above. It is assumed that SSFSNP interventions have an impact on the beneficiary children's ability to complete school and thereby earn higher wages in their adult life[105]. The analysis compares the discounted stream of benefits in the form of incremental expected lifetime income plus avoided health care costs to the discounted stream of SSFSNP costs.

38. The total costs of the project are represented by the economic costs of the SSFSNP. Economic costs of the project investments are net of duties, taxes and price contingencies. Ongoing recurrent costs are excluded as it is assumed that the continuing benefits are due to behavioural change in the community which is sustained by the gradual increase in wealth of the rural areas and the country as a whole.

39. The benefit modelling is driven by the recruitment of villages into the SSFSNP project. For the purposes of the economic model the entry of the villages and household is lagged as the first year to reflect the timing of the subsequent births (refer to Table 13).

Table 13 - Village and Household Participation Assumptions

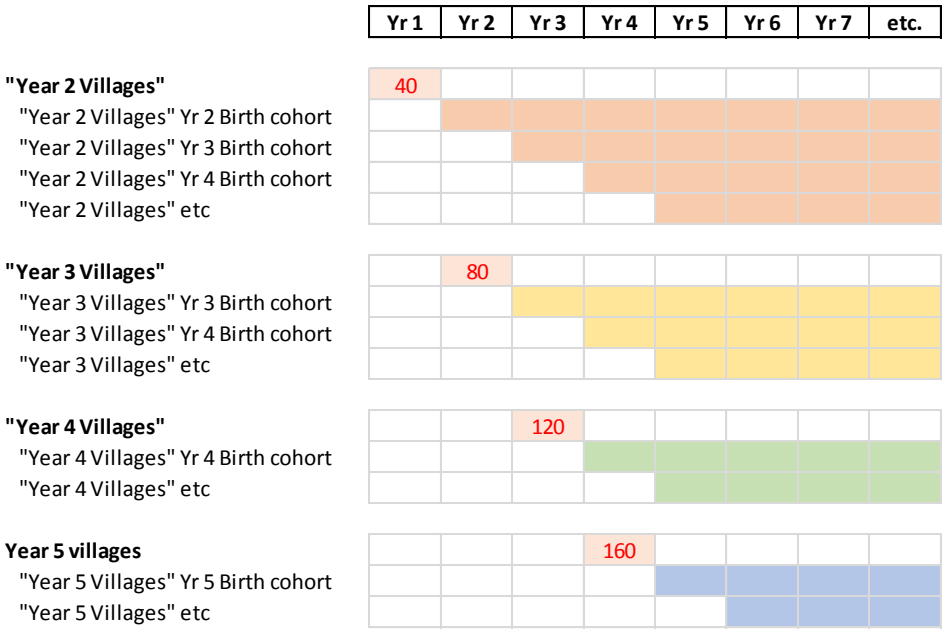
	PY 1	PY 2	PY 3	PY 4	PY 5	PY 6
Villages						
Incremental	-	40	80	120	160	-
Cumulative	-	40	120	240	400	400
Participating households \1						
Incremental	-	2,040	4,080	6,120	8,160	-
Cumulative	-	2,040	6,120	12,240	20,400	20,400

\1 Assuming 85 households per village and 60% adoption rate

40. The key feature of the model is the ability to be able to identify and estimate the number of stunted and non-stunted individuals in each of the target villages in their year of entry into the project and for subsequent years in both the "without the project" (WOP) and "with the project" (WP) scenarios. This is facilitated through the modelling structure illustrated below in Figure 4.

[103] Gertler, P., J. Heckman, R. Pinteo, A., Zanolini, C. Vermeerche, S. Walkerd, S. Chang-Lopez, and S. Grantham-McGregor, 2013. "Labor Market Returns to Early Childhood Stimulation: a 20-year Follow-up to an Experimental Intervention in Jamaica," World Bank Policy Research Working Paper No. 6529.
[104] Hoddinott, John, Harold Alderman, Jere R. Behrman, Lawrence Haddad, and Susan Horton. 2013. "The Economic Rationale for Investing in Stunting Reduction." Maternal & Child Nutrition 9 (S2): 69–82.
[105] It is noted that the mean years of schooling in 2012 was 4.6 while the expected years of schooling stands at 10.1 Human Development Report 2013. UNDP.

Figure 4 – Illustration of SSFSNP Village Entry and Birth Cohorts



41. The entry sequence of 400 villages is shown above in red for project years 2 to 5. The coloured bars indicate the entry into the population of the annual cohorts of births for the subsequent years. For each birth cohort the methodology develops an estimate of the stunted and non-stunted individuals recruited into the population for the without project (WOP) and with project (WP) scenarios. With an understanding of the numbers of stunted and non-stunted individuals and the income earning capacity for each category, a projection of annual WOP and WP earnings for each birth cohort is achieved. A key assumption is that behavioural to reduce stunting becomes permanent. Once aggregated over all cohorts and all villages, the difference between the WOP and WP scenarios is the incremental project benefits expressed in terms of incremental life time income.

42. The key assumptions and sources in the derivation of this estimate are shown below in Table 14. Extracts from the model illustrating the approach are provided in the Appendix 10, Annex 1, Table 9. [106]

Table 14 – Key Assumptions

Parameter	Notes
Persons per household	6.7 persons - the average for rural areas
Number of households per village	85 households - Range: 70 to 100
Population growth rate	2.1 per cent per annum
Crude birth rate	27 per 1,000 persons
Infant mortality	Commences at 54 per 1,000 births, aligns in subsequent years with the national targets.[107]
Child mortality Under 5's	Commence at 72 per 1,000 births - aligns in subsequent years with the national targets.
WOP stunting rate	Current stunting rate assumed at 60%. [108]

[106] A copy of the SSFNSP Economic Model is available in the Project File.
[107] Source: Lao PDR National Nutrition Strategy to 2025 & Plan of Action 2015-2020
[108] The Lao Social Indicator Survey LSIS (MICS/DHS) 2011-12 - page 169. Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height, Lao PDR 2011-12. Table NU.1: Nutritional status of children – Poorest wealth Quintile. This figure aligned with recent UNICEF figure for the selected provinces that range from 52.9% to 62.1%.

Parameter	Notes
	The stunting rate is adjusted annually to allow for background improvement. This reduction is estimated at 0.35% per year. [109] Stunting target is 26%. [110]
WP stunting rate	The WP stunting rate is a function of the background stunting rate for the year concerned and the reduction in stunting resulting from the SSFSNP activities. In the base case, this reduction is assumed at 2.5% per annum.
Income earning age	Age assumed at 15 years.
Working life	Assumed at 40 years.
GDP per working person	(GDP per capita / (Total population x Proportion of population aged 15 to 64 years)) x (1+ GDP growth rate). [111]
GDP per capita	USD 11,772 (Current) [112]
Total population	6,894,100 [113]
Proportion of population aged 15 to 64	61% [114]
GDP growth rate	3 per cent – while current and forecast rates are higher, 3% is assumed as a better estimator for the timeframe concerned.
Impact on annual earning	15% - This could be considered the impact of the combination of better cognitive function, school attendance, school completion and health.
Expenditure on health care per capita	USD 32 per year [115] The proposition is the annual health care costs are less for non-stunted individuals from better development and immune systems and function.
Proportion of per capita health expenditure saved	25% - consultant's estimate
Average life expectancy	68 years [116]
Period of analysis	80 years – sufficient to capture the life time earning of all individuals born during the SSFSNP implementation

43. In the manner outlined above (and described further in Appendix 10, Annex 1, Table 9) an estimate is developed of the lifetime income for stunted and non-stunted individuals both in the WOP and WP scenarios. Driving the distinction between the two scenarios are the differences in the stunting rate and the average incomes for stunted and non-stunted individuals. In the model it is assumed the non-stunted individuals would have as much as a 15% increment on their annual salary due to better rates of school attendance/completion, better cognitive ability and better health.

44. The model also recognises that there are children under 2 years of age in the village populations as a village enters the SSFSNP. These children can also benefit from the project interventions. This number is approximated by taking two thirds of the estimated births in the village at the time of entry. Separate projections are made for this cohort.

[109] Based on Figure 2b – National trends of stunting, underweight, and wasting among children under five years of age in Lao PDR. Source: NNSPA 2015-2025 v2.0(8-6-15)
[110] Aligns with the target in Lao PDR National Nutrition Strategy to 2025 & Plan of Action 2015-2020, Table 1 page 21.
[111] The proxy for annual earnings is the GDP per working person. This figure is derived from the GDP for Lao PDR currently USD 11,772 million and the population of working age. The later parameter being a function of the total population and the percentage of the population of working age (15 to 64 years of age). See subsequent footnotes.
[112] Source: World Bank 2015 Data http://data.worldbank.org/indicator/NY.GDP.MKTP.CD/countries Accessed 15.09.15
[113] Source: World Bank 2015 Data http://data.worldbank.org/indicator/SP.POP.TOTL . Accessed 15.09.15
[114] Source: World Bank 2015 Data http://data.worldbank.org/indicator/SP.POP.1564.TO.ZS. Accessed 15.09.15
[115] Source: WHO http://apps.who.int/nha/database Accessed 15.09.15
[116] Source: World Bank 2015 Data http://data.worldbank.org/indicator/SP.DYN.LE00.FE.IN/countries Accessed 15.09.15

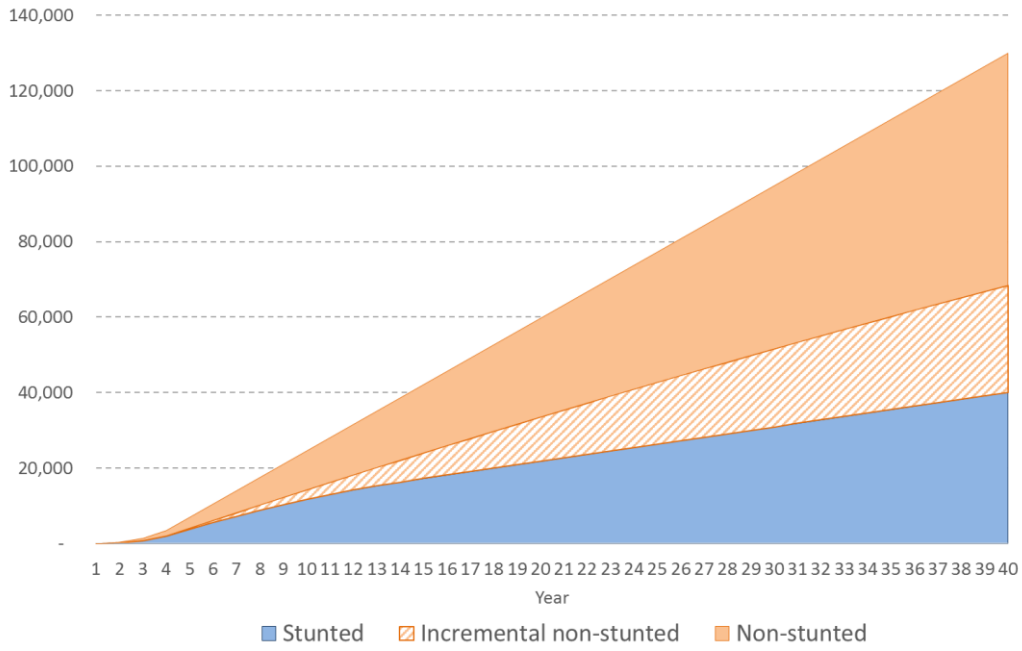
45. A further benefit included in the analysis is the **avoided health care** costs for those individuals for which stunting is averted. This saving is assumed as a lifetime benefit. The latest available estimates of the health expenditure per capita for Lao PDR indicates a cost of USD 32 per annum ($15/16 for 2013). [117] For the purpose of this analysis 25% of this cost or USD 8 per individual per year is assumed.

46. The incremental benefit model forecasts the income and avoided health care costs for the under 2's and successive years of birth cohorts for each set of villages entering the project. Once behavioural change is has taken place this benefit in theory persists into the future. This is illustrated in the extract from the model in Appendix 10, Annex 1, Table 10. The table shows the derivation of the incremental income and avoided health care costs for the first two birth cohorts of the 40 villages entering the project in the second year.

D. Results

47. **Reduction in Stunting** The impact of the SSFSNP interventions on the rate of stunting in the 400 targeted villages over 40 years is shown in Figure 5 below. The graph shows the projection of the births (adjusted for mortality losses) in the 400 target villages over the next 40 years. The total addition to the population by Year 40 is approximately 130,000 individuals.

Figure 5 – Projected SSFSNP Impact on Stunting



Source: SSFSNP Economic Model

48. The graph above shows the WP scenario with the individuals that would have otherwise been stunted shown as "incremental non-stunted". Note that this result indicates the base case configuration in the model with average households per village at 85, HH adoption rate at 60% and the annual reduction in stunting at 2.5% per annum. The proportion of stunting in the target villages for the WOP and WP scenarios for this configuration is shown in Table 15.

[117] World Health Organization Global Health Expenditure database http://apps.who.int/nha/database Accessed 18.07.15

Table 15 – Proportion of Stunting With and Without Project

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 10	Yr 20	Yr 30	Yr 40
Without project										
Stunted	128	589	1,594	3,362	5,422	7,470	15,537	34,843	52,919	69,765
Non-stunted	86	397	1,087	2,318	3,774	5,241	11,234	27,078	44,153	62,457
With project										
Stunted	123	564	1,519	3,178	5,065	6,851	12,994	23,055	32,194	41,334
Non-stunted	91	421	1,162	2,502	4,131	5,860	13,777	38,866	64,878	90,889
WP reduction in stunting	5	25	75	184	358	619	2,543	11,788	20,725	28,432

Source: SSNSFP Economic Model, Figures represent numbers of individuals. Selected years.

49. The build-up of the incremental income driven by the reduction in stunting is summarised in Table 16 below. The table indicates the incremental income for selected years for each of the four years of village recruitment into the project. It includes the income estimates from both the Under 2's present at village entry and the subsequent birth cohorts. Incremental income commences in Year 15 in accordance with the assumption on working age.

Table 16 – Incremental Income (USD'000)

	Y 15	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20	Yr 25	Yr 30	Yr 35	Yr 40
Year 1 villages	3	4	4	4	4	4	5	5	6	7
Year 2 villages	-	13	25	43	69	103	412	967	1,666	2,522
Year 3 villages	-	-	24	49	88	143	692	1,779	3,182	4,906
Year 4 villages	-	-	-	35	75	138	855	2,419	4,530	7,125
Year 5 villages	-	-	-	-	27	82	888	2,850	5,665	9,132
Total incremental income	3	17	52	132	263	469	2,851	8,020	15,049	23,692

Source: SSNSFP Economic Model, Selected years.

E. Economic viability

50. Three indicators have been used to assess the overall performance of the project. These are (i) the economic internal rate of return (EIRR), (ii) the net present value (NPV) and the benefit cost ratio (BCR). These were estimated using cash flow of the incremental benefit and cost streams consistent with analysis of lifetime earnings. The overall SSFSNP project EIRR is 8.7 per cent. The estimated NPV at a 6 per cent discount rate is LAK 481,220,000 million (USD 60.153 million). The BCR of 2.92 indicating a return of approximately 3 dollars for every dollar invested. These results indicate that the project investments yield a positive rate of return. [118]

51. The main identified risks that may affect the economic outcome of the Project area are shown in Table 17. A sensitivity analysis has been conducted to assess the potential impact of these risks resulting: in (a) reduced benefits; (b) increased costs; and/or (c) delayed benefits (see Table 18).

[118] A social discount rate of 6% is assume consistent with recent WB estimates. Source: World Bank Lao PDR Development Report 2010 Natural Resource Management for Sustainable Development, Background Paper, Wealth and Sustainability. http://siteresources.worldbank.org/LAOPRDEXTN/Resources/293683-1301084874098/LDR2010_Wealth_and_Sustainability.pdf Accessed 11.10.15

Table 17 – Overview of Main Project Risks affecting Project Economic Outcome

Risk category	Risk	Likelihood/ severity	Potential impact reflected in sensitivity analysis		
			Reduced benefits	Increased costs	Delayed benefits
Economy and Market Risks	External shocks to macro economy.	M/H	X	X	X
	Increase cost of inputs.	L/H		X	
	Reduced producer prices.	L/H	X		
	Reduced demand.	L/H	X		
Institutional Risks	Community infrastructure investments are not directed to areas of highest nutritional vulnerability.	M/M	X		
	Technical coordination is not responsive to the grassroots level needs.	L/H	X		
	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation	M/M			X
	Inadequate skills base amongst local service providers leads to delays and reduced benefits.	H/H	X		X
	Improved contract farming and cooperative laws do not eventuate leading to inequitable treatment and reduced incentives for farmer groups/ associations and cooperatives.	M/H	X		X
Climate Risks	Climate-change and disaster impacts.	M/H	X	X	X

52. An increase in programme costs by 10 per cent will reduce the EIRR to 8.4 per cent, while a decrease in overall programme benefits by 20 per cent will result in an EIRR of 8.1 per cent. A one-year delay in benefits reduces the EIRR to 8.4 per cent and a two-year delay to 8.2 per cent. These impacts in combination do not reduce the EIRR to below the 6 per cent discount rate indicating the robust nature of the investment. The switching values show that the programme will remain economically viable if benefits decreased by 66 per cent or programme costs increased by 192 per cent. Table 18 below provides an overview of the various scenarios of the sensitivity analysis and indicates the economic viability of the Project. Based on these results it is fair to conclude that the investment is worthwhile.

Table 18 – SSNSFP Economic Model Sensitivity Analysis

Scenario			Link to Risk Matrix	EIRR	ENPV (USD '000)
Base Case				8.7%	60,153
Δ% to Base Case					
Project Costs	**Incr'l Benefits**	**Benefits delayed by**			
+ 10%			Increase in the cost of inputs.	8.4%	57,015
+ 20%				8.2%	53,877
	- 20%		Reduced producer prices / demand.	8.1%	41,846
	- 40%		Community infrastructure investments are not directed to areas of highest nutritional vulnerability. Technical coordination is not responsive to the grassroots level needs.	7.3%	23,540
+ 10%	- 10%		Combinations of the above	8.1%	47,862
+ 20%	- 20%			7.6%	35,571
Base Case	Base Case	1 year	Ineffective inter-institutional cooperation & dialogue on development issues means financing is not disbursed in a timely manner to support field implementation	8.4%	54,400
		2 years		8.2%	48,976
		3 years		8.0%	43,864
+10%	- 20%	1 year	Inadequate skills base amongst local service providers leads to delays and additional costs.	7.6%	34,106
		2 years	Contract farming and cooperative laws do not eventuate leading to inequitable treatment and reduced incentives for farmer groups/ associations and cooperatives.	7.4%	29,768
		3 years		7.3%	25,678
+ 20%	- 20%	2 years	Climate-change and disaster impacts. External shocks to macro economy.	7.2%	26,630
Switching Values \1					
Costs		**195%**		6.0%	-
Benefits		**-66%**		6.0%	-

\1 Percent change in cost and/or benefit streams to obtain an EIRR of 6 percent, i.e., economic viability threshold.

53. **Specific variable sensitivity.** In addition to the conventional sensitivity analysis presented above, the robustness of the model was examined under a range of variations to specific variables. The variables and the results are shown in Table 19. The figures in bold represent the base case presented above. A reduction to the lower estimate of the number of households per village to 70, coupled with a low 40% adoption rate, 2% annual stunting decline and a reduction in the income increment to between stunted and non-stunted individuals still produces a positive NPV. The other cases presented examine the magnitude of potential upside. Larger villages with 90% adoption, high rates of stunting reduction and income improvement indicate BCR around 9.

Table 19 – Specific Variable Sensitivity

	Value				
Parameter					
Average HH per village	70	**85**	85	100	100
HH adoption rate	40%	**60%**	60%	80%	90%
Annual WP stunting reduction	2.0%	**2.5%**	2.5%	3.0%	3.0%
Income increment	10%	**15%**	20%	20%	25%
Decision metric					
NPV @ 6% - USD'000	351	**60,153**	90,248	168,011	248,429
EIRR	6.0%	**8.7%**	9.4%	10.9%	11.9%
Benefit cost ratio	1.01 x	**2.92 x**	3.88 x	6.35 x	8.92 x

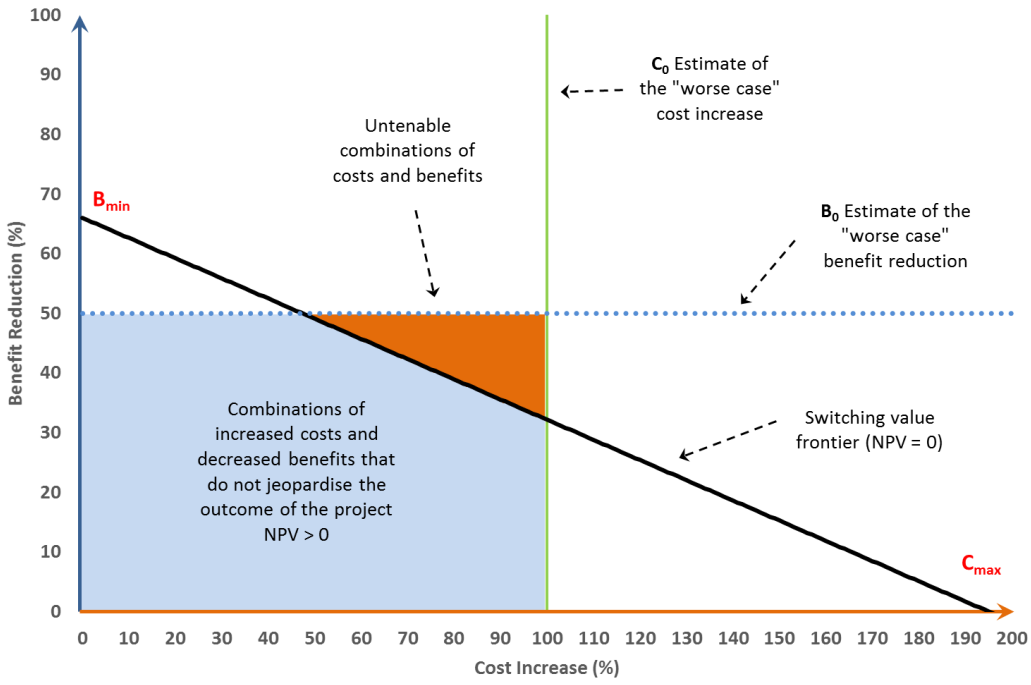
Source: SSNSFP Economic Model

54. This analysis is based on a comparison of the incremental cost and the incremental income resulting from the reduction in stunting within the targeted villages. Any other economic benefits that may accrue to other economic agents in the local and regional economy are therefore excluded. If these extra-village benefits are assumed to be at least equal, the incremental benefits derived from the target villages, the BCR approaches 6 and is consistent with the findings of studies referenced above.[119] This further consolidates the conclusion that SSFSNP is a worthwhile investment.

55. **Switching Value Frontier** Another way of looking at this analysis is through the graphic in Figure 6. [120] Here, variations in expected benefits and costs are represented in the vertical and horizontal axes respectively. Calculation of the switching values above identifies the maximum reduction in benefits (B_{min}) and the maximum increase in costs (C_{max}) that would result in an NPV of zero. Thus the *switching value frontier* (SVF), represented by the black line between B_{min} and C_{max} encloses all possible combinations of reduction in benefits and increase in costs that would bring the NPV to zero. The blue shaded area represents the set of all the different combinations of decrease in benefits and simultaneously increase in costs that would not endanger project viability.

56. By applying an estimate of the "most likely" worse case scenarios – in this case a 50 per cent reduction in benefits and a 100 per cent increase in costs – the orange area is defined. This represents all the diverse combinations of costs and benefits that will render the project unprofitable (NPV < 0). The relative areas of these two zones gives a visual impression of the relative risk.

Figure 6 – Switching Value Frontier



Source: SSFSNP Economic Model

[119] See Hoddinott, John, *et al* (2013) where BCRs of 3.6 to 48 are reported for investments in stunting reduction.
[120] As described in IFAD (2015), Economic and Financial Analysis of Rural Development Projects. Internal Guidelines, August 2015. Page 28.

Annex 1 Tables

1. Financial Analysis Main Assumptions
2. Seasonal agricultural calendar
3. Prices for Financial Model
4. Upland Illustrative Farm Model - Production and Inputs
5. Upland Illustrative Farm Model – Financial Budget
6. Valley Bottom Farm Model - Production and Inputs
7. Valley Bottom Farm Model – Financial Budget
8. Road Infrastructure Model
9. Economic analysis – Parameters and Method Summary
10. Economic analysis – Incremental Benefits (extract)
11. Economic analysis – Discounted Cash flow (extract)

The above outputs and associated models are provided in the Project File together with following information:

i. Valley Bottom Home garden – Yields, Inputs and Financial Budget
ii. Valley Bottom Rice – Yields, Inputs and Financial Budget
iii. Valley Bottom Watermelon – Yields, Inputs and Financial Budget
iv. Valley Bottom Maize – Yields, Inputs and Financial Budget
v. Valley Bottom Pig breeding – Yields, Inputs and Financial Budget
vi. Valley Bottom Cardamom – Yields, Inputs and Financial Budget
vii. Upland Home garden with micro irrig. - Yields, Inputs and Financial Budget
viii. Upland Rainfed upland rice - Yields, Inputs and Financial Budget
ix. Upland Maize - Yields, Inputs and Financial Budget
x. Upland Pigeon pea - Yields, Inputs and Financial Budget
xi. Upland Fish production - Yields, Inputs and Financial Budget
xii. Upland Bamboo collection - Yields, Inputs and Financial Budget
xiii. Cattle enterprise model

Annex 1, Table 1.1 – Financial Analysis Main Assumptions

Financial Parameters (selected)				
Outputs	Av. Yield Increase	Price (LAK/kg)	**Inputs**	Price (LAK)
Upland rice	125%	1,600	NPK fertiliser (kg)	5,600
Lowland rice	100%	2,500	Plant protection chemicals (litre)	75,000
Maize	40%	1,200	Improved maize seeds (kg)	2,000
Home garden	100%	5,000	Improved paddy seed (kg)	7,000
Pigs	81%	36,500	Improved vegetable seed (kg)	200,000

Table 1.2 – Yields by enterprise and farm model

Model / Enterprise	**Unit**	**WOP** [1]	**With Project**				
			PY 1	**PY 2**	**PY 3**	**PY 4**	**PY 5**
Upland Model							
Vegetables	kg/ha	2,000	3,250	3,500	3,750	4,000	4,000
Upland rice	kg/ha	800	1,000	1,200	1,400	1,600	1,800
Maize - upland	kg/ha	3,000	3,000	3,500	4,500	4,500	4,500
Pigeon pea	kg/ha	-	100	150	200	250	275
Fish	kg/HH	-	-	2,250	9,000	15,750	18,000
Bamboo shoots	kg/HH	-	100	150	300	300	300
Valley Bottom Model							
Cardamom	kg/ha	-	-	-	50	100	100
Vegetables	kg/ha	3,000	3,250	3,500	3,750	4,000	4,000
Rainfed rice	kg/ha	3,200	-	-	-	-	-
Paddy rice	kg/ha	-	3,000	3,500	4,000	4,000	4,000
Water melons	kg/ha	-	5,000	5,500	6,000	6,500	7,000
Maize	kg/ha	-	3,000	3,500	4,500	5,000	5,000
Piglets	kg/HH	122	222	222	222	222	222

\1 Without project - existing

Table 1.3 – Aggregated Production by Enterprise

Enterprise	Unit	WOP [1]	With Project			
			PY 1	PY 5	PY 10	PY 20
Fish	tonnes	-	-	929	4,131	4,131
Paddy rice - lowland	tonnes	-	-	17,595	20,400	20,400
Dryland rice - lowland	tonnes	10,200	10,200	-	-	-
Upland rice	tonnes	12,240	12,240	18,360	30,600	30,600
Maize	tonnes	30,600	30,600	36,848	47,175	47,175
Pigeon Pea	tonnes	-	-	1,148	2,104	2,104
Vegetables	tonnes	612	612	714	816	816
Watermelon	tonnes	-	-	14,025	19,125	19,125
Cardamom (dry)	tonnes	-	-	51	255	255
Bamboo shoots	tonnes	-	-	2,678	4,590	4,590
Piglets	tonnes	624	624	1,131	1,131	1,131
Manure	tonnes	5,585	5,585	5,585	5,585	5,585
Culled sows	head	765	765	816	816	816

Indicates the aggregated production from both the upland and valley bottom models.
\1 Without project - existing

Annex 1, Table 2 - Seasonal agricultural calendar: indicative main crops, cash crops and NTFPs

Weather and crop	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Weather												
Wet season												
Dry season												
Main annual crops												
Upland rice		Slash	Burn	Prepare, Plant, Weed	Plant	Plant	Weed	Weed	Harvest	Harvest	Harvest	
Maize		Slash	Slash, Burn	Plant	Plant	Weed	Weed	Harvest	Harvest			
Pigeon pea		Slash	Slash, Burn	Plant	Plant	Weed	Weed	Harvest	Harvest			
Lowland paddy rice				Prepare	Prepare, Nursery	Transplant	Plant	Weed	Weed, water mgt	Weed, water mgt	Harvest	
Water melon	Weed	Weed	Harvest								Prepare	Prepare, Plant
Vegetables (home garden)	Plant, Weed, Harvest	Plant, Weed, Harvest	Plant, Weed, Harvest	Plant, Weed, Harvest	Plant, Weed, Harvest				Plant	Weed, Harvest	Weed, Harvest	Weed, Harvest
NTFP activities (examples)												
Bamboo harvesting [1]	*Mai khom*	*Mai khom*	*Mai khom*				*Mai hob*	*Mai hob*				*Mai khom*
Cardamom									Harvest			

[1] Mai khom (*Indosasa sinica*) is harvested for fresh shoots; Mai hob (*Dendrocalamus hamiltonii*) is harvested for dry shoots for export

Annex 1, Table 3 – Prices

Selected Financial Prices

	Unit	LAK '000 2010 to 2029	Economic Rule
Outputs			
Fish production			
Fish	kg	25.0	CF: 1.0
Key products - annual			
Paddy rice - low land /a	kg	2.5	CF: 1
Dryland rice - low land /b	kg	1.6	CF: 1
Upland rice	kg	1.6	CF: 1
Maize	kg	1.2	CF: 1
Pigeon Pea	kg	12.0	CF: 0.75
Home garden			
Vegetables	kg	5.0	CF: 0.75
Cash crop			
Cabbage	kg	4.0	CF: 1.0
Watermelon	kg	2.0	CF: 1.0
Niche Products			
Cardamom (dry)	kg	45.0	CF: 0.5
Forestry			
Bamboo shoots	kg	3.5	CF: 1.0
Pig Production			
Piglets Exisitng	kg	33.0	CF: 1.0
Piglets New	kg	36.5	CF: 1.0
Manure	kg	0.3	CF: 1.0
Cull sow	head	1,295.0	CF: 1.0
Inputs			
Planting materials			
Bamboo seedlings	each	25.0	CF: 1.0
Paddy seed - improved /h	kg	7.0	CF: 1.0
Maize seed	kg	1.5	CF: 1.0
Improved maize seed	kg	2.0	CF: 1.0
Watermelon seeds	kg	500.0	CF: 1.0
Vegetable seeds	kg	150.0	CF: 1.0
Improved vegetable seeds	kg	200.0	CF: 1.0
Pigeon pea seeds	kg	12.0	CF: 1.0
Cardamom planting materials /i	Each	0.5	CF: 1.0
Inputs			
Organic fertiliser	kg	2.0	CF: 1.0
NPK fertilisers	kg	5.6	CF: 1.0
Urea	kg	5.2	CF: 1.0
Plant protection chemicals	litre	75.0	CF: 1.0
Compost	tonne	168.0	CF: 1.0
Cutting tools	set	400.0	CF: 1.0
Fencing materials /l	ha	1,000.0	CF: .5
Sacks	unit	2.0	CF: 1.0
Fish enterprise			
Fish food	kg	1.5	CF: 1.0
Rice bran	kg	3.0	CF: 1.0
Pond protection net /q	each	1,200.0	CF: 1.0
Catching net /r	each	400.0	CF: 1.0
Irrigaton expenses			
Micro-irrigation /v	hectare	20,000.0	CF: 1.0
Micro-irrigation maintenance	lump sum	Value Basis	CF: 1.0
Pig production			
Replacement sow	head	1,110.0	CF: 1.0
Service fees	unit	37.0	CF: 1.0
Purchse feed	kg	3.0	CF: 1.0
Purchase green fodder	kg	0.4	CF: 1.0
Fodder cultivation	ha	370.0	CF: 1.0
Veterinary drugs	lump sum	Value Basis	CF: 1.0
Vacinations	each	1.0	CF: 1.0
Utilities	lump sum	Value Basis	CF: 1.0
Pig Shed - Exisitng	unit	1,110.0	CF: 1.0
Pig Shed - New	unit	3,700.0	CF: 1.0
Equipment	lump sum	Value Basis	CF: 1.0
Labor			
Male and female family labor			
Male/female labor	person day	35.0	CF: .5
Hired labour			
Hired labour	person day	45.0	CF: .5

\a Irrigated
\b Irrigated
\h Local improved Kip 6,000 to 8,000/kg
\i Estimate
\l Annual cost to maintain fences
\q Replaced every three years
\r Replaced every 5 years
\s Share of electricity expenses for pump operation
\v $5000 per hectare

Annex 1, Table 4 - Upland Illustrative Farm Model – Production and Inputs

PRODUCTION AND INPUTS (Detailed) (In Units)		Feb -- Nov									
		Without Project					With Project				
	Unit	1	2	3	4	5	1	2	3	4	5
Main Production											
Fish	kg	-	-	-	-	-	-	34	135	236	270
Upland rice	kg	800	800	800	800	800	1,000	1,200	1,400	1,600	1,800
Maize	kg	2,000	1,500	1,000	2,000	1,500	1,500	1,750	2,250	2,250	2,250
Pigeon Pea	kg	-	-	-	-	-	50	75	100	125	138
Vegetables	kg	30	30	30	30	30	33	35	38	40	40
Bamboo shoots	kg	-	-	-	-	-	100	150	300	300	300
On-Farm Consumption											
Fish	kg	-	-	-	-	-	-	34	135	236	270
Upland rice	kg	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Vegetables	kg	30	30	30	30	30	33	35	38	40	40
Sales											
Upland rice	kg	-	-	-	-	-	-	200	400	600	800
Maize	kg	2,000	1,500	1,000	2,000	1,500	1,500	1,750	2,250	2,250	2,250
Pigeon Pea	kg	-	-	-	-	-	50	75	100	125	138
Bamboo shoots	kg	-	-	-	-	-	100	150	300	300	300
Purchased Consumption											
Upland rice	kg	200	200	200	200	200	-	-	-	-	-
Vegetables	kg	-	-	-	-	-	1	-	1	-	-
Investment											
Micro-irrigation	hectare	-	-	-	-	-	0	-	-	-	-
Operating											
Purchased Inputs											
Paddy seed - improved	kg	-	-	-	-	-	10	20	40	60	60
Maize seed	kg	8	8	8	8	8	-	-	-	-	-
Improved maize seed	kg	-	-	-	-	-	10	10	10	10	10
Improved vegetable seeds	kg	-	-	-	-	-	0	0	0	0	0
Pigeon pea seeds	kg	-	-	-	-	-	5	5	5	5	5
Compost	tonne	-	-	-	-	-	0	0	0	0	0
Fencing materials	ha	-	-	-	-	-	2	-	-	2	-
Sacks	unit	20	20	20	20	20	21	27	32	38	38
Fingerlings	each	-	-	-	-	-	450	-	-	-	-
Fish food	kg	-	-	-	-	-	-	30	30	30	30
Rice bran	kg	-	-	-	-	-	-	6	6	6	6
Micro-irrigation maintenance	lump sum	-	-	-	-	-	-	2,000	2,000	2,000	2,000
Labor											
January male labor	man day	0	0	0	0	0	0	0	0	0	0
February male labor	man day	20	20	20	20	20	20	21	21	21	21
March male labor	man day	0	0	0	0	0	0	0	0	0	0
April male labor	man day	20	20	20	20	20	20	20	20	20	20
May male labor	man day	0	0	0	0	0	0	0	0	0	0
June male labor	man day	8	8	8	8	8	10	10	10	10	10
July male labor	man day	8	8	8	8	8	10	10	10	10	10
August male labor	man day	8	8	8	8	8	10	10	10	10	10
September male labor	man day	8	8	8	8	8	8	8	8	8	8
October male labor	man day	8	8	8	8	8	8	8	8	8	8
November male labor	man day	12	12	12	12	12	14	16	18	18	18
December male labor	man day	0	0	0	0	0	0	0	0	0	0
January female labor	woman day	0	0	0	0	0	0	0	0	0	0
February female labor	woman day	0	0	0	0	0	0	0	0	0	0
March female labor	woman day	0	0	0	0	0	0	0	0	0	0
April female labor	woman day	16	16	16	16	16	17	17	17	17	17
May female labor	woman day	0	0	0	0	0	0	0	0	0	0
June female labor	woman day	7	7	7	7	7	11	11	11	11	11
July female labor	woman day	8	8	8	8	8	12	12	12	12	12
August female labor	woman day	8	8	8	8	8	12	12	12	12	12
September female labor	woman day	8	8	8	8	8	8	8	8	8	8
October female labor	woman day	8	8	8	8	8	8	8	8	8	8
November female labor	woman day	11	11	11	11	11	14	15	16	16	16
December female labor	woman day	0	0	0	0	0	0	0	0	0	0
Hired labour	person day	-	-	-	-	-	6	-	-	-	-

Note: Selected years only

Annex 1, Table 5 - Upland Illustrative Farm Model – Financial Budget

FINANCIAL BUDGET (AGGREGATED) (In LAK '000)	Feb -- Nov									
	Without Project					With Project				
	1	2	3	4	5	1	2	3	4	5
Main Production										
Fish production	-	-	-	-	-	-	844	3,375	5,906	6,750
Key products - annual	3,680	3,080	2,480	3,680	3,080	4,000	4,920	6,140	6,760	7,230
Home garden	150	150	150	150	150	163	175	188	200	200
Bamboo shoots	-	-	-	-	-	350	525	1,050	1,050	1,050
Sub-total Main Production	3,830	3,230	2,630	3,830	3,230	4,513	6,464	10,753	13,916	15,230
On-Farm Consumption										
Fish production	-	-	-	-	-	-	844	3,375	5,906	6,750
Key products - annual	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Home garden	150	150	150	150	150	165	175	190	200	200
Sub-Total On-Farm Consumption	1,750	1,750	1,750	1,750	1,750	1,765	2,619	5,165	7,706	8,550
Net Value Of Production	2,080	1,480	880	2,080	1,480	2,748	3,845	5,588	6,210	6,680
Purchased Consumption										
Key products - annual	320	320	320	320	320	-	-	-	-	-
Home garden	-	-	-	-	-	3	-	3	-	-
Sub-Total Purchased Consumption	320	320	320	320	320	3	-	3	-	-
INFLOWS	1,760	1,160	560	1,760	1,160	2,745	3,845	5,585	6,210	6,680
Production Cost										
Investment										
Irrigation expenses	-	-	-	-	-	200	-	-	-	-
Operating										
Purchased Inputs										
Planting materials	11	11	11	11	11	154	226	368	510	510
Inputs	40	40	40	40	40	1,550	66	81	1,592	93
Fish enterprise	-	-	-	-	-	-	63	63	63	63
Irrigation expenses	-	-	-	-	-	-	2	2	2	2
Sub-Total Purchased Inputs	51	51	51	51	51	1,704	357	514	2,167	668
Hired Labor										
Hired labour	-	-	-	-	-	270	-	-	-	-
Sub-total Operating Costs	51	51	51	51	51	1,974	357	514	2,167	668
Sub-Total Production Cost	51	51	51	51	51	2,174	357	514	2,167	668
OUTFLOWS	51	51	51	51	51	2,174	357	514	2,167	668
Cash Flow Before Financing	1,709	1,109	509	1,709	1,109	571	3,488	5,071	4,043	6,012
Farm Family Benefits Before Financing	3,459	2,859	2,259	3,459	2,859	2,336	6,106	10,236	11,749	14,562
Net Financing	-7	-7	-7	-7	-7	2,116	-2,173	156	1,476	-1,868
Cash Flow After Financing	1,702	1,102	502	1,702	1,102	2,687	1,314	5,228	5,520	4,144
Contribution from own savings	-	-	-	-	-	-251	-	-	-	-
Farm Family Benefits After Financing	3,452	2,852	2,252	3,452	2,852	4,201	3,933	10,393	13,226	12,694
Returns per Family-Day of Labor	23	19	15	23	19	23	21	55	70	67
Incremental Returns per Incremental Family-Day of Labor	-	-	-	-	-	27	34	232	278	280

Note: Selected years only

Annex 1, Table 6 - Valley Bottom Farm Model – Production and Inputs

PRODUCTION AND INPUTS (Detailed) (In Units)	Unit	Without Project	With Project				
		1 to 5	1	2	3	4	5
Main Production							
Paddy rice - low land	kg	-	3,000	3,500	4,000	4,000	4,000
Dryland rice - low land	kg	2,000	-	-	-	-	-
Maize	kg	-	1,500	1,750	2,250	2,500	2,500
Vegetables	kg	30	33	35	38	40	40
Watermelon	kg	-	2,500	2,750	3,000	3,250	3,500
Cardamom (dry)	kg	-	-	-	25	50	50
Piglets Exisitng	kg	122	-	-	-	-	-
Piglets New	kg	-	222	222	222	222	222
Manure	kg	1,095	1,095	1,095	1,095	1,095	1,095
Cull sow	head	0	0	0	0	0	0
On-Farm Consumption							
Paddy rice - low land	kg	-	1,000	1,000	1,000	1,000	1,000
Dryland rice - low land	kg	1,000	-	-	-	-	-
Vegetables	kg	30	33	35	38	40	40
Piglets Exisitng	kg	100	-	-	-	-	-
Piglets New	kg	-	100	100	100	100	100
Sales							
Paddy rice - low land	kg	-	2,000	2,500	3,000	3,000	3,000
Dryland rice - low land	kg	1,000	-	-	-	-	-
Maize	kg	-	1,500	1,750	2,250	2,500	2,500
Watermelon	kg	-	2,500	2,750	3,000	3,250	3,500
Cardamom (dry)	kg	-	-	-	25	50	50
Piglets Exisitng	kg	22	-	-	-	-	-
Piglets New	kg	-	122	122	122	122	122
Manure	kg	1,095	1,095	1,095	1,095	1,095	1,095
Cull sow	head	0	0	0	0	0	0
Investment							
Irrigation investment	lump sum	-	2,800,000	-	-	-	-
Pig Shed - New	unit	-	1	-	-	-	-
Equipment	lump sum	-	740,000	-	-	-	-
Operating							
Purchased Inputs							
Paddy seed - improved	kg	-	60	60	60	60	60
Improved maize seed	kg	-	10	10	10	10	10
Watermelon seeds	kg	-	1	1	1	1	1
Improved vegetable seeds	kg	-	0	0	0	0	0
Cardamom planting materials	Each	-	1,250	-	-	-	-
Plant protection chemicals	litre	-	2	3	4	4	4
Compost	tonne	0	10	13	15	17	18
Fencing materials	ha	-	1	-	-	1	-
Sacks	unit	-	100	105	110	115	115
Replacement sow	head	0	0	0	0	0	0
Service fees	unit	-	2	2	2	2	2
Purchse feed	kg	-	1,070	1,070	1,070	1,070	1,070
Purchase green fodder	kg	-	1,000	1,000	1,000	1,000	1,000
Fodder cultivation	ha	0	0	0	0	0	0
Veterinary drugs	lump sum	50,000	185,000	185,000	185,000	185,000	185,000
Vacinations	each	4	4	4	4	4	4
Labor							
January male labor	man day	1	5	5	5	5	5
February male labor	man day	11	12	5	5	5	5
March male labor	man day	1	15	16	17	18	20
April male labor	man day	9	18	16	16	16	16
May male labor	man day	1	16	16	16	16	16
June male labor	man day	6	11	11	11	11	11
July male labor	man day	6	4	4	4	4	4
August male labor	man day	6	5	5	5	5	5
September male labor	man day	6	4	4	6	7	8
October male labor	man day	6	4	4	4	5	5
November male labor	man day	12	18	21	22	23	23
December male labor	man day	1	12	12	12	12	12
January female labor	w oman day	1	5	5	5	5	5
February female labor	w oman day	1	5	5	5	5	5
March female labor	w oman day	1	15	16	17	18	20
April female labor	w oman day	9	10	8	8	8	8
May female labor	w oman day	1	16	16	16	16	16
June female labor	w oman day	6	10	10	10	10	10
July female labor	w oman day	6	4	4	4	4	4
August female labor	w oman day	6	5	5	5	5	5
September female labor	w oman day	6	4	4	6	7	8
October female labor	w oman day	6	4	4	4	5	5
November female labor	w oman day	12	14	16	16	17	17
December female labor	w oman day	1	15	16	17	17	17

Note: Selected years only

Annex 1, Table 7 - Valley Bottom Farm Model – Financial Budget

FINANCIAL BUDGET (AGGREGATED) (In LAK '000)	**Without Project**	**With Project**				
	1 to 5	**1**	**2**	**3**	**4**	**5**
Main Production						
Key products - annual	4,000	9,300	10,850	12,700	13,000	13,000
Home garden	150	163	175	188	200	200
Cash crop	-	5,000	5,500	6,000	6,500	7,000
Niche Products	-	-	-	1,125	2,250	2,250
Pig Production	4,562	8,631	8,631	8,631	8,631	8,631
Sub-total Main Production	8,712	23,094	25,156	28,644	30,581	31,081
On-Farm Consumption						
Key products - annual	2,000	2,500	2,500	2,500	2,500	2,500
Home garden	150	163	175	188	200	200
Pig Production	3,300	3,650	3,650	3,650	3,650	3,650
Sub-Total On-Farm Consumption	5,450	6,313	6,325	6,338	6,350	6,350
Net Value Of Production	3,262	16,781	18,831	22,306	24,231	24,731
Production Cost						
Investment						
Irrigation expenses	-	2,800	-	-	-	-
Pig production	-	4,440	-	-	-	-
Sub-total Investment Costs	-	7,240	-	-	-	-
Operating						
Purchased Inputs						
Planting materials	-	1,319	696	698	700	700
Inputs	34	2,538	2,548	3,057	3,903	3,571
Pig production	291	4,117	4,117	4,117	4,117	4,117
Sub-Total Purchased Inputs	324	7,975	7,362	7,872	8,720	8,388
Hired Labor						
Family labor female	-	-	-	-	-	21
Sub-total Operating Costs	324	7,975	7,362	7,872	8,720	8,409
Sub-Total Production Cost	324	15,215	7,362	7,872	8,720	8,409
OUTFLOWS	324	15,215	7,362	7,872	8,720	8,409
Cash Flow Before Financing	2,938	1,567	11,470	14,434	15,511	16,322
Farm Family Benefits Before Financing	8,388	7,879	17,795	20,772	21,861	22,672
Net Financing	-42	14,848	-8,645	510	271	-958
Cash Flow After Financing	2,895	16,415	2,825	14,945	15,783	15,364
Contribution from own savings	-	-7,564	-	-	-	-
Farm Family Benefits After Financing	8,345	15,163	9,150	21,282	22,133	21,714
Returns per Family-Day of Labor	65	66	40	90	91	88
Incremental Returns per Incremental Family-Day of Labor	-	68	8	119	120	113

Note: Selected years only

Annex 1, Table 8 – Rural Road Financial Analysis

Community Infrastucture Summary of Cost-Benefit Analysis of Rural Roads

Road type:	**Village to commune centre, 6 m width - gravel**				
Road length:	**5 km**			households	people
No. of villages reached:	**4**	**Village population reached:**		**340**	**2,278**

Costs (financial costs)	Lowland		Upland	
	LAK million	USD	LAK million	USD
Construction cost per km:	208	26,000	260	32,500
Construction cost per road:	1,040	130,000	1,300	162,500
Construction cost per household reached:	3.1	382	3.8	478

Production affected by infrastructure (upland and lowland)		**Before**	**After**	***Change***	
Tea					
Total Area	(ha)	40	40	0	*0.0%*
Avg. yield per ha and year	(MT)	4.0	4.0	0	*0.0%*
Losses (on-farm and during transport)	(%)	20%	5%	-15%	*-75.0%*
Marketed output after losses	(MT)	128	152	24	*18.8%*
Avg. price per unit of output	(LAK'000)	5,000	5,500	500	*10.0%*
Total revenue of marketed output	(LAK'000)	640,000	836,000	196,000	*30.6%*
Non-forest timber products					
Total Area	(ha)	100	100	0	*0.0%*
Avg. yield per ha and year	(MT)	0.6	0.6	0	*0.0%*
Losses (on-farm and during transport)	(%)	0%	0%	0%	*0.0%*
Marketed output after losses	(MT)	64	64	0	*0.0%*
Avg. price per unit of output	(LAK'000)	500	550	50	*10.0%*
Total revenue of marketed output	(LAK'000)	32,000	35,200	3,200	*10.0%*
Vegetables					
Total Area	(ha)	4	8	4	*100.0%*
Avg. yield per ha and year	(MT)	4.0	4.0	0	*0.0%*
Losses (on-farm and during transport)	(%)	10%	5%	-5%	*-50.0%*
Marketed output after losses	(MT)	14.4	30.4	16	*111.1%*
Avg. price per unit of output	(LAK'000)	4,000	5,000	1,000	*25.0%*
Total revenue of marketed output	(LAK'000)	57,600	152,000	94,400	*163.9%*
Maize					
Total Area	(ha)	20	20	0	*0.0%*
Avg. yield per ha and year	(MT)	3.0	4.0	1	*33.3%*
Losses (on-farm and during transport)	(%)	10%	5%	-5%	*-50.0%*
Marketed output after losses	(MT)	54.0	76.0	22	*40.7%*
Avg. price per unit of output	(LAK'000)	1,200	1,200	0	*0.0%*
Total revenue of marketed output	(LAK'000)	64,800	91,200	26,400	*40.7%*

Cost-benefit analysis \a	Period of analysis	Lowland		Upland	
		NPV /a (LAK'000)	IRR	NPV /a (LAK'000)	IRR
- Road construction	10 years	728,988	25.5%	458,594	18.3%
	15 years	1,247,533	28.6%	967,639	22.2%
	20 years	1,569,508	29.3%	1,283,715	23.2%
- Road rehabilitation	10 years	1,161,619	46.3%	999,382	36.4%
(costs: 60% of construction costs)	15 years	1,695,363	47.7%	1,527,427	38.5%
	20 years	2,026,776	47.9%	1,855,301	38.8%

\a At 10% discount rate.

Annex 1, Table 9 – Economic Analysis - Parameters and Method Summary

Parameter	Formulation	Notes
Village "Y" population in Year "X" =	Persons per household x number of households x growth rate	Persons per household is the average for rural areas 6.7 persons Number of households assumed at 85 (range is 70 to 100). Sensitivity is undertaken on this variable.
Crude births Year "X" =	Village "Y" population Year "X" x crude birth rate	Assumed at 27 per 1,000 persons
Birth cohort Year "X" =	Crude births Year "X" adjusted for infant mortality and mortality Under 5's for Year "X"	The infant mortality rate is commences at 54 per 1,000 births and the under-five mortality rate is assumed at 72 per 1,000 births These mortality parameters are aligned with the national targets.[121]
Stunted members of Year "X" birth cohort WOP	Birth cohort Year "X" x WOP stunting rate Year "X"	Current stunting rate assumed at 60%. [122] The stunting rate is adjusted annually to allow for background improvement. This reduction is estimated at 0.35% per year. [123]
Non-Stunted members of Year "X" birth cohort WOP	Birth cohort Year "X" x (1-WOP stunting rate Year "X")	
Stunted members of Year "X" birth cohort WP	Birth cohort Year "X" x WP stunting rate Year "X"	The WP stunting rate is a function of the background stunting rate for Year "X" and the reduction in stunting resulting from the SSFSNP activities. In the base case this rate is assumed at 2.5% per annum.
Non-Stunted members of Year "X" birth cohort WP	Birth cohort Year "X" x (1-WP stunting rate Year "X")	
WOP Year "X" birth cohort income	(Stunted members of Year "X" birth cohort WOP x stunted GDP per working person) + (Not Stunted members of Year "X" birth cohort WOP x not stunted GDP per working person)	GDP per working person Year "X" = (GDP per capita[124] / (Total population X Proportion of population aged 15 to 64)) x (1+ project annual GDP growth rate).[125] [126] Income earning age assumed at 15 years. Working life assumed at 40 years.
WP Year "X" birth cohort income	(Stunted members of Year "X" birth cohort WP x stunted GDP per working person) + (Not Stunted members of Year "X" birth cohort WP x not stunted GDP per working person)	
Incremental income village "Y" in "Year"	WP Year "X" birth cohort income - WOP Year "X" birth cohort income	

[121] Source: Lao PDR National Nutrition Strategy to 2025 & Plan of Action 2015-2020
[122] The Lao Social Indicator Survey LSIS (MICS/DHS) 2011-12 - page 169. Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height, Lao PDR 2011-12. Table NU.1: Nutritional status of children – Poorest wealth Quintile. This figure aligned with recent UNICEF figure for the selected provinces that range from 52.9% to 62.1%
[123] Based on Figure 2b – National trends of stunting, underweight, and wasting among children under five years of age in Lao PDR. Source: NNSPA 2015-2025 v2.0(8-6-15)
[124] World Bank 2015 Data http://data.worldbank.org/indicator/NY.GDP.MKTP.CD/countries Accessed 15.09.15
[125] Over the analysis period a conservative estimate of the real increase in GDP of 3 per cent per annum is assumed.
[126] The proxy for annual earnings is the GDP per working person. This figure is derived from the GDP for Lao PDR currently USD 11,772 million and the population of working age. The later parameter being a function of the total population and the percentage of the population of working age (15 to 64 years of age). Source: World Bank 2015 Data at: http://data.worldbank.org/indicator/SP.POP.TOTL and http://data.worldbank.org/indicator/SP.POP.1564.TO.ZS respectively. Accessed 15.09.15

Annex 1, Table 10 – SSFSNP Economic Analysis (Extracts)

Incremental benefit model

			Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18
Villages Recruited Year 2			-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Villages	#		-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Households	#		-	2,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Population (includes growth)	#		-	16,418	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crude births	#		-	443	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adjusted for losses at birth	#		-	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adjusted for lossess under 5	#		-	391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Incremental population	#	-	-	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391
Without Project Stunting rate	%		-	59.7%	59.3%	59.0%	58.6%	58.3%	57.9%	57.6%	57.2%	56.9%	56.5%	56.2%	55.8%	55.5%	55.1%	54.8%	54.4%	54.1%
With Project Stunting rate																				
Annual reduction			-	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)	(2.5%)
Cumulative annual reduction	%	-	-	(2.5%)	(5.0%)	(7.5%)	(10.0%)	(12.5%)	(15.0%)	(17.5%)	(20.0%)	(22.5%)	(25.0%)	(27.5%)	(30.0%)	(32.5%)	(35.0%)	(37.5%)	(40.0%)	(42.5%)
Applied rate	%		-	57.2%	54.3%	51.5%	48.6%	45.8%	42.9%	40.1%	37.2%	34.4%	31.5%	28.7%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%
Births in Year 2																				
Without project																				
Stunted	#	-	-	233	233	233	233	233	233	233	233	233	233	233	233	233	233	233	233	233
Non-Stunted	#	-	-	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158
With project																				
Stunted	#	-	-	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224
Non-Stunted	#	-	-	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168	168
Working life																				
Cohort age	#		-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Working life	[1,0]		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Income																				
Without project	$'000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,863	1,919	1,977
With project	$'000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,870	1,926	1,984
Incremental income	$'000	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7
Avoided health care costs																				
Incremental reduction in stunting	#		-	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Incremental avoided health care costs	$		-	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156
Births in Year 3																				
Without project																				
Stunted	#	-	-	-	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232
Non-Stunted	#	-	-	-	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159	159
With project																				
Stunted	#	-	-	-	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212
Non-Stunted	#	-	-	-	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179	179
Working life																				
Cohort age	#		-	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Working life	[1,0]		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Income																				
Without project	$'000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,920	1,978
With project	$'000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,934	1,992
Incremental income	$'000	467	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	14
Avoided health care costs																				
Incremental reduction in stunting	#		-	-	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Incremental avoided health care costs	$		-	-	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313

Annex 1, Table 11 – SSFSNP Economic Analysis (Extracts continued)

				PY 1	PY2	PY 3	PY 4	PY 5	PY 6	PY 7 to 16	PY 17	PY 18	PY 19	PY 20	PY 21+
Project Benefits															
Benefit - Incremental Income															
GDP per capita projection	$		2,799	2,883	2,969	3,058	3,150	3,245	3,342	3,442	4,626	4,765	4,908	5,055	5,207
Per capita income projections															
Without project	$			2,883	2,969	3,058	3,150	3,245	3,342	3,442	4,626	4,765	4,908	5,055	5,207
With project [based on increment shown]	$	3%		2,969	3,058	3,150	3,245	3,342	3,442	3,545	4,765	4,908	5,055	5,207	5,363
Increment	$			86	89	92	95	97	100	103	139	143	147	152	156
Incremental benefits															
Benefit - Incr Income Summary															
Incremental income - Under 2's on entry	$'000		1,513	-	-	-	-	-	-	-	23	40	42	43	44
Incremental income - subsequent births	$'000		2,182,509	-	-	-	-	-	-	-	29	91	222	426	712
Benefit - Avoided cost															
Avoided health care costs - Under 2's on Entry	$'000		31	0	0	0	0	0	0	0	0	0	0	0	0
Avoided health care costs - subsequent births	$'000		16,514	-	0	0	1	2	4	7	70	78	86	94	101
Total incremental benefit	$'000		2,200,567	0	0	1	1	3	5	8	123	210	350	564	858
Incremental costs															
Investment costs	$'000		37,590	5,207	6,838	8,994	12,046	2,616	1,888	-	-	-	-	-	-
Incremental net benefits															
Incremental net benefits	$'000		2,162,977	(5,207)	(6,838)	(8,993)	(12,044)	(2,614)	(1,883)	8	123	210	350	564	858
Decision metrics															
Discount rate	%		6%												
NPV @ 6%	$'000		**60,153**												
NPV @ 6%	LAK millon		**481,220,255**												
EIRR	%		**8.65%**												
Benefit cost ratio	ratio		**2.92 x**												

Appendix 11: Draft Project implementation manual

1. To be developed prior to project inception

Appendix 12: Compliance with IFAD policies

Policy	Strategic Objectives
IFAD Strategic Framework 2011-2015	The SSFSNP 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; integration of poor rural people within value chains; and technical skills development.
Lao PDR COSOP 2011 -2015	The Country Strategic Opportunities Programme (COSOP) is aligned with the policies and strategies of the Government of the Lao People's Democratic Republic which has three main objectives: (i) community-based access to management of land and natural resources; (ii) access to advisory services and inputs for sustainable, adaptive and integrated farming systems and; (iii) access to markets for selected products. The nature of the proposed primary target group will be poor rural households, composed mainly of subsistence farmers, wage laborers, landless people and market-participant smallholder farmers. The target group will also include "near poor" households, which are an income group increasingly vulnerable to shocks, especially those associated with climate risk. This group will include the under-privileged ethnic people. Finally, specific provisions will be made to ensure the full participation of women and youth. All of these target group characteristics are consistent with IFAD policy. The additional SSFSNP funding builds on the new Agriculture and Rural Development Strategy, the 7th National Socio-Economic Development Plan (NSEDP), and the National Growth and Poverty Eradication Strategy (NGPES).
Environmental Natural Resource Management (ENRM) Policy	SSFSNP supports the primary and secondary objective of this policy by promoting sustainable nutrient-rich upland production systems resilient to climate change. The program adheres to the following policy principles: (i) increased investment in approaches providing multiple benefits for sustainable intensification of agriculture: improved watershed / resilient infrastructure; (ii) strengthening the governance of natural assets to the rural poor through land ownership and community empowerment; (iii) equality and empowerment of women and ethnic peoples in the context of natural resource management and family nutrition; and (iv) Improving access of poor rural communities in financing environmental protection and the fight against climate change.

Policy	Strategic Objectives
IFAD's Climate Change Strategy	Overall, the response to climate change threats to agriculture is likely to result in greater support to NRM – such as 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 National Risk Profile of Lao PDR identified the following major natural hazards that affect the country: floods, storms, drought, landslides, disease outbreaks and epidemics, and unexploded ordnance (UXO). Key policy orientations include: • Reducing emissions from livestock manure through balanced feeding, lowering the N content of the animal feeds, anaerobic digestion for methane production 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). • 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). • 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). • 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.
IFAD's Policy for Gender equality and Women's empowerment	SSFSNP will systematically address issues of gender equality and women's empowerment. It will help women and their organizations in their advocacy for access to resources and knowledge. It will strengthen the capacity of project partners (national, local and decentralized institutions, training centers, private sector providers and national and international NGOs) to take into account issues of gender equality and community empowerment. This is particularly considered a difficult group to reach and therefore will be subject to special attention.

Policy	Strategic Objectives
IFAD's Policy for indigenous people	The approach to the non Lao-Tai ethnic groups is consistent with IFAD's policy to ethnic minorities, although this is not a term that is used in Lao PDR. The target populations in the uplands consist mainly of diverse ethnic groups, not from the Lao-Tai ethnic majority. Cultural differences will dictate the approach adopted, as well as different poverty levels. Local languages will be used in all village meeting, planning and extension sessions. District teams responsible for implementation will reflect gender balance, and their members will have command of ethnic languages. Capacity building tools will be developed in the languages of the main ethnic groups and take into consideration cultural differences. Special efforts will be made to recruit facilitators and extension agents speaking ethnic groups languages and in mobilizing and mentoring students from the ethnic schools.
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. SSFSNP will support the PLUP, being enacted in Lao PDR and will co-finance the issuance of land and forest use right certificates. There is a close link between the way in which natural resources are accessed and retained, and the way in which they are managed. The better defined and more secure the tenure or use rights, the more sustainably those resources are managed. Yet, tackling land degradation, or sustainably exploiting rangeland or fisheries resources, are also about improving management and conservation technologies and practices. Two policy objectives of IFAD are identified: (i) align with national priorities and supporting strategies to reduce poverty and (ii) focus on empowerment of action of the rural poor and their representative organizations.
IFAD's Knowledge Management Strategy	The SSFSNP is aligned with the Knowledge Management strategy, especially in the following areas (i) strengthening the process of knowledge sharing and learning; (ii) development of partnerships to provide a broader base of knowledge sharing and learning and; (iii) promotion of a dynamic platform for knowledge sharing and learning. The programme will use (human and financial) resources to enhance its impact by sharing knowledge and learning.

Appendix 13: Contents of the Project Life File

2. Framework document for a global agriculture and food security program (GAFSP)
3. Lao GAFSP grant application "Strategic Support for Food Security and Nutrition" Revised proposal December 2014.
4. GAFSP-CSO Mission to Lao PDR May 3-6, 2015
5. Lao PDR: Strategic Support for Food Security and Nutrition Project (SSFSNP), Detailed design mission Aide Memoire.
6. SSFSNP Working Paper 1: Village Nutrition and Women Empowerment
7. SSFSNP Working Paper 2: Institutions and Learning
8. SSFSNP Working Paper 3: Sustainable Farmer's Organizations
9. SSFSNP Working Paper 4: M&E and Knowledge management
10. Lao PDR Strategic Support for Food Security and Nutrition Project: Detailed Design Report
11. Lao PDR Strategic Support for Food Security and Nutrition Project: Final Project Design Report