

# Mid-term Evaluation of Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS Project)

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## **Executive Summary**

### **Mid-term Evaluation of Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS Project)**

The purpose of this Mid Term Evaluation (MTE) is to examine the performance of *Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS Project)*. The project commenced implementation in 2011 and is due for completion in 2015. This is an independent review of project achievements and progress at mid-point in accordance with UNDP and GEF evaluation procedures and criteria.

The people of Lao PDR are particularly vulnerable to climate change because 80% of livelihoods are associated with agriculture. Four main factors influencing the resilience to climate change were identified during the planning of IRAS project in 2010: (1) inadequate resource, data and information base; (2) limitations in systematic, institutional and individual capacity; (3) absence of tested and verified agriculture/rural adaptation technologies and practices (on-farm and off-farm) related to climate change; and (4) slow dissemination of appropriate coping mechanisms and adaptation practices. Accordingly, the project seeks to promote resilience in the agricultural sector Lao PDR by improving the knowledge base on climate change, strengthening agriculture and rural sector policies, developing institutional capacities for systematic adaptation planning and introducing adaptive agricultural practices together with alternative livelihood options for poor rural communities. In addition, adaptation monitoring and learning is being undertaken as a long-term process to facilitate replication and ongoing development of adaptation planning and practices.

The IRAS project is being implemented by the Ministry of Agriculture and Forestry (MAF) through the National Agriculture and Forestry Research Institute (NAFRI). Direct partnerships and contractual arrangements have been established with Department of Agriculture Extension and Cooperatives (DAEC), National Disaster Management Office (NDMO) in the Ministry of Labour and Social Welfare (MLSW), Department of National Disaster Management and Climate Change (DNDMCC) and Department of Land Planning and Development (DLPD) in the Ministry of Natural Resources and Environment (MONRE), as well as the two provincial authorities and four district authorities.

The project design faces some implementation challenges related to the wide range of activities, the complex set of partners, recent re-organisation of government services, and the long term difficulties of changing both government institutions and farming systems toward climate resilient practices. The MTE found that the planned activities and outputs have been diligently completed to provide an initial framework for agricultural adaptation. However, there remain some important concerns about the quality of the outputs and the sustainability of results. The project has a broad and compartmentalized approach that may lack sufficient focus and integration to transform the agricultural sector toward climate resilient practices within the available resources and time frame.

Increased awareness and orientation to climate change adaptation has been established through the policy advocacy, information systems development, training activities and site demonstrations. But the wide reach of the project (activities and partners), the significant capacity development gaps

(human resource and institutional) and the challenges in establishing model demonstration sites and effective adaptation planning and extension services also suggest a need to review and refine the project implementation strategy for the final two years.

With regard to Outcome 1, there has been good progress in developing the technical outputs, but consideration is needed on future use of the information and climate change impact scenario mapping outputs that are directly relevant for investment decisions on adaptation. The outputs could be focused on climate resilient agricultural practices at selected project districts as originally envisioned in the project design. The potential to sustain the proposed information system will depend in part upon whether it becomes an important part of a national flood and drought management framework. The project has provided input to several policy discussion processes and appears to have had some influence on the drafting of policy and legal documents such as Agriculture Law, National Land Policy, ToR for Environment and Climate Change, etc. Some progress has been made but it is difficult to determine whether the government is committed at this time to a substantive climate change adaptation policy framework.

With regard to Outcome 2, the extensive training programs have helped to build awareness of climate change adaptation concepts and technologies/practices. There is a need to now ensure that further training is directly linked to government adaptation duties and to the model practices that have been or are to be targeted for demonstration and extension support by IRAS project. Training that is intended for capacity development also requires consideration of the institutional conditions for effective use of these new skills and competencies. The ongoing training in IRAS could facilitate the operational refinement and sustainability of the key outputs the project, particularly CCTAMs and the proposed climate change information system. The CCTAM extension materials also need to consider agricultural water management issues alongside the other proposed modules.

With regard to Outcome 3, the scale of outreach to 35 villages across four districts has been impressive but the field visits also suggested a need to provide higher quality demonstration sites that illustrate best practices and provide evidence of agricultural results from investment in enhanced adaptation practices. Although it is early days, the field activities have not yet been sufficient to demonstrate the technologies for the purpose of replication and scaling-up. The exception may be the improved rice varieties which have reportedly been adopted by other nearby farmers outside of the project. Domestic water supply improvements may have limited relevance for stimulating climate resilient agriculture in the project sites. The further support for improved rice varieties and for domestic water supply may not be necessary except for dissemination of performance information that could facilitate lessons and replication. More integrated farming methods, improved cropping systems and water use efficiency measures could be usefully promoted at selected sites in conjunction with the CCTAMs implementation.

With regard to Outcome 4, the project's communication products has been impressive but there is a real need to document and disseminate model sites and practices, including relevant decision support tools that can provide useful knowledge development and learning processes. This component so far seems to emphasize the distribution of promotional project information and

technical studies. The IRAS experiences with (a) multi-sectoral planning processes that strengthen agricultural climate resilience, (b) tools that assist agricultural decision making (e.g., water balance models, water efficiency rules) and (c) on-the-ground technologies' applications could be captured for their strengths, weaknesses and further opportunities.

The overall project design lacks some implementation clarity and consequently there has been a continual need to explain what activities are suitable within the project. The project must be realistic about what is achievable in the next two years and to ensure that at least some of the core outputs (CCTAMs, climate-smart planning procedures, model demonstration sites, etc.) will be sustainable. This implies a focus on selected priorities, policy advocacy to integrate these outputs into government programs and protocols, and developing the evidence that demonstrates the benefits of enhanced agricultural practices for climate change adaptation and farm households.

Despite efforts by the project team, the field staff and partners report that the iterative concept proposal process under Outcome 3 remains a source of delays in funding of about two months which in turn creates implementation problems. One solution is to develop a more complete AWP that provides general screening and technical clearance for all of the major activities to be implemented during the year, with financial request based on quarterly workplans.

Sustainability of IRAS outputs depends upon the integration of the climate resilient planning and extension outputs into the government structures and programs, and documentation and promotion of the agricultural productivity and income effects of model farming practices so as to encourage replication and scaling up. Sustainability potential and the exit strategy could be assisted by strategic actions related to: (i) establishing the conditions needed to maintain the climate change information system developed by NAFRI under Outcome 1; (ii) ensuring the CCTAMs are actively utilized and being regularly implemented in the extension services; and (iii) assessing the outputs under Outcome 4 and building upon experience within NAFRI to identify adaptation research priorities.

The project management team has been proactive in responding to various issues, most notably to address the delays during the early stages, and the development of the Letters of Agreement (LoAs) with RPs to implement individual sub-components. Various actions have also been taken to improve the activity planning, financial disbursement procedures and project activity completion reporting problems. Management issues often stem from uncertainties in the project implementation strategy.

The Project Task Team Project Task Force (PTF) is the national technical working group that meets quarterly (originally planned to meet bi-monthly) to discuss a wide range of operational topics. The PTF was intended to serve as a pool of additional expertise to improve quality of project implementation and enhance meaningful stakeholder engagement on the level of project planning but this national level function has not been suitable for site technical assistance.

The lack of government experience with climate change adaptation, the administrative challenges of coordinating government and UNDP/GEF procedures, and personnel/consultant turnover and capacity weaknesses may have affected some aspects of the efficiency of the project. But the activity

completion and financial disbursement rate is on schedule. The PSU has provided regular consultations with the RPs and other partners. However, more supervision and guidance on the quality of the outputs being generated may be needed.

Continuous involvement of UNDP staff has been required to effectively manage the project within the NIM rules. Meetings are held monthly with project staff. Some of the implementation issues could have been more thoroughly anticipated at the Inception Stage. However, additional guidance was provided to overcome some early problems, and the slow start up required measures to quickly recruit staff and to accelerate progress. UNDP has been generally responsive to the issues that have emerged and given the project the necessary management attention that it requires during implementation notwithstanding the project design issue.

### ***General Conclusion***

Overall, the project implementation as been rated as Satisfactory, with project design considered Moderately Unsatisfactory and project sustainability Moderately Unlikely. The lack of a distinct project implementation strategy has hindered understanding of the project concept and the expected results. Nevertheless, the project has completed a wide range of activities and outputs that provide a foundation for enhanced climate resilience if increased integration, focus and sustainability can be addressed during the final two years. The project has been generally effective and efficient at activity and output completion but outcome achievement and sustainability remain to be seen. Given the broad-based project design, more emphasis is needed on the specific, sustainable results from technical studies, enhanced capacities, field demonstrations and the lessons learned.

### ***Recommendations***

Fifteen recommendations are presented related to Strategic Workplan, Strengthened Linkages, Exit Strategy, Project Management and UNDP/GEF Processes.

The first priority for project management during the remaining two years should be to consolidate and narrow the focus the project activities on strategic priorities that have the potential for sustainable results (see recommendations). The project may be trying to achieve too much in too many areas without sufficient emphasis on results and sustainability in the time remaining.

The second priority for project management should be to communicate this two-year strategy and to actively facilitate its implementation with the project partners, including enhanced work planning and dialogue on reducing delays in financial transfers. The complexity and compartmentalization of the project inhibits a common perception of expected results.

The third priority for project management should be to monitor and disseminate reliable information on the results and lessons from adaptation activities that can present the institutional and economic case for investment in adaptation by farmers and governments. The full performance data on these activities have yet to emerge from the project sites which are in the early stages.

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## Abbreviations

ADB	Asian Development Bank
AEM	Agro Ecosystem Management
APM	Assistant Project Manager
AWP	Annual Work Plan
CCTAM	Climate Change Training and Adaptation Modules
DAFO	District Agriculture and Forestry Office (MAF)
DEAC	Department of Extension and Agricultural Cooperatives
DoA	Department of Agriculture (MAF)
DoLUPaD	Department of Land Use Planning and Development (NLMA)
DNDMCC	Department of National Disaster Management and Climate Change
FAO	Food and Agriculture Organization of the United Nations
GCM	Global Circulation Models of Climate
GEF	Global Environment Facility
IFAD	International Fund for Agricultural Development
IWRM	Integrated Water Resource Management
LAO PDR	Lao People's Democratic Republic
LDCF	Least Developed Countries Fund
LoA	Letter of Agreement with RP
LIP	Local Integration Platform (Technical working group on province/district level)
M&E	Monitoring and Evaluation
MAF	Ministry of Agriculture and Forestry
MLSW	Ministry of Labour and Social Work
MoNRE	Ministry of natural Resources and Environment
MRC	Mekong River Commission
MTE	Mid Term Evaluation
NAFES	National Agriculture and Forestry Extension Service (MAF)
NAFRI	National Agriculture and Forestry Research Institute (MAF)
NAPA	National Adaptation Programme of Action to Climate Change Impact (2009)
NGO	Non-governmental organization
NIM	National Implementation Modality
NLMA	National Land Management Authority
PAFO	Provincial Agriculture and Forestry Office (MAF)
PC	Provincial Coordinator
PDR	Peoples Democratic Republic
PIR	Progress Implementation Review
PM	Project Manager
PRECIS	Providing Regional Climates for Impact Studies
PSU	Project Support Unit
PTF	Project Task Force (Technical working group on national level)
RP	Responsible Party
SELNA	Support to an Effective Lao National Assembly Joint Programme
STA	Senior Technical Advisor
SVK	Savannahkhet Province
TA	Technical assistance
TC	Technical Coordinator



ToR	Terms of reference
TSC	Technical Services Center
UNCCD	United Nations Convention on the Control of Desertification
UNDP	United Nations Development Programme
XBY	Xayaboury Province

## **1. Introduction**

### **1.1 Purpose**

The purpose of this Mid Term Evaluation (MTE) is to examine the performance of *Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts (IRAS Project)* which began implementation in 2011. The objective of this evaluation is to assess the project achievements and progress at mid-point and to recommend any needed corrective actions to achieve the stated outcomes, including sustainability issues and the exit strategy for the final two years.

The evaluation is an independent review, prepared in accordance with Global Environment Facility and UNDP guidelines. The Mid-Term Evaluation aims to determine the progress being made toward the achievement of outcomes and to identify any needed changes in the project. The format and methodology for this evaluation are defined by the Terms of Reference (Annex 1) and GEF evaluation guidelines. The standard international criteria of relevance, effectiveness, efficiency, impact and sustainability have been added to the prescribed MTE format and are addressed in various parts of Section 3 - Findings. Annex 2 discusses the main evaluation criteria and questions as per the eight topics requested in the terms of reference:

1. Project design
2. Progress and achievements
3. Work planning
4. Finance/cofinance
5. Project management
6. Monitoring and reporting
7. Risk management
8. Sustainability

The IRAS project seeks to reduce food insecurity and vulnerability of rural farmers to flooding and drought risks associated with climate change. The planned project period is 2011-2015. The project is being implemented by the Ministry of Agriculture and Forestry (MAF) through the National Agriculture and Forestry Research Institute (NAFRI) and with the support and assistance of UNDP Lao PDR, along with various government agencies. Four “Responsible Authorities” have been contracted to implement some of the key outputs: (1) Department of Agriculture Extension and Cooperatives (DAEC), (2) National Disaster Management Office (NDMO) in the Ministry of Labour and Social Welfare (MLSW), (3) Department of National Disaster Management and Climate Change (DNDMCC) and (4) Department of Land Planning and Development (DLPD) in the Ministry of Natural Resources and Environment (MONRE).

The IRAS project implementation is focused on two main provinces exposed to risks of increasing climate variability – related to both prolonged droughts and more severe incidence of floods. The project has engaged with the government and local farmer communities and villagers in Savannakhet and Xayaboury provinces to test a wide range of community-based adaptation options. These measures vary from cropping methods to water harvesting techniques, livelihood diversification

options and supply chains. The project is also working to improve climate hazard information that is usable for both decision makers and target communities, strengthen the extension services to guide farmers on effective coping options, and adjust the land use and disaster risk management policies that enable broader community and sector-wide resilience. Continuous monitoring of results and learning will assure that lessons learnt benefit the local populations as well as national policies.

The MTE field work was undertaken in Lao PDR from October 28 – November 11, 2013. Annexes 1-4 provide the terms of reference and methodological details. The project team was requested to provide a summary of output achievements and influences (Annex 5) which, along with the last annual Project Implementation Review (PIR), reflect a self-assessment of achievements. Brief field visits were made to three of the four districts and to nine of 35 project village sites (Annex 6 and 8).

## **1.2 Scope of work and limitations**

The MTE assessed progress to date relative to the expected results presented in the Project Document. The evaluation criteria are listed in Annex 2. The terms of reference required an evaluation of Project design, Progress, Adaptive management, Work Planning, Finance and co-finance, Risk management, Reporting, Management arrangements and Sustainability. The evaluation provided an opportunity to identify project design and implementation issues, assess progress toward planned results, and describe key lessons and challenges, along with the options for the remaining project period.

There were clear limitations to the evaluation - including the short term evaluation period (three weeks), the ease with which project results progress can be measured, the candidness of the stakeholder responses to evaluation questions, the transparency of the reported progress and results, and the representativeness of very short visits to selected project sites. The evaluation attempts to summarize the best available evidence of progress and key implementation issues but there are no doubt details that have not been possible to assess.

## **1.3 Evaluation Methodology**

The methods used in the evaluation included the following:

- Document reviews including assessment of monitoring information and notes on project meetings;
- Interviews with project partners, staff and participants, guided by the evaluation questions;
- Focal group discussions where feasible, including use of focal questions where appropriate to maximize individual stakeholder input;
- Observations and field notes to assess and verify progress at representative field sites; and
- Comparisons of project activities that illustrate particular project strengths and weaknesses and examine results under different modalities and conditions.

The main evaluation instruments included the Evaluation Criteria, an Interview Guide and a Rating Scale provided by UNDP. The evaluation process initially focused on the project's Logical Framework and Results Framework as a yardstick in assessing progress related to the approved project

Indicators. The evaluation emphasized an independent, objective, evidence-based and participatory process for mid-course review and, where necessary, adjustment of the project strategy and operations. A collaborative and consensus-based approach involving self-assessment by project staff and participants was used to the extent possible. The evaluation made use of the available time to maximize input, recognizing the time and information limitations of short term evaluations.

The consultant team prepared the report based on a draft outline presented in the MTE Inception Report and the guidelines provided by UNDP/GEF. Conclusions and recommendations were identified following a synthesis of the data collected during the evaluation, and further discussions undertaken following the field visits. The report reflects the joint views of both consultants.

## **2. Project Description and Context**

### **2.1 Problems that the project seeks to address**

Lao PDR has experienced observable changes in the climate including higher than usual intensity rainfall events during the raining season and extended dry seasons. The related risks include sudden flash-floods, landslides and large-scale land-erosion on slopes and - recently - typhoons in the south. These events can be very destructive not only altering the landscape, fauna and vegetation, but also destroying public infrastructure, property, productive land, agricultural assets and harvests. The people of Lao PDR are particularly vulnerable to climate change because 80% of livelihoods are associated with some form of agricultural activity.

The problems identified in the project document include the following:

- Basic regional climate change information has not yet been comprehensively applied to the agricultural sector. Additionally, vulnerability information is highly scattered across different public and private sector entities, government departments and development agencies and has yet to be comprehensively consolidated and delivered to national stakeholders in a user-friendly and policy-relevant manner. Climate change data is collected sporadically by different agencies. Systematic analyses of data either does not take place, or is not distributed to partners. Academic and teaching institutions are only peripherally engaged in the process of CC and adaptation analyses.
- Capacity gaps at the national and provincial level to access, understand, interpret and apply climate risk information for agricultural planning purposes are prominent. At the district, kum ban and village level, technical service centres, farmer cooperatives and disaster management committees lack the financial resources and knowledge to effectively address robust and resilient decision making in the face of dynamic hydro-meteorological hazards. Agricultural planners and disaster management professionals are presently not able to efficiently translate climate risk projections into resilient planning and investment decisions that translate into long-term improved food and income security for local communities.

- Agricultural practices and extension services have not yet been adapted to take climate change risks into account. There is a general lack of awareness about community-based approaches to address climate change risks and there is an urgent need for a framework of best practices that can be developed and adopted as a comprehensive and ecologically sensitive resilience approach to climate risk. Livelihoods and coping ranges within communities will continue to deteriorate as a result of increased extremity and frequency of floods.

The options for improving the sustainability of the farming systems may include:

- (i) Increasing the availability of water and the efficiency in lowland rice farming systems,
- (ii) Increasing the sustainability of non-rice cropping systems, such as maize, which have significant risks due to unsustainable land management practices,
- (iii) Improved livestock production and better linking of livestock producers to markets,
- (iv) More diversified cropping and farming systems, based on rice, other annual crops, perennial crops, and livestock, and
- (v) Improved management, and perhaps specifically marketing, of non-timber forest products.<sup>1</sup>

## 2.2 Expected Results

**Project Objective:** Food insecurity resulting from climate change in Lao PDR minimized and vulnerability of farmers to extreme flooding and drought events reduced

**Outcome 1:** Knowledge base on Climate Change impacts in Lao PDR on agricultural production, food security and vulnerability, and local coping mechanisms strengthened.

**Outcome 2:** Capacities of sectoral planners and agricultural producers strengthened to understand and address climate change – related risks and opportunities for local food production and socio-economic conditions.

**Outcome 3:** Community-based adaptive agricultural practices and off-farm opportunities demonstrated and promoted within suitable agro-ecological systems

**Outcome 4:** Adaptation Monitoring and Learning as a long-term process

The four project components are organized in a sequence, as follows:

**Component 1** (Outcome 1) on knowledge base information involves the underpinning of the information base for CC risks and vulnerability as a basis for better understanding of the impacts of CC to agriculture in the context of food security. Component 1 provides the improved data base for policy, planning and mainstreaming of CC adaptation schemes in the implementation of ANR sector projects.

**Component 2** (Outcome 2) on capacity building essentially focuses on improving the skills and competence of GOL personnel in integrating CC in the planning and formulation of policies, programmes and projects designed to eradicate widespread poverty in the rural areas. The key in component 2 is to sharpen the competence of GOL personnel in the setting up of regulatory frameworks, budgeting and planning and adaptation schemes consistent with

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<sup>1</sup> IRAS, Nov 2012: Strategic Matters for CCA in Agriculture and Land Management, p. 23

sustainable and equitable use of natural resources, notably agricultural lands and the remaining forest and fishery resources.

**Component 3** (Outcome 3) is on agricultural extension of CC resilient farming innovations combined with value-chain to increase the opportunities of the small farmers for income diversification. This component is related to component 2. The agricultural extension officers who have completed their skills' enhancement on CCTAMs courses will implement the pathways to achieving an effective system of agricultural extension delivery to small farmers.

**Component 4** (Component 4) is the medium for sharing and exchanging lessons learned and success stories about the project interventions. Access to this medium through a user-friendly web portal established at NAFRI can increase the awareness of practitioners and small farmers on how to mitigate the impacts of CC change, including the adoption of climate-responsive food production systems.<sup>2</sup>

## **2.3 Baseline indicators and data**

The importance of a solid baseline survey was emphasized at the commencement of the project. A baseline survey was undertaken in August 2011. A set of indicators were presented in the M&E Manual (Oct. 2011) and these were later revised as thirteen outcome indicators. The project Results Framework lists the following indicators:

### **Project objective**

- Availability of a framework for climate change resilient agriculture in Lao PDR
- Percentage of households in pilot districts (Savannakhet, Saravan and Xayaboury province) actively implementing climate change adaptation measures introduced by the project
- Proportion and value (yield) of agricultural assets with increased resilience to climate change as a result of adaptation measures implemented by this project

### **Component 1**

- Cover: Number and type of stakeholders served by expanded climate and vulnerability information and knowledge base related to agriculture and food security
- Impact: Numbers of national and provincial level stakeholders using improved climate and vulnerability information in formulation of climate resilient policies and plans.
- Sustainability: Resources available to maintain knowledge base after end of the project

### **Component 2**

- Cover: Number of targeted institutions (agriculture, water management, food security, early warning, poverty alleviation, etc) with increased capacity to reduce risks of and respond to climate variability.
- Impact: Number of targeted agricultural officers, extension workers, farmer cooperatives and TSC (Technical Service Center) members in target districts have an advanced understanding of key climate change risk and impacts on agricultural production and socio-economic conditions.

### **Component 3**

- Cover: Number and type of climate risk-reducing farmer level practices identified and trialed to support adaptation of livelihoods and/or resource management.

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<sup>2</sup> Virgilio E. Cabezón, *M+E Manual for IRAS Government of Lao People's Democratic Republic*, October 2011,

- Cover: % or targeted farming households aware of predicted adverse impacts of climate change and implementing new adaptive practices for agro-ecosystem and landscape management.
- Impact: Improvement in farmer yields and water availability due to adaptation measures trialed in more than 50% of targeted communities.

#### Component 4

- Replicability: Number of 'lessons learned' codified in a specific KM facility such as the Adaptation Knowledge Platform for South East Asia or the global Adaptation Learning Mechanism
- Replicability: Number and type of relevant networks or communities through which lessons learned are disseminated to enable replication.

Two types of baseline questionnaires were drafted for IRAS: (i) baseline survey questionnaire for small farmers; and baseline survey questionnaire for GOL ministries and institutions. The baseline questionnaire for small farmers was meant to capture the outcome variables primarily for project objective and component 3, while the latter questionnaire was planned to capture the outcome variables mainly for component 2.<sup>3</sup>

### 2.4 Main stakeholders

The primary implementing partners in the project include:

Agency	Primary Responsibilities
NAFRI National Agricultural and Forestry Research institute	Project management, climate scenario analyses sub-component, GIS mapping in support of Component 1, and agro-ecosystem management sub-component proposal to be undertaken at two selected sites (Namor District and Punsai District).
DAEC Dept. of Agriculture Extension and Cooperatives	Development of six CCTAMs under agreement with the project (Crops/agroforestry, Small livestock, Fisheries/aquaculture, Fruit/vegetables, Off-farm IGAs, 'Safeguarding land for schools, pagodas), training of trainers and training of line agency staff
Department of National Disaster Management and Climate Change (DNDMCC), MONRE	(newly established in MoNRE) Developing basic national awareness of climate change; district level orientation, mostly at schools; video developed; 8 workshops planned.
National Disaster Management Office (NDMO), MLSW Ministry of Labour and Social Welfare (MLSW/NDMO)	The department is committed to strengthening knowledge of district and village committees, and establishing disaster management plans. It is providing training of trainers at the district and provincial level, developing training manual and training plan and

<sup>3</sup> Ibid., 2011, p.24.

	implementing a training programs for districts.
Department of Land Planning and Development (DLPD) MONRE	Land Use Planning training module and integration of climate resilience concepts into the Training Manual. preparation of Land Use Plans in all of the project villages
Private Sector, NGOs, Mass Organizations, other GoL/MAF parties	Various collaborations in the technical assessment and in the training events

The project has involved about 27 organizations in an estimated 95 project activities<sup>4</sup> (e.g., WWF, IUCN, ADB, SNV, Care-Laos, FAO, IWMI, MRC, etc.). Some of these stakeholders participated in the project design and consultation workshops during 2010.<sup>5</sup> Others joined in various training and other events that have been sponsored by the project. The organization of Letters of Agreement (LoA) with 'Responsible Parties' (RPs) were added after the inception phase to formally engage other government agencies. Overall, the project beneficiaries have been tabulated at 8,770 direct beneficiaries (25% female) and 181, 274 indirect beneficiaries, including website visitors.<sup>6</sup>

Coordination of the many implementing partners and stakeholders has been a challenge. Issues associated with the working relationships between the project implementing partners are discussed in section 3.4.1 below.

Gender equity has been taken into consideration in the training and field demonstrations. Direct female project beneficiaries were estimated at 25% by the project team. Of the 976 persons who have to date received some form of training or orientation, 27% have been women. The project has also delivered *Training on Gender and Climate Change Adaptation*.

The local beneficiaries of the field activities have included rural households receiving water storage and agricultural inputs, owners of small scale irrigation systems that have fallen into disrepair and are being rehabilitated by the project, and schools that have received community ponds for education on integrated farming (see section 3.2.3).

<sup>4</sup> Somphone Inkamseng, IRAS Mid-Term Evaluation (M & E for MTE), October 28, 2013

<sup>5</sup> Lao People's Democratic Republic, United Nations Development Programme, Report (Main Text): Inception Workshop 8<sup>th</sup> of July 2011 , Vientiane Lao PDR, July 27, 2011

<sup>6</sup> Somphone Inkamseng, op. cit., 2013



## 3.0 Findings

### 3.1 Project Design

#### 3.1.1 Effectiveness of the project strategy

##### Strategy characteristics

The project strategy in the Project Document stated that *food insecurity resulting from climate change in Lao PDR will be minimized and vulnerability of farmers to extreme flooding and drought events will be reduced as part of an overall approach designed to introduce new adaptative techniques to farmers while encouraging a diversification of livelihood strategies at community level.*<sup>7</sup> This is expected to be achieved by overcoming key policy, communication and information, institutional and economic barriers, which were identified in the NAPA as requiring immediate action.

The Project Document further explains that under Outcome 1 the information base for understanding climate risks and vulnerability will be strengthened and organised in way that it can effectively inform agricultural sector policies and planning. Outcome 2 addresses the need to develop the capacity of planners at different levels of government to use this information in the planning and allocation of resources. Outcome 3 focuses on Lao PDR's agricultural extension services and demonstrating new techniques to build resilience at the community level including targeted training modules to ensure that these techniques take hold and become widely applied. Under Outcome 4, lessons learned and adaptation knowledge generated through the project will be systematically compiled, analyzed and disseminated nationally and internationally, thereby supporting further up-scaling and replication.<sup>8</sup>

##### MTE Comments

The project design faces some major challenges related to the wide range of activities, the complex set of partners (25 government organizations and two NGOs), recent re-organisation of government services, and the long term difficulties of changing both government institutions and farming systems toward climate resilient practices. The ambitions of the project are significant for climate change adaptation in Lao PDR. However, the overall strategy to introducing adaptation techniques to government and farmers is not fully explained in the Project Document (2011) and Inception Report (2012). This is a key design weakness that affects project implementation: the lack of a clear logic model that defines *how* technical knowledge, training programs, field demonstrations and monitoring/learning will specifically leverage a shift toward climate resilience in the agriculture sector. It reflects the distinction between an activity-based and a results-based project design.

The project design contains a central premise that a wide range of useful activities and outputs on technical information, capacity development and field activities will lead to substantive enhancement of climate resilience and food security within a four year period. Completion of proposed knowledge products was stated as the basis for assuring achievement of the project outcomes within the next

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<sup>7</sup> United Nations Development Programme, Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts Project Document, 2011, p. 22.

<sup>8</sup> Ibid., 2011, p.22

two years. But this is not enough to assure results without a clear implementation strategy. An overarching strategy could have been usefully established at the inception stage to define the particular knowledge, capacity, pilot testing and learning outcomes that are *necessary and sufficient* to achieve reduced food insecurity and vulnerability to climate change. Examples of such strategies might include, for example, developing a model district level adaptation plan and program based on the technical analysis and field activities, or establishing demonstration sites that serve as farmer field schools for climate-resilient extension initiatives, or expanding farm accessibility and support for adaptation technologies, or integrating cross-cutting government programs at the field level, or some other strategy that defines the basis for generating expected end results (i.e., a distinct theory of change and results chain). Instead, the output-oriented sub-components are expected to collectively address the thirteen key indicators of project outcomes. It is not clear what will essentially drive the project results. Consequently, there has been a continual need to explain what activities are within the scope of the project, and how the sub-component activities will feed into the outcomes. This leaves considerable flexibility for the project to engage in a wide range of activity sub-components that largely function independently and some of which may not directly target agricultural resilience.

The appropriate adaptation strategies and methods were planned to emerge from the technical assessments and the enhanced planning and extension systems under Outcomes 1 and 2, which would provide a basis to guide activities in Outcomes 3 and 4. But it has not been possible to provide for this sequence because the project components function separately and the technical analysis under Outcome 1 is at scale that is not easily useful for the site level interventions under Outcome 3 and the subsequent promotion of lessons.

There is also no apparent concept yet for how the various capacity development outputs will merge at the provincial or district level, or even agreement that there should be direct links between them. There are also some doubts about the ability of the RPs to effectively mainstream the outputs that they are producing under each of the LoAs into their individual agency programs. This needs to be addressed as a priority since such mainstreaming is important for sustainability (see Recommendations).

The CCTAM extension modules and the demonstration field activities seem to be the central mechanism for the expected outcome-level results related to climate-resilient agriculture. . Moving the agricultural sector and the related government programs toward climate resilient practices is a long term challenge. The project needs to be realistic about what is achievable in the next two years and to ensure that at least some of the core outputs (CCTAMs, climate-smart planning procedures, model demonstration sites, etc.) will be sustainable. This implies a focus on the selected priorities, policy advocacy to integrate these outputs into government programs and protocols, and developing the evidence that demonstrates the benefits of enhanced agricultural practices for climate change adaptation.

The project is actively working to strengthen the government system in this direction but it will need to overcome mis-perceptions by some of the participants that the project is simply providing supplementary funding for delivery of climate change-related government programs. Traditional

barriers between agencies inhibit cooperation on cross-cutting issues such as climate change. It takes time, effort and leadership to develop a common understanding of expected results strategy. This constraint can be reduced by more sharply defining and communicating the project strategy for the remaining project period.

Like similar sector-wide adaptation projects, implementation requires *simplification, clear focus and adjustments* that help to focus on sustainable results. A transition toward more narrow, well-defined results is part of the typical evolution of such projects and is a theme of much of this MTE report.

### **3.1.2 Quality of the indicators**

The quality of project indicators (Section 2.3) depends upon the clarity of the outcome statements, the availability/accessibility of reliable verification data, and whether the indicators accurately measure progress toward well-defined end results. There were clearly some problems in operationalizing the results framework, including a reluctance to modify the framework and M&E system in order to make the monitoring more meaningful and practical.

With regard to the Objective (reduced food insecurity and vulnerability of farmers to extreme flooding and drought) high level indicators of major changes in agriculture in the project areas would seem to be appropriate, such as the status of household food security indices and the effective utilization of adaptation technologies (percentage uptake without project subsidies).

With regard to Outcome 1 (increased knowledge and understanding), the Cover (reach), Impact and Sustainability indicators may overlook the central question associated with the mainstreaming target: do the relevant subnational plans, programs and budgets in the two provinces specifically address appropriate adaptation measures drawn from the technical assessment of climate impacts? E.g., will we know from the M&E system whether the climate-resilient outputs from the RPs are fully or partially established integral to the government systems?

With regard to Outcome 2 (capacity development) aside from enhanced awareness of stakeholders, the key result indicator might be whether the targeted agencies have the organizational and human resource capacities to implement the adaptation practices or tools prescribed for the project district (rather than number of staff that have been trained). E.g., the capacity of Technical Service Centers (TSCs) to deliver the CCTAM extension modules.

With regard to Outcome 3 (community-based adaptation demonstration and promotion), the improved crop yields and water use efficiencies at the demonstration sites relative to conventional practices would seem to be most relevant, along with the measures of the community sustainability of the demonstration activities. Will the indicators measure the relative performance of various adaptation practices at different locations and generate data for adaptation learning and replication?

With regard to Outcome 4 (adaptation learning), the indicators are mostly measures of activities (disseminating knowledge, conferences held) rather than defined learning results and availability of tools or technical guidance that have been drawn from the project experiences.

After the previous delays in launching the M&E system, it may not be productive to re-visit the project results framework. Rather, the 2-year strategic workplan that is recommended in this report should contain practical indicators from the M& system that focus on measuring the achievement of core results.

### **3.1.3 Validity of assumptions**

The project design assumptions included (i) actual climate change lies within a “flexibility range” for adaptive agriculture (i.e., adaptation viability), (ii) tangible socio-economic benefits are generated for the farmer, and (iii) the project is able to attract further co-funding during the implementation period. The first two assumptions are still valid. Other project design assumptions that have affected implementation include: (i) GoL Budget available after project end, (ii) implementation modalities for national CC strategy are further developed and (iii) pilot activities and results are able to influence mainstream debate on agriculture in Lao PDR.<sup>9</sup>

In the context of a more focussed implementation strategy, the assumptions that need to be highlighted and addressed are those related to:

- Government support for establishing a climate change information system that is part of a national adaptation planning protocol and has a functional role in future climate change initiatives.
- Sufficient institutional capacity is available or can be developed in the short term to provide for effective implementation of the key project outputs (such as CCTAMs).
- Problems that led to disrepair of the small scale agricultural infrastructure can be overcome in the project-supported rehabilitation efforts to ensure long term maintenance of these facilities.

### **3.1.4 National ownership, alignment and relevance**

The project is being directly implemented by the relevant agencies and community organizations and is aligned with national priorities and government systems. Management functions of the PSU and field coordination are dominated by non government staff which could limit some of this inherent institutional ownership within government. The 18 non-government project staff are assisting the following government staff: National Project Director, two full-time technical GoL staff in the PSU, two part-time provincial coordinators, four part-time district coordinators, one full-time administrative staff in the PSU, several part-time technical staff made available for specific purposes (technical workshops, technical counterparts for consultancies) etc.

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<sup>9</sup> United Nations Development Programme, op.cit., 2011, page 48-51.

Commitment to mainstreaming of the project outputs, particularly through the RP sub-components, will be further required to enhance the integration with government systems. Full conformance with the RP LoAs remains to be assessed by the PSU but the direct engagement of these government agencies is significant for national ownership.

The project is highly relevant to the priorities established under the NAPA and addresses local needs that present major threats to food security in the provinces.

### **3.1.5 Role of technical assistance**

The need for and use of international technical assistance (TA) and the availability of national expertise for such assistance has been a concern that was not anticipated in the project document. Project experience with some of the external advisors has apparently not been particularly cost-effective, and the lengthy period for recruitment (about 2.5 months) a source of delay. This has inspired a suggested shift in the approach to make greater use of national consultants and/or staff from relevant government departments (under Responsible Party agreements) to deliver specific interventions. Whatever national or international recruitment is initiated, quality assurance oversight is critical to ensuring that the technical assistance meets acceptable standards.

The first question is whether the requirements for TA are clearly assessed and well-defined, and the project knows exactly what they want from international experts in relation to the expected results of the project. (The project design does not facilitate this question) The secondary question is whether national sourcing is feasible and meets the requirements. The approach to further recruitment could consider:

- (a) directly limiting the assistance to inputs needed to produce the key outputs of the project,
- (b) ensuring government counterpart on the job mentoring as a condition of the assistance, and
- (c) engaging qualified national consultants where available.

There is also a need to more closely engage government staff in the project management in order to encourage a transition of the project to MAF responsibilities during the final stages. The APM and STA consultants should provide the necessary mentoring for this hand over process to government.

## **3.2 Progress towards Results**

### **3.2.1 Outcome 1 – Knowledge Base**

***Knowledge base on Climate Change impacts in Lao PDR on agricultural production, food security and vulnerability, and local coping mechanisms strengthened.***

#### Completed Activities

The project document suggests that climate risk projections will be integrated into a comprehensive national database for flooding and drought hazards and vulnerabilities to be established by the project involving *a functional system for the collection, distribution, and internalisation of climate-*

*related risk information at the national, district, and local levels.*<sup>10</sup> The activities under this component have to date focused on compiling twelve layers of mapped CCA information in a GIS format, applying a simplified model for estimating water balance in a watershed, and developing two climate scenarios for XBY and SVK regions.

The technical work has involved analyses of the Second National Communication and potential consequences of climate change on future agricultural development for Lao PDR. Scenario development in IRAS was based on contacting and collecting information from other institutes, and producing maps of the target districts with potential scenarios / forecasts for 2025 and 2050 with focus on population, land, water, temperature, soils, crops, fisheries, livestock and forests in four target districts).<sup>11</sup> Downscaling of Global Circulation Models to provide projections for climate change scenarios is reported as underway.

Profiles of the project areas were prepared at the beginning of the project, summarizing the known flooding and drought hazards from previous surveys by government. Community vulnerability surveys are typically used to assess the responses and coping mechanisms of the countries and to suggest suitable adaptation strategies. In the IRAS case, a GIS-based mapping approach has been adopted, overlaying population growth, land use, water resource availability and other parameters to highlight districts scenarios for 2040 and 2070. A special report on *Water Budget Estimation for Agricultural Communities in Laos* was prepared with a geospatial methodology for estimating water availability in the target areas using globally available climate data. A simplified model for watershed water balance has been developed from this report and may be applied through a GIS. A key output from Component 1 is a proposed “comprehensive national long-term information system for flood and drought-related hazards and vulnerabilities”. See Annex 5 and the 2013 PIR.

#### MTE Comments

There has been good progress in developing the technical outputs, but this component needs to directly consider the future use of the information and scenario mapping outputs that are relevant for decision support functions in government. If they remain “NAFRI-owned” the prospects for mainstreaming are low. How the planned climate scenario maps will be used for “future planning under conditions of climatic variation” remains unclear. References to links to modified land use planning process were noted in the presentation materials but there is yet to emerge a clear set of customers for these maps. Can they be utilized in conjunction with the other RP programs to formally identify the critical vulnerability zones and the adaptation priorities (NAP follow-up purpose)? In other CCA projects, the technical risk and vulnerability assessments are followed by a community survey that endeavors to provide specific field verification of the socio-economic vulnerabilities and the local adaptation opportunities and constraints. The project should be in a good position to demonstrate a well-defined LAO PDR model for district level adaptation planning. These technical

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<sup>10</sup> United Nations Development Programme, Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts Project Document, 2011, p. 31

<sup>11</sup> Khamtue Vonglorkham, *Scenario development in IRAS*, Workshop on “Assessing the present situation on scenario development for climate change responses in Lao PDR” on 23 April, 2013 at ICTC, Vientiane Capital Lao PDR.

outputs can help to establish an accepted approach to climate resilience/vulnerability reduction planning in the agricultural sector if they can be set within a larger decision support function and government ownership.

The strategy for maximizing use of these outputs could include (a) demonstrating how to apply the watershed water balance model to the draft land use plans and district development plans and (b) further elaborating the water use and efficiency implications of the scenarios.<sup>12</sup> Relevant application of the outputs from this component could be focused on climate resilient agricultural practices at selected project sites as originally envisioned in the project design (Component 3) to show how they can lead to productive adaptation investments by government and farmers. There remain barriers between the project sub-components and reservations about the effect of the information and capacity improvements in directly stimulating significant and widespread changes in cropping systems and water management.

These concerns about relevant linkages are especially prominent for Output 1.4 which proposes a long term national information system to be managed by NAFRI. The potential for maintaining this output after the project is, at best, uncertain unless the information system provides value for an identified customer base: who would use the information systems other than NAFRI researchers? A survey of potential users and opportunities to integrate, add value and recover costs within the relevant government services may be required with the support of high level officials of the government.

The potential to sustain the proposed information system will depend in part upon whether it is perceived as a NAFRI research information base or alternatively as an important part of a national flood and drought management framework. The latter depends upon the involvement and endorsement from other agencies and senior government officials in creating a functional decision support role within a national climate change policy framework. The purpose, role and status of the information system need to be more carefully defined as part of the exit strategy for the project.

The IRAS study approach to developing scenarios projections provides an interesting contrast to the downscaling of Global Circulation Models (e.g., ECHAM4/5 GCM Model) and the use of PRECIS (*Providing Regional Climates for Impact Studies*) model in Thailand<sup>13</sup> and Cambodia.<sup>14</sup> Regional

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<sup>12</sup> The FAO *CropWat* software could be readily applied to specific crops in the two districts in conjunction with CCTAMs. This tool has been refined over several years for direct use by agricultural extension officers to guide water allocation and use decisions about the right amount of water needed for crop irrigation.

<sup>13</sup> In Thailand, these predictions have been combined with a hydrological rainfall-runoff model SWAT (Soil and Water Assessment Tool) and the FAO *CropWat* decision support methodology used to calculate evapotranspiration, crop water requirements, scheme water supply and irrigation scheduling. See Rajamangala University of Technology, *Thailand Climate Change Adaptation Initiative Project, Final Report Database and climatic information is development to support the local climate change adaptation and decision making process Components 1.1.2 - 1.1.3*, Nov. 2011.

<sup>14</sup> In Cambodia, climate modelling (PRECIS and GCM models) has been used in combination with an analysis of historical and socio-economic impact of climate extreme events to estimate impact of climate change on agriculture sector and water resource; and to develop adaptation options and adaptation planning for climate change in agriculture and water resources in Prey Veng Province. See, Cambodia National Mekong Committee,

exchange on the alternative methods for generating climate predictions at a regional scale and assessing impacts on local water resources and agriculture may be a worthwhile effort since there are common parameters and issues.

### **3.2.2 Outcome 2 – Capacity Development**

#### ***Capacities of sectoral planners and agricultural producers strengthened to understand and address climate change – related risks and opportunities for local food production and socio-economic conditions***

##### Completed Activities

IRAS aims to have a direct capacity building effect. The project has provided a wide range of “training” for 976 persons (27% women) at the National level (260 persons, including 77 women), Provincial level: 300 persons, including 97 women, at the District level: 223 persons, including 71 women and at the Village level: 193 persons, including 43 women.

The Training Needs Assessment (2012) identified twelve topics for project support:

1. Change management skills
2. Climate change concepts: applied to Lao agricultural context and jobs
3. Gender, climate change and agriculture
4. Mainstreaming climate change and agriculture into policies and budget
5. Communicating about climate change and agriculture with GoL senior decision makers
6. Climate change science: data, models, software on climate change and agriculture
7. Climate change scenario planning and agriculture
8. Vulnerability & risk assessment (Provincial/district, PAFO, DAFO)
9. Agricultural Adaptation strategies
10. Water resources management at community level
11. Strengthening farm businesses
12. Disaster management

The RPs have completed extensive training activities for the land use planning, disaster management and CCTAM programs. Various other technical trainings have also been provided, including an international consultancy on *Effective Water Management and Water Harvesting for Agriculture Adaptation to Climate Change* which recommended multi-sector cooperative water management training and planning using GIS. Multi-sectoral training to enhance watershed planning and design of water management interventions and promoting the practice of Integrated Water Resources Management (IWRM) and Resilient Adaptation (diversifying crops, supplies, and economic enterprises) was suggested.<sup>15</sup> A long list of 47 capacity building and training recommendations has

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*The Impact of Climate Change, and Vulnerability and Adaptation Assessment on Agriculture Sector, Rice Production in Prey Veng Province*, Phnom Penh, Nov. 2012.

<sup>15</sup> Jeanny Wang Miles, *Water Budget Estimation for Agricultural Communities in Laos Project and Effective Water Management and Water Harvesting in support of Agriculture Adaptation to Climate Change*, March 3, 2013.



been provided in the Training Needs Assessment (including sorting out job descriptions within institutions) related to (1) Institutional Issues, (2) Individual Concerns, (3) Strategic Aspects, (4) Operational Matters and (5) Specific Relevance for Climate Change Adaptation/Resilience.<sup>16</sup>

#### MTE Comments

Training programs have helped to build awareness of climate change adaptation concepts and technologies/practices. There is a need to now ensure that further training is directly linked to government adaptation duties and to the model practices that have been or are to be targeted for demonstration and ongoing extension by IRAS project. Training that is intended for capacity development also requires consideration of the institutional conditions for effective use of these new skills and competencies. A results-based approach is promoted by UNDP with attention to the enabling environment, the organizational capacity and individual skills, and including monitoring and evaluating the effects of the newly acquired skills in meeting certain training objectives.<sup>17</sup> The ongoing training in IRAS could facilitate the implementation and operational refinement of the RP and NAFRI outputs, particularly CCTAMs and the proposed climate change information system.

Many of the training activities have probably been useful but difficult to measure in terms of specific results. It was not apparent what effects the training has had on the project's adaptation planning and extension programmes. An international consultant provided orientation to water balance studies and rainwater harvesting technologies but the follow-up use of the training toward specific capacity development objectives was unclear. The capacity development context for such training needs to be considered; training alone is seldom sufficient for realistic capacity development.

The institutional and operational barriers to mainstreaming adaptation practices within the government extension services should be considered in the next stage of IRAS (Output 1.3), with outputs linked at the district level wherever possible. The proposed CCTAMs may also need to consider agricultural water management issues alongside the other proposed modules.<sup>18</sup> The training that is proposed for CCTAMs, Land Use Planning and Disaster Management Plans will provide an introduction to climate-resilient practices but effective capacity to deliver such practices within the relevant government programs requires a much more systematic and focused approach to capacity development.

The Training Needs Assessment recommended that the PSU recruit a local "Capacity building adviser" with full-time responsibility to organise and coordinate training programs, liaise with other partners engaged in training in climate change adaptation & resilience building, facilitate curriculum design and delivery of workshops and mentoring programmes, and ensure the sustainability of the capacity building component of the IRAS project. There may not be sufficient time and resources to

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<sup>16</sup> Dr Christine Hogan, *Training Needs Analysis & Training Report*, Government of Lao People's Democratic Republic, IRAS Project, May 2012.

<sup>17</sup> See UNDP, *Capacity Development Practice Note*, Oct. 2008; and UNDP, *Capacity Development: A UNDP Primer*, 2009.

<sup>18</sup> "Application of Water Management components for other CCTAM development" was also noted in Jeanny Wang Miles, *Effective water management and water harvesting in support to agriculture adaptation to climate change (AA2CC)*, March 3, 2013, p. 32

launch a full scale capacity development program, but some expertise on targeted capacity issues related to the key outputs may be useful. The primary function of such expertise should be to (a) firmly establish the RP outputs in the government systems (e.g., Land Use Planning manual not yet amended with adaptation procedures, extension services curriculum not yet amended to incorporate CCTAM training materials, etc.), and (b) identify and where possible, address the institutional and human resource barriers to effective implementation of CCTAMs through the TSCs.

### **3.2.3 Outcome 3 – Adaptation Demonstration**

#### ***Community-based adaptive agricultural practices and off-farm opportunities demonstrated and promoted within suitable agro-ecological systems***

##### *Completed Activities*

The Project Document envisioned *demonstration sites that showcase community based rainfall capture, storage and adaptive irrigation systems in drought-prone agricultural areas* with a key focus on micro-watersheds. *Community-based adaptation measures will be piloted in selected communities to promote the diversification of crops, the introduction of drought- and flood-resilient crop options, resilient farming methods and low-cost water conservation/irrigation technologies in areas prone to diminishing or highly variable rainfall.*<sup>19</sup>

The project team noted that the early implementation of agricultural activities was significantly hampered by the delay of the initial CCTAM extension packages. In order to subsequently avoid delay in overall project implementation, a number of pre-selected, relevant activities were implemented as “on-ground confidence building measures”.

Field activities related to adaptive rice varieties, small livestock, aquaculture, water management, water harvesting and soil improvement. It was noted (PIR 2012) that “nearly all locations show that - if technically properly done - the market price is high enough to recover cost and to maintain a profit”. This will be a key to sustainability and replication. The project has been supporting a wide range of agricultural diversification and domestic water supply activities. Since June 2011, an estimated 31 activities have been undertaken in Component 3 related to 1) Food security, 2) Water management, 3) Flood control, 4) Drought control, 5) Training and capacity building, 6) Workshops/Meetings, and 7) Surveys.<sup>20</sup> Further suggestions have been made to expand the program to address many other training and field activities.<sup>21</sup>

Pilot activities have been initiated for Farming System diversification, Crops/Agriculture/Vegetable /Fruits, Fisheries/Aquaculture, Livestock, Off-farm income generation and “Safe-guarding Land”

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<sup>19</sup> United Nations Development Programme, Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts Project Document, 2011, p. 35.

<sup>20</sup> Somphone Inkhamseang, IRAS Mid-Term Evaluation (M & E for MTE), October 28, 2013

<sup>21</sup> Dr Christine Hogan, *Training Needs Analysis & Training Report*, Government of Lao People’s Democratic Republic, IRAS Project, May 2012; Jeanny Wang Miles, *Report 2. Water Harvesting and Water Management Options for Agricultural Communities in Laos Effective water management and water harvesting in support to agriculture adaptation to climate change (AA2CC)*, March 3, 2013, pp. 32-33.

measures at the target districts and villages. Annex 5 summarizes project staff observations on the strengths and weaknesses in achieving some of the key outputs (3.3-3.5):

- ✓ *Close but slow collaboration with PAFOs and DAFOs*
- ✓/× *Tendency for orientation on existing priorities by PAFO/DAFO*
- × *Lack of local experience (both GoL and project staff) in project management and application of NIM rules*
- × *Fast-tracking of CCTAM extension process required*
- × *Fast-tracking of agro-ecological pilot activities required*
- × *Re-orientation in approach required to increase efficiency, e.g. the number of direct beneficiaries, and the quality of results*
- ✓ *Substantial community contributions*
- × *Budget available for these activities is too low to match the needs*
- × *So far, limited spill-over effect from international mission on water balance in watersheds, useful technical reports*

#### MTE Comments

The strategy for Component 3 seems to be to support any and all sustainable agriculture and water harvesting activities in the name of climate change adaptation. Watershed management scale activities may also be added through the agro-ecosystem management sub-component and other activities, further stretching the project scope. Although the project team have effectively organized and implemented an array of small-scale activities that have benefited many households, large scale transformation to climate-resilient agriculture through this broad approach is questionable.

The scope of outreach to 35 villages across four districts has been impressive but the field visits also suggested a need to provide higher quality demonstration sites that illustrate best practices and provide evidence of agricultural results from investment in enhanced adaptation practices. Although it is early days, the field activities have not been sufficiently focused on demonstrating the technologies for the purpose of replication and scaling-up. An exception may be the distribution of improved rice varieties and related inputs. The improved rice varieties have reportedly been adopted by other nearby farmers outside of the project so this objective appears to have been achieved. But even here, the project has followed government prescriptions<sup>22</sup> which may lead to distortions since the interviews with farmers consistently revealed that they use at least half the prescribed fertilizer amounts (due to costs) and will not continue after the project with the levels of fertilizer application currently provided by the project. Experience elsewhere also shows that there are also limitations to improved varieties in high risk flooding and drought zones that need to be better understood .

The enhanced water availability through household rainwater harvesting has been greatly appreciated by the beneficiaries but, notwithstanding the domestic water supply improvements, the benefits for climate resilient agriculture are less apparent and may not directly serve further

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<sup>22</sup> TDK 1 sub 1 manual prescribes utilization of fertilizer depending on soil and other factors: 1st under surface fertilizer formula 15-15-15 in case of sand soil specie in ratio (150-200 Kg per Hectare), 2nd after transplanted 45 days the farmers utilized fertilizer formula 46-00-00 in the ratio (100 -150 Kg per Hectare) depend on soil. Average 300 kg per hectare.

demonstration needs for agricultural resilience. Water supply and sanitation improvements can have an impact on farm labour due to reduced time spent collecting water and improved health conditions, but the relevance for stimulating climate resilient agriculture is less obvious in the Lao field sites visited. The further support for improved rice varieties and for domestic water supply may not be necessary except for dissemination of performance information that could facilitate lessons and replication.

More integrated farming methods, improved cropping systems and water use efficiency measures could be promoted at selected sites in conjunction with the CCTAMs implementation. Livestock promotion is an important part of agricultural diversification but needs to be selective in the targeted beneficiaries and on-lending requirements, and primarily aimed at integrated farming demonstrations.

### **3.2.4 Outcome 4 – Monitoring and Learning**

#### ***Adaptation Monitoring and Learning as a long-term process***

##### Completed Activities

Capturing project lessons and sharing project knowledge are the main themes suggested for this component in the project document. The primary activities to date relate to enhancing communication and understanding of the project and generating various media products and documents posted on project websites.<sup>23</sup> The project has also provided support to DNDMCC and DAEC in the promotional materials for their sub-components.

Various opportunities are to be explored to share the experiences of IRAS. These include: learning sharing workshops and/or conferences; linking with media to disseminate documentaries on project beneficiaries; and the establishment of a one-stop shop web portal dedicated on knowledge emporium. The details of these options are explained in a Draft Knowledge Management Plan.<sup>24</sup>

##### MTE Comments

The project's communication outreach has been impressive but there is a real need to document and disseminate model sites and practices, including relevant decision support tools that can provide useful knowledge development and learning processes. This component so far seems to emphasize the distribution of promotional project information and technical reports. The IRAS experiences with (a) multi-sectoral planning processes (collaborative links between subcomponents) that strengthen agricultural climate resilience, (b) tools that assist agricultural decision making (e.g., water balance models, CCTAMS) and (c) on-the-ground technologies' applications could be captured for their strengths, weaknesses and further opportunities. A rigorous knowledge management strategy and 'evidence-based' quality information seems to be necessary to achieve some meaningful learning results under this component. Components 1-3 could highlight the experiences and lessons that have recognized value for other climate change programs. Ideally, an ongoing knowledge system could

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<sup>23</sup> Fengthong Lattana, Report the implementation of Media and Publication, 2013.

<sup>24</sup> Government of Lao People's Democratic Republic, *M+E Manual for IRAS*, October 2011, p.25

also be designed to incorporate similar information on *processes, tools and technologies* that emerge from the many other climate change projects in Lao PDR.

### **3.2.5 Progress toward project objective**

The target for achievement of the project objective is described as “a framework for climate change resilient agriculture is available and being used by GoL in activity planning for widespread introduction of adaptation measures.” The 2012 annual progress report (PIR) notes that the framework is “gradually evolving in uneven phases” and ... “the importance of resilience slowly becomes a subject for discussions in policy and strategy development”.<sup>25</sup>

The project has provided input to several policy discussion processes and appears to have had some influence on the drafting of policy and legal documents. Some progress has been made but it is difficult to determine whether the government is committed at this time to a substantive climate change policy framework, or whether a set of policy support and technical outputs are the best that can be expected.

The progress toward a climate resilience framework in agriculture may be reflected in the extent to which climate change adaptation is addressed in program strategies, budgets and operations of the agricultural extension services, land use and disaster planning, and district development planning. Productive outputs generated under Components 1 and 2 of the project and development impacts under Component 3 offer some measure of evolution toward a climate resilient agriculture sector.

There may also be some potential opportunities to use the UNDP project, *Support to an Effective Lao National Assembly Joint Programme (SELNA)* to enhance awareness of political officials about the climate change risks that face the country and the availability of sustainable adaptation measures.

## **3.3 Adaptive Management**

### **3.3.1 Work planning**

Uncertainties about the suitability criteria for activities under the project strategy and dependence upon local capacity to prepare concept proposals for consideration at quarterly meetings places some stress on the work planning process. The field activities under Outcome 3 have not had the advantage of being guided by the technical analyses and plans in Outcomes 1 and 2. The relevance and quality of concept proposals in Component 3 is a problem that the project team has been actively trying to improve. But the iterative concept proposal process remains a source of delays in funding of about two months which in turn creates implementation problems for the field partners. One solution is to develop a more complete AWP that provides general screening and technical clearance for all of the major activities to be implemented during the year, with financial request based on quarterly workplans.

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<sup>25</sup> PIR, June 2013, p. 4-5.

### 3.3.2 Finance and co-finance

Tables 1 and 2 summarize the budgets and expenditures to date. The disbursement rate of over 90% of the budgets is a good reflection of activity progress. The high expenditure for Outcome 1 and low amount for Outcome 2 in 2011 may be due to errors in allocation of certain expenditures. The jump in project management costs in 2012 reflects increases in salaries that were not originally anticipated.

The main efficiency issues relate to the problems associated with delays in concept proposals and financial transfers, which reportedly create problems for both the PSU and the implementing partners. The coordination tasks also impose some efficiency constraints especially when disaster management is currently divided between agencies, and the internal government coordination between national functions and local line agency functions is not always efficient. Similar to other projects, the problem of reporting on financial disbursements by outcome categories and outputs is also constrained by the UNDP ATLAS accounting system which uses a different reporting structure.

**Table 1: Project Annual Budgets and Expenditures (\$USD)**

	2011			2012			2013 to Sept. 30, 2013			Total Budget Allocated
	Budget	Expend.	%	Budget	Expend.	%	Budget	Expend.	%	
Outcome 1	62,500	117,167	187%	125,000	116,840	93%	215,900	189,776	88%	498,070
Outcome 2	85,800	8,722	10%	161,200	142,137	88%	322,700	243,687	76%	781,770
Outcome 3	80,020	95,611	119%	328,300	330,189	101%	607,400	408,409	67%	2,699,190
Outcome 4	3,000	1,450	48%	112,100	40,509	36%	87,100	102,934	118%	210,780
Proj Mgmt	70,140	62,476	89%	108,900	134,045	123%	136,900	67,354	49%	255,640
Total	301,460	285,426	95%	835,500	763,720	91%	1,370,000	1,012,159	74%	4,445,450

**Table 2: Financial and In-kind Contributions (\$USD)**

	LDCF	UNDP	GoL	Total
Outcome 1	498,070	775,000	1,320,000	2,593,070.
Outcome 2	781,770	850,259	1,608,469	3,240,498.
Outcome 3:	2,699,190	475,000	1,513,000	4,687,190.
Outcome 4:	210,780	475,000	323,500	1,009,280.
Total	4,189,810.	2,575,259.	4,764,969.	11,530,038.

Source: IRAS Project Support Unit

The contributions by the funding partners appear to be in line with project design co-financing expectations (Table 2). Government staff contributions are significant, although no detailed tabulation is available. In the absence of data, two evaluation tests are normally applied to the issue:

instances where a lack of government support or resources may have delayed or constrained activities, and whether management of field activities have experienced a shortage of government staff involvement. No such instances were noted during the MTE discussions. Similarly, no 'observations on project efficiencies' were identified in the two financial audit reports.

### **3.3.3 Monitoring and reporting**

The stated objective of the M&E system is to facilitate the project management staff to:

- Make sure that operational activities are planned and implemented on time and compatible with the project objective;
- Establish learning environment and identify likely shortfall in the expected performance and share success endeavours;
- Develop appropriate remedial actions;
- Encourage the key stakeholders to initiate remedial actions, if needed; and
- Establish the baseline data on outcomes as basis for mid-term and final evaluation of the project impact.<sup>26</sup>

There were many personnel difficulties in the initial stages of establishing the M&E system and issues related to the complexity of the sub-component RP reporting. However, these have been overcome and a comprehensive database is now operational. The progress reports on activities completed have been effective and timely. Further refinements may be needed to associate the completed outputs with outcome achievement measurements.

In keeping with the objectives of the monitoring system, both the RP outputs and the field activities require more attention to the measuring the quality of the outputs. This was highlighted in the field visits and interviews with some questions about (a) how effective the outputs, such as sub-contracted CCTAMs and land use and disaster management plans will be in addressing the assessed needs and the substantive climate resilience issues and (b) the focus on rehabilitation of small scale irrigation systems which have failed for various reasons and warrant some level of engineering oversight. These are quality assurance concerns that the PTF is not designed to handle.

### **3.3.4 Risk Management**

The risks noted in the project document are still valid: *fragmentation of project into usual standard operations implemented by different agencies (missing the strategic CC objective and the core problem), and inconsistent management structure caused by too many stakeholders on several levels.*<sup>27</sup>

Annex 7 provides an updated view of the project risks based on the MTE discussions. There are twelve key risks identified as listed below. Potential mitigation actions are also presented in Annex 7 in regards to:

- Weather events exceed the capabilities of the adaptation technologies

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<sup>26</sup> Government of Lao People's Democratic Republic, *M+E Manual for IRAS*, October 2011.

<sup>27</sup> IRAS Project Document, 2011, p. 43.

- Policy advice may not lead to actual policy change or major commitments to climate change adaptation in agriculture
- Failure to adequately integrate the climate change planning into government programs
- Non-sustainability of the proposed climate change information system
- Lack of capacity and preparedness to implement the CCTAMS
- Design or management failure of the rehabilitated small scale irrigation systems
- Demonstration sites are not sufficiently organized to present best practices and reliable data on comparative results
- Community disinterest in using and maintaining the community farm ponds
- Land ownership conflict in community irrigation systems is stimulated by the project activities
- Access to new crop variety seeds limits spread of the crop adaptation innovations
- Fertilizer inputs provided by the project will not continue by farmers after the project ends
- Slow progress because of required institutional arrangements

### **3.3.5 Sustainability potential and exit strategy**

The project team anticipates that the project outputs on the national, province and district level will “merge” into line agencies according to GoL decentralization policies. On the national level, the project envisages the development of a new research centre “Climate Change Adaptation in Agriculture” within the existing NAFRI structure which will accommodate and apply - and further develop – the relevant project outputs.<sup>28</sup>

Project sustainability can usually be enhanced by (a) establishing technical standards or procedures for adaptation practices within the relevant organizations, (b) training stakeholders in the application of these practices, (c) integrating the project outputs into government or other organisations and services, (d) promoting the ‘business case’ for continual investment in the project activities by governments and households, and/or (e) mobilizing community involvement and organisation to maintain the project’s investments (including management plans and user fees, etc.).

An exit strategy typically involves actions such as strengthening the responsible institutions so that they are able to continue maintaining and expanding the project results, developing targeted microfinance and/or cost recovery processes, related advocacy and mainstreaming into national development plans and budgets, and gradual withdrawal of technical support with occasional phase-out mentoring and on-call support.

In the case of IRAS, the primary sustainability mechanisms are the integration of the climate resilient planning and extension outputs into the government structures and programs; and measures to document and promote the agricultural productivity and income effects of the model farming practices that have been demonstrated so as to encourage replication and scaling up.

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<sup>28</sup> Project Manager Khamphone comments on draft report.



Sustainability potential and the exit strategy could also be assisted by the following strategic actions:

**(i) Maintaining the climate change information system developed by NAFRI under Component 1**

Establish a clear *mandate and user base for the climate change information system*. Identify the functions that the system will serve, including systematic monitoring of national progress toward climate resilience and green growth in the agricultural sector;

**(ii) Ensuring the CCTAMs are actively utilized and being implemented in the extension services**

Prepare an *extension services capacity development plan to deliver the CCTAMs* throughout Lao PDR, drawing upon the pilot testing during the final two years of IRAS. The extension materials are almost prepared and staff in the project districts will receive training but the institutional capacity for effective use and scaling up will need to address TSC and DAEC strategies, resource and capacities.

**(iii) Assessing the knowledge development outputs from Component 4, and building upon the project experience within NAFRI to identify adaptation research priorities**

Formulate a *national action research agenda for NAPA follow-up knowledge management* based on the priority gaps in climate change adaptation tools (e.g., water balance methods, hydro agro-economic models, community vulnerability and assessment surveys, etc.), flood and drought tolerant crop varieties, intensification of rice cultivation, water use efficiency tools (e.g., CropWat) and other cross-cutting issues for knowledge development. The aim would be to develop national consensus on the research agenda and to position NAFRI as a central coordinator and advisor on adaptation technical methods and data sources.

### **3.3.6 Catalytic role, replication and impact**

The potential for the project to stimulate a major effect on adaptation practices in the agricultural sector will depend primarily upon the effectiveness of the CCTAMs and the available adaptation technologies that are accepted by farmers. The use of improved rice varieties is the most notable replication success, with anecdotal information on the expansion of flood and drought tolerant seed varieties beyond the project sites.<sup>29</sup> Farmer field training and exposure to demonstration sites, and the documentation of productivity and income performance of the adaptation measures will affect the level of uptake by farm households.

Land use plans and disaster preparation plans that address climate change adaptation could lead to established protocols with greater priority on climate change, although this will depend upon RP commitment and resources. The enhanced awareness of climate change increases the potential to catalyze educational programs especially at the school community ponds and through a proposed adaptation centre at NAFRI. A large scale uptake of climate-resilient practices however is not yet apparent at the field level.

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<sup>29</sup> There are significant constraints to rice seed multiplication including equipment, labour and quality control - See Bounthanom BOUAHOM, *Seed industry development in Lao PDR*, Mekong Institute, Khonkean, 12-15 December 2012.

The main impact of the project may be on the accelerated shift toward new varieties of rice crops in the project districts, a trend that is occurring throughout Lao PDR. The concept of subcontracting RPs as part of the implementation arrangements to directly engage the appropriate agencies may be a useful approach that could be refined for future projects.

### **3.4 Management Arrangements**

#### **3.4.1 Overall project management**

The project management arrangements involve a **Project Board** that provides executive direction, a **Project Support Unit (PSU)** which manages the project delivery, finances and monitoring and reporting, **Project Task Force (PTF)** with technical staff from departments, provinces, districts, and groups that provide technical advice and coordination, and a **Local Integration Platform (LIP)** which is the technical working group of local stakeholders that facilitate field implementation. **Technical Service Centers (TSC)** and their agricultural extension staff are also expected to be involved in community mobilization and implementation on the Kum Ban (commune/village) level. The project structure also includes the four **Responsible Authorities (RPs)** who are contracted to provide specific outputs as per their individual Letters of Agreement with the project.

The Project Board (Steering Committee) has met twice (Oct 10, 2013 and Oct 7, 2012). Like most other steering committees, general information is exchanged but substantive details, such as delays in RP agreements, difficulties with the local concept proposals approvals, NIM Rules conformance by the agencies, and the problems with establishing an M&E system, were not discussed at these meetings. (There is a tendency to defer many operational issues to informal discussions and mid term evaluations.) Board members provide endorsement of annual workplans and budgets with added comments on issues that the project should consider. The need to “institutionalize” the adaptation activities across all components and regulatory means was noted at a recent board meeting.

Two Annual Review Meetings have also been held with the project partners to review progress and set out the priorities for the following year. The second review meeting highlighted the need to have more coordination among the agencies. The Project Board oversight functions need to be highlighted from the project document: *There is a risk of limited technical capacity at the demonstration sites to monitor project lessons and synthesize their value for policy-related processes. In order to mitigate against these risks, the project will engage government officials at high levels to formalize a multi-sector Project Board responsible to oversee the project and its deliverables.*<sup>30</sup>

The project management team has been proactive in responding to various issues, most notably to address the delays during the early stages of the project, and the development of the Letters of Agreement (LoAs) and commissioning of RPs to implement individual sub-components (not in the

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<sup>30</sup> IRAS Project Document, 2011, p. 42.

ProDoc). Various actions have also been taken to improve the activity planning, financial disbursement procedures and project activity completion reporting problems. More direct management intervention could have reduced the drift toward domestic water supply activities and uncertainties in the project strategy for appropriate field activities (concept proposals).

The Project Task Team Project Task Force (PTF) is the national technical working group that meets quarterly (originally planned to meet bi-monthly) to discuss a wide range of operational topics. The PTF was intended to serve as *a pool of additional expertise that can be utilized by PM and PSU to improve quality of project implementation and enhance meaningful stakeholder engagement on the level of project planning*<sup>31</sup> but based on the MTE field visits this added technical assistance function does not appear to have been used as planned since much of this assistance is needed at the site level. The regular meetings of the PTF are appreciated by the implementing partners, although communication gaps on specific program details seem to remain based on the discussions held with stakeholders.

The Local Integration Platform (LIP) is the provincial /district technical working group of government staff who are directly engaged in organizing and delivering many of the project activities and participants in training programs. The integration of activities on local level (province, district, kum ban) is most essential for the success of the project, and the LIP is to *provide coordination and guidance to relevant local stakeholders, implementers, beneficiary groups*. The LIP has been an effective means of organizing the subnational activities, recognizing the capacity limitations of the agencies and their staff to understand climate change and the soft project strategy.

The TSCs are expected to facilitate delivery of the CCTAMs through their agricultural extension services. Further training is planned to enhance the capacity of these recently established centers which have some definite capacity constraints.

IRAS is designed to address a broad set of adaptation barriers and opportunities involving many different implementing partners. It needs pro-active management and strong communication and monitoring processes to maintain an effective delivery structure and process. Reasonable efforts have been made to provide this but some of the implementing partners expressed a desire for more direct consultation to resolve operational issues. With the qualifiers regarding the need to strengthen some of the engineering technical quality assurance, and the need to ensure full mainstreaming of RP outputs, the management structure and arrangements have been adequate.

### **3.4.2 Quality of executive of implementing partners**

The implementing partners, led by NAFRI and the Project Support Unit (PSU), have been actively organizing and implementing project activities and guiding the Technical Coordinators (TCs), Provincial Coordinators (PCs), Responsible Parties (RPs) and line agencies in their delegated duties. The lack of government experience with climate change adaptation, the administrative challenges of coordination government and UNDP/GEF procedures, and personnel/consultant turnover and

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<sup>31</sup> IRAS Project Document, 2011, p. 64.

weaknesses may have affected the efficiency of the project. But the activity completion and financial disbursement rate have increased significantly after the start-up delays were addressed. The delicate job of coordinating government agencies is a difficult one in this compartmentalized project. The PSU has provided regular consultations with the RPs and other partners. However, more supervision and guidance on the quality of the outputs being generated may be needed (see Section 3.2.1 above).

Despite the quarterly PTF meetings, some of the RPs are requesting more direct consultation and support in addressing operational issues (e.g., financial delays). The interviews also suggested that subcontractors sometimes view IRAS as limited program funding for specific outputs rather than part of a coordinated strategy for CCA. Some of the RP activities also seem to be independent with no vision of how the improved land use plans, disaster management plans and extension programs will be harmonized at a district and village level. No consideration has been given to potential contradictions/synergies if they are to merge at the district level. It would be optimum if the project could test a multi-agency approach with disaster prevention/response strategies and customized extension focus on particular land use zones. Short of this ideal, better communication to discuss such synergies between sub-components would provide several benefits for NAPA follow-up purposes as well as project operations.

### **3.4.3 Quality of support provided by UNDP**

Continuous involvement of UNDP staff has been required to effectively manage the project within the NIM rules. Meetings are held monthly with project staff. Some of the implementation issues could have been more thoroughly anticipated at the Inception Stage. However, additional guidance on the NIM procedures was provided to overcome some early problems, and the slow rate of activity in the first year required measures to quickly recruit staff and to accelerate progress. Overall, UNDP has been generally responsive to the issues that have emerged and give the project the necessary management attention that it requires.

## **4.0 Conclusions and Recommendations**

### **4.1 Rating of Performance**

In accordance with UNDP/GEF evaluation requirements, the project has been rated according to the criteria described in Annex 3), as shown on Table 3.

The terms of reference call for an assessment of the problem addressed by the project, the underlying assumptions, the relevance of the project strategy (and theory of change) and whether it provides the most effective route towards expected/intended results and the general functionality of the results framework. The project design proposes a major transformation of the agricultural sector based on the four separate activity components and the various implementing partners.

**Table 3: Rating of IRAS Project Performance**

Rating category	Rating	Reasons for rating	Implications of the rating
<b>Project Design</b>	<b>MU</b>	An activity-based approach to an ambitious set of expected results but with some uncertainties about the implementation strategy and design assumptions. No central approach or method to define how the array of outputs will lead to climate resilience outcomes. Insufficient scoping of the activities that are “necessary and sufficient” to produce the planned results. Weak integration across the project components toward common results, and technical analyses that has yet to guide the demonstration activities in the districts.	The project needs to be much more focused on a key set of discrete and measurable results, such as the effective application of CCTAMs in extension services, farmer organisations and community institutions, and the sustained use of these adaptation technologies and practices to enhance crop productivity and diversity, and water availability and use efficiency.
<b>Project Results Progress</b>	<b>S</b>	Activities accelerated over the past year and key outputs produced or underway. Annex 5 lists the extensive range of activities completed. Overall, the progress has been good, but there remain concerns about quality and sustainability of some of the outputs.	Given the broad-based project design, the project has completed a lot of activities but more emphasis is needed on the results from technical studies, enhanced capacities, demonstrations and the lessons learned.
<b>Outcome 1</b>	-	Progress aimed at a “functional system for the collection, distribution, and internalisation of climate-related risk information at the national, district, and local levels”.	Further refinement of the proposed system and its role within government should be encouraged.
<b>Outcome 2</b>	-	A wide range of “training” for 976 persons (27% women) at the National level: 260 persons, including 77 women, Provincial level: 300 persons, including 97 women, at the District level: 223 persons, including 71 women and at the Village level: 193 persons, including 43 women.	A lot of awareness-raising and understanding of climate change, but gaps remain in the capacity to deliver the key outputs such as CCTAMS, which creates doubts about sustainability.
<b>Outcome 3</b>	-	Many field activities and distribution of technologies to promote rice varieties, small livestock, aquaculture, water management, water harvesting and soil improvement.	The quality and sustainability of some of the activities need to be considered, along with demonstration and replication potential.
<b>Outcome 4</b>	-	Extensive communication products and website technical information and reports disseminated.	More emphasis on development and outreach on relevant tools and best practices
<b>Project Relevance</b>	<b>S</b>	Significant climate change risks are being addressed and the project is aligned within the government systems. Climate stress related to increased variability, flooding and drought events is a major concern but it will take time to develop a	Further progress on integration of adaptation into government systems can be enhanced through better communication and selective linkages between the project components.

		coordinated, multi-agency approach. The project has initiated mainstreaming through the multiple partnerships with various agencies.	
<b>Project Management - NAFRI Executing Agency role</b>	<b>S</b>	Active project implementation and oversight of a multi-partner project, although stakeholder communication and operational issues (workplan uncertainties, delays in financing) still remain. Major coordination challenges being addressed but no core implementation strategy also hinders direction. Inability to fully resolve operational issues suggests a rating at the low end of 'satisfactory'.	The project team needs to concentrate on communicating a well-defined strategy for the final two years, and addressing the substantive issues that confront their partners. Greater attention to the quality and sustainability of outputs is suggested.
<b>Project Management - UNDP Implementing Agency role</b>	<b>S</b>	Responsive to project strategy concerns and operational issues. Design and inception phase guidance should have had greater scrutiny of the achievable results and the effectiveness of the project task force. UNDP expertise on capacity development could have been usefully applied to the eclectic range of training activities.	Greater quality assurance and control is needed in the project inception phase to reduce the potential for similar design and operational issues. It would be useful to have more direct guidance from UNDP on capacity development.
<b>Monitoring and reporting</b>	<b>S</b>	Comprehensive tracking of activities and outputs under difficult results framework indicators. Realistic measurement of end results to be determined. Timely reporting of project progress. Quality of outcome indicator data needs review.	The M&E system could usefully provide representative sampling of site performance that could assist adaptation learning under Component 4.
<b>Project Sustainability</b>	<b>Moderate unlikely/uncertain</b>	<p>Direct involvement of the relevant agencies will support ongoing commitment but other than dissemination of new rice varieties, the short term project period may not be sufficient to maintain momentum in establishing climate-resilient farming practices. The elements of potential sustainability are not yet fully apparent – institutional and policy changes, technical and institutional capacity to guide adaptation, adoption of new technologies by farmers, financial drivers to promote replication, subnational development plans and budgets that support adaptation, etc.</p> <p>The project expects that the decentralization policy of government and a new climate adaptation center at NAFRI will be the principal means of sustaining the project, assuming that funding is available.</p>	Except for the notable acceptance of new varieties of rice in this and several other projects in Lao PDR, the MTE interviews did not indicate a high level of potential self-sustainability after project completion. This may change in the final two years as climate change adaptation becomes embedded in the government programmes and farmers begin to see the advantages of climate smart methods. But the short time remaining and the general reluctance to refine the project strategy (many activities striving for vague results) at the moment does not suggest high potential for substantive sustainability.

But the means by which this broad range of activities will jointly affect climate resilience results in the four districts and 35 villages is not well-defined in the project design or recognized by the project team and implementing partners, who often have a narrow view of the project concept and the expected results (see section 3.1.1 above).

Regarding the progress results under the four outcomes, the activity and output completion rate has been satisfactory although there are concerns about achieving the outcome level targets. The project management functions have also been generally satisfactory given the complexity of the project. Monitoring and reporting is also rated as satisfactory based on the comprehensive tracking system and the timely reporting. Sustainability is facilitated by the direct involvement of the responsible government authorities, but the vague project strategy, capacity limitations, coordination issues, and relatively short time left for the project present uncertainties about what will be maintained after project completion.

## **4.2 Conclusions**

### ***General***

1. The overall performance of the project is summarized in Table 3. The lack of a distinct project implementation strategy has hindered understanding of the project concept and the expected results. Nevertheless, the project has completed a wide range of activities and outputs that provide a foundation for enhanced climate resilience if increased integration, focus and sustainability can be addressed during the final two years. Implementation progress is therefore rated as Satisfactory, with some important qualifications as summarized below. The strategic priorities for re-focusing the project are presented in the recommendations.
2. IRAS has engaged about 27 government and non-government organisations and thousands of households in 35 villages covering four districts in a wide range of climate change adaptation activities. The reach of the project is extensive and good progress has been made in a short period to complete the planned activities. With two years remaining, a major review of the project strategy and consolidation of results and priorities are timely and supported by the stakeholders.
3. A dominant feature of the adaptation response in Lao PDR has been the development and use of new flood and drought tolerant rice varieties. NAFRI has been directly involved through the *Rice and Crop Research Center*. IRAS project has clearly helped to accelerate the uptake of these new varieties in the four project districts, such that their use has spread beyond the project beneficiaries and communities. Government recommended fertilizer inputs provided by the project are much higher than farmers normally use, which could distort the long term yield data. Comparable data on uptake in nearby non-project districts would be useful to assess the observed shift in crop varieties that may be attributable to the project and the seed supply availability factors.

4. Water availability in the targeted communities has been enhanced through proven rainwater harvesting technologies that store water for several months and groundwater surveys to assist borehole construction. The direct benefits for climate resilient agriculture are less apparent from these domestic water supply investments (although they contribute to household food security and health). Construction and rehabilitation of farm ponds have also been funded but it is too early to determine results. Model sites worthy of best practice demonstration value could not be found during the selective field visits, although these sites are in the early development stages.

### ***Project Design***

5. The project is heavily compartmentalized into sub-components that are being implemented by NAFRI, the Responsible Parties and the provincial and district authorities. There are few linkages between the sub-components and the preferred sequence of technical analyses feeding into district and community field adaptation activities has not been possible due to timing and scale of the technical work. Coordination is a major challenge for IRAS project, an experiment in multi-sectoral, multi-agency project delivery arrangements. The project design does not easily facilitate a central concept or 'theory of change' within a project implementation strategy that links the various sub-components and participant groups toward a common set of outcomes. The planned information system, adaptation framework, capacity development and demonstration results need further elaboration and a focus on sustainable outputs.

### ***Project Operations***

6. Field activities have been based on proposals submitted by the local teams led by the Technical Coordinators (IRAS) and the Provincial Coordinators (MAF). The intention has been for adaptation activities to emerge from the grassroots level. But it is clear that these teams require more clarity about adaptation opportunities that fit the project requirements. The iterative process of developing and reviewing concept proposals carries some uncertainty, time pressure and funding delays. It is a key issue that needs to be resolved through more intensive, priority-setting at the early Annual Workplan stage. Intensive facilitation by the IRAS team in the work planning process is needed not only for district levels but also all Responsible Parties.
7. The knowledge base for climate change adaptation under Component 1 is being developed through policy advocacy, technical assessment of climate scenarios and mapping of district vulnerabilities and development options, and information systems. Good progress is being made on these activities although the potential use of the planned outputs will need further consideration, including possible implications for the outputs being generated in Components 2 (capacity development) and 3 (field demonstrations).
8. The capacity development under Component 2 has provided training and awareness-building covering many categories. Almost 1000 participants have been engaged in training of some sort. The most important aspect has been the training to implement the key outputs from the project – various climate resilience plans and extension modules. In addition, institutional capacity to utilize these outputs is a factor in achieving results from the project. The readiness of the TSCs



and the extension officers to implement the important CCTAMs that are being produced by the project will be critical to the success of IRAS project.

9. The field activities under Component 3 are expected to demonstrate best practices and provide evidence of the benefits from field trials of various adaptation measures. More time may be required to determine such benefits, but no structured, organized demonstration trials were observed and the quality of the small scale water management and agronomic interventions needs improvement at some of the sites. A focus on selected model demonstration sites aimed at promoting replication is needed.
10. The knowledge development and learning activities under Component 4 have so far mostly focused on general awareness about climate change and advertising the project activities. Extracting adaptation lessons and methods from IRAS and potentially from other adaptation projects in Lao PDR, may be a bigger learning task if this component aims to disseminate and share specific strategies and methods that warrant national attention and learning.
11. The rehabilitation of small-scale irrigation systems is a focus of some forthcoming field activities. The reasons that these systems fell into disrepair (e.g., structure failure, maintenance neglect, water scarcity, user conflict) needs to be addressed in the solutions being funded by the project. In some cases, particularly the larger irrigation rehabilitation proposals being considered, more rigorous quality assurance in the design and construction is needed.
12. The CCTAMs do not include a module on agricultural water management. This seems to be an oversight, unless the missing water use and efficiency extension packages are available elsewhere. The CCTAMs should directly support the field demonstrations of climate change adaptation under Component 3.

### ***Project M&E***

13. Considerable effort has gone into establishing the project monitoring system after some early difficulties. The generality of the project design and results framework present measurement and attribution challenges. Nevertheless, a comprehensive database for tracking activities and outputs has been established and this will serve to document achievements, including potential information on the comparative benefits of adopting specific adaptation practices.

### ***Project Management***

14. The Project Task Force (technical work group) meets quarterly and provides a means of internal reporting and discussion between the sub-component partners. However, the RPs still have a relatively narrow view of their roles in the project that could limit climate resilience mainstreaming effort. The RP concerns are dominated by funding delays and overall institutional capacity limitations. Further consultation is needed to address specific concerns and to monitor and guide progress in achieving the terms of their LoAs. The project RP modality is important for providing lessons for future projects under similar LoA implementation arrangements.

15. The first priority for project management during the remaining two years should be to consolidate and focus the project activities on strategic priorities that have the potential for sustainable results (see recommendations). The project may be trying to achieve too much in too many areas without sufficient results focus for the time remaining.
16. The second priority for project management should be to communicate this two-year strategy and to actively facilitate its implementation with the project partners, including enhanced dialogue on reducing delays in financial transfers. The complexity and compartmentalization of the project inhibits a common perception of expected results.
17. The third priority for project management should be to monitor and disseminate reliable information on the results and lessons from adaptation activities that can present the institutional and economic case for investment in adaptation by farmers and governments. The full performance data on these activities have yet to emerge from the project sites which are in the early stages of development.

### **4.3 Recommendations**

#### ***Strategic Workplan***

**Recommendation 1:** prepare a strategic workplan for Jan 2014 – Dec 2015 that focuses on the key outputs that have an impact on demonstrating and replicating feasible adaptation priorities and technologies, in conjunction with CCTAM implementation and demonstrations of integrated farming and small scale irrigation efficiencies. The workplan should also reflect the priorities identified in the other recommendations regarding capacity development, strengthened linkages and exit strategy.

**Recommendation 2:** undertake an Annual Workplan for each district that sets out the agreed concept proposals to be developed, the timetables for approval and implementation, and any technical assistance that may be required. PSU staff should work with the LIPs to select local concept proposals at the beginning of each year in order to improve project efficiencies.

**Recommendation 3:** develop a CCTAM for smallholder agricultural water management, including related practices for conservation agriculture in drought areas, water use efficiency measures and farm pond management including methods to reduce pond seepage and evaporation. A water management CCTAM should draw on some the issues experienced to date (e.g, seepage) at existing sites and complement the integrated farming approach.

**Recommendation 4:** assess and enhance the institutional capacity of the project area TSCs and related extension teams to implement the CCTAMs in the project areas. Provide targeted institutional development support alongside training of the extension staff, using the project demonstration sites as appropriate. A rapid assessment of TSC capacity may be required at selected sites where there is high potential for demonstration benefits and showcasing best adaptation practices.

**Recommendation 5:** direct the newly-appointed Training Coordinator to focus on specific capacity gaps associated with the key outputs that the project is interested in sustaining. In conjunction with a strategic 2-year workplan, this includes strengthening the institutional capacities, as appropriate, to effectively utilize the enhanced skills that are to be generated by the training program. The training should be aimed at facilitating key project results.

### ***Strengthened Linkages***

**Recommendation 6:** identify and assess the implications of the district climate scenarios for the Land Use Plans, the Disaster Management Plans and the application of CCTAMs within the project districts. Facilitate use of the climate scenarios in the relevant adaptation programs within government, drawing upon the project experience in the four districts and the international experience shared at the 2014 conference. The climate change impact analysis should illustrate a model approach for district adaptation planning in Lao PDR.

**Recommendation 7:** design the agro-ecosystem management sub-component to complement the site demonstrations in Component 3, and to integrate the planning processes (land use, disaster management, CCTAMs) with ecosystem-based village/catchment area interventions. Use the AEM sub-component as an opportunity to demonstrate with other sub-components, integrated strategies to climate change adaptation at the local level.

**Recommendation 8:** coordinate the project M&E system with the knowledge and learning activities under Component 4 to identify the relevant lessons from the site demonstration and experiences, and to assess the specific knowledge development and socioeconomic benefits that are being generated by the adaptation practices. The adaptation learning process should provide case examples of effective climate-resilient agricultural practices in Lao PDR.

### ***Exit Strategy***

**Recommendation 9:** concentrate the project exit strategy on mainstreaming the Climate Change Information System and the CCTAMs into the regular government programs and services, and on demonstrating and documenting the benefits of investing in climate resilient agriculture. The strategy should explicitly aim for sustaining specific outputs that are critical to maintaining momentum for adaptation in the agricultural sector.

**Recommendation 10:** prepare a management plan for the proposed Climate Change Information System (Component 1) in consultation with senior government officials, which can provide a national basis for establishing commitments, procedures and financing for ongoing use of the system. The plan could be developed as part of a larger climate early warning system in Lao PDR and with partners that have a direct interest in operation of the system. The information system design, management and financing could be discussed at the 2014 international conference to draw upon international experiences.

**Recommendation 11:** initiate management agreements and arrangements for community ponds at schools to establish and clarify roles and responsibilities to fully utilize and maintain the sites (Component 3). The project needs to take the necessary action to ensure the community-based demonstration sites are effectively maintained.

**Recommendation 12:** as part of the exit strategy and integration with MAF operations, appoint a senior technical coordinator from MAF to assist the PM, APM and STA and to assume responsibility for the exit strategy and sustainability of the project outputs during the final year. Accelerated phase-in and mentoring of MAF's direct involvement before project closure under guidance from the PM can assist in sustaining elements of the project within the ministry, particularly in regard to monitoring and management of the CCTAMs implementation.

### ***Project Management***

**Recommendation 13:** increase the level of engineering quality assurance for rehabilitation and construction of small-scale community irrigation systems and ensure that user group arrangements are established to provide for ongoing maintenance and management. Some of the sites may require additional screening and design approval of water management infrastructure especially where previous design or operation failures have occurred.

**Recommendation 14:** increase monitoring and oversight of RP activities and outputs. Ensure the outputs (climate smart planning procedures, CCTAMs, etc.) are fully institutionalized in the government systems and are providing useful support for climate change adaptation. The follow-up government mainstreaming of RP outputs is a key result that requires special attention by the PSU.

### ***UNDP/GEF Processes***

**Recommendation 15:** enhance the inception phase procedures and guidelines for GEF and LDCF projects to ensure that well-defined implementation strategies are established based on effective logic models set out in the approved project design. Drawing upon international experiences, the current requirements for inception planning and reports need to be strengthened by UNDP/GEF to provide assistance for the critical start-up stage of GEF and LDCF projects. Inception tests are needed to guide the results-based approach to project implementation and to clarify the project concept and delivery modalities for the implementing partners and stakeholders prior to project commencement.

Annex 10, prepared at the request of UNDP Lao, provides a brief comment on lessons learned to date from the project for the design of future projects.

## **Annexes for Mid Term Evaluation**

1. Terms of Reference
2. Evaluation Criteria
3. UNDP/GEF Rating Scale
4. Interview Guide
5. List of Outputs and Factors affecting Progress
6. Target Villages Site Activity Information from MTE Field Visits
7. IRAS Project Risks Updated
8. List of Contacts and Itinerary
9. References
10. Key Lessons from IRAS for Future UNDP/GEF Projects

## **Annex 1: IRAS Mid Term Evaluation Terms of Reference**

### **Project design:**

- Evaluate the problem addressed by the project and the underlying assumptions. Evaluate the effect of any incorrect assumptions made by the project. Identify new assumptions;
- Evaluate the relevance of the project strategy (and theory of change) and whether it provides the most effective route towards expected/intended results;
- Evaluate how the project addresses country priorities;
- Evaluate the baseline data included in the project results framework and suggest revisions as necessary.

### **Progress:**

- Evaluate the outputs and progress toward outcomes achieved so far and the contribution to attaining the overall objective of the project;
- Examine if progress so far has led to, or could in the future catalyze, beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis;
- Suggest measures to improve the project's development impact, including gender equality and women's empowerment;
- Examine whether progress so far has led to, or could in the future lead to, potentially adverse environmental and/or social impacts/risks that could threaten the sustainability of the project outcomes;
- Are these risks being managed, mitigated, minimized or offset?
- Suggest mitigation measures as needed;
- Evaluate the extent to which the implementation of the project has been inclusive of relevant stakeholders and to which it has been able to create collaboration between different partners, and how the different needs of male and female stakeholders has been considered. Identify opportunities for stronger substantive partnerships;  
Adaptive management.

### **Work Planning:**

- Are work planning processes result-based? If not, suggest ways to re-orientate work planning to focus on results;
- Examine the use of the project document logical/results framework as a management tool and evaluate any changes made to it since project start;
- Ensure any revisions meet UNDP-GEF requirements and evaluate the impact of the revised approach on project management.

### **Finance and co-finance:**

- Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.
- Complete the co-financing monitoring table (see Annex 4);
- Evaluate the changes to fund allocations as a result of budget revisions and the appropriateness and relevance of such revisions;  
Monitoring Systems;
- Evaluate the monitoring tools currently being used;
- Do they provide the necessary information?
- Do they involve key partners?

- Do they use existing information? Are they efficient?
- Are they cost-effective? Are additional tools required?
- Ensure that the monitoring system, including performance indicators meet UNDP-GEF minimum requirements. Develop SMART indicators as necessary;
- Ensure broader development and gender aspects of the project are being monitored effectively;
- Develop and recommend SMART indicators, including sex-disaggregated indicators as necessary;
- Examine the financial management of the project monitoring and evaluation budget;
- Are sufficient resources being allocated to M&E? Are these resources being allocated effectively?

#### Risk Management:

- Validate whether the risks identified in the project document, PPRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date;
- If not, explain why. Give particular attention to critical risks;
- Describe any additional risks identified and suggest risk ratings and possible risk management strategies to be adopted.

#### Reporting:

- Evaluate how adaptive management changes have been reported by the project management, and shared with the Project Board;
- Evaluate how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

#### Management arrangements

- Evaluate overall effectiveness of project management as outlined in the project document. Have changes been made and are they effective? Are responsibilities and reporting lines clear?
- Is decision-making transparent and undertaken in a timely manner?
- Recommend areas for improvement;
- Evaluate the quality of execution of the project Implementing Partners and recommend areas for improvement;
- Evaluate the quality of support provided by UNDP and recommend areas for improvement.

In addition to the above parameter identified in the original TOR, as required by GEF guidelines, the evaluation will also look at sustainability specifically looking at the following parameters:

- Clarity of project design sustainability expectations and project exit strategy development and determined effectiveness of these strategies.
- Financial viability of adaptation measures that may support ongoing sustainability.
- Policy development measures that may support sustainability.
- Institutional capacity development measures that may support sustainability.

## Annex 2 – IRAS Mid Term Evaluation Criteria

Components	Criteria and questions	Data sources
<b>1. Project design</b> <i>The coherence and practicality of the project concept, results framework and implementation strategy, and whether based on experience to date, anything in the project design needs to be modified to achieve (or re-consider) the project results and strategy</i>	<ul style="list-style-type: none"> <li>▪ Project concept and approach or strategy still accepted as relevant and achievable by project stakeholders and in-line with country priorities</li> <li>▪ Whether the project strategy is the most effective route towards expected/intended results.</li> <li>▪ The extent to which the underlying assumptions remain valid or may require updating</li> <li>▪ Clarity and viability of the project logical framework, baseline data and targets, and any required modifications</li> <li>▪ Are any adjustments to project design or implementation strategy needed?</li> <li>▪ Outcomes and activities are effectively integrated to inform and build on one another where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Responses to interview questions</li> <li>▪ Reported progress under each outcome</li> <li>▪ Changes in country priorities or contributions</li> <li>▪ Stakeholder views of the project concept and approach</li> </ul>
<b>2. Progress and achievements</b> <i>Achievement and timeliness of the targeted outcomes and outputs per the Project Document and Annual Workplans, including cross-cutting results related to development, gender and environmental sustainability.</i>	<ul style="list-style-type: none"> <li>▪ Quantitative and qualitative achievements in terms of output and outcome targets as defined in the Project Document</li> <li>▪ Current and projected impacts on development and poverty reduction and effectiveness of the implementation strategy</li> <li>▪ Current and projected impacts on gender equality and women's empowerment and effectiveness of the implementation strategy</li> <li>▪ Current and projected impacts on environmental sustainability and effectiveness of environmental management</li> <li>▪ Progress relative to the planned project schedules</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reported progress per the indicators in the ProDoc</li> <li>▪ AWP activity completion rates</li> <li>▪ Interviews with selected beneficiaries</li> <li>▪ Disaggregated gender data on project activities</li> <li>▪ Analysis of environmental effects</li> </ul>
<b>Outcome 1 - Knowledge base on Climate Change impacts in Lao PDR on agricultural production, food security and vulnerability, and local coping mechanisms strengthened.</b>	<ul style="list-style-type: none"> <li>▪ <i>Cover:</i> Number and type of stakeholders served by expanded climate and vulnerability information and knowledge base related to agriculture and food security</li> <li>▪ <i>Impact:</i> Numbers of national and provincial level stakeholders using improved climate and vulnerability information in formulation of climate resilient policies and plans.</li> <li>▪ Integration with other relevant elements of the project where appropriate.</li> <li>▪ <i>Sustainability:</i> Resources available to maintain knowledge base after end of the project</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project monitoring data</li> <li>▪ Responses to interviews on achievements</li> <li>▪ Review of results framework and indicators</li> </ul>
<b>Outcome 2 - Capacities of sectoral planners and agricultural producers strengthened to</b>	<ul style="list-style-type: none"> <li>▪ <i>Cover:</i> Number of targeted institutions (agriculture, water management, food security, early warning, poverty alleviation, etc) with increased capacity to reduce risks of and respond</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project monitoring data</li> <li>▪ Post-training survey data</li> </ul>



understand and address climate change – related risks and opportunities for local food production and socio-economic conditions.	<p>to climate variability.</p> <ul style="list-style-type: none"> <li>▪ <i>Impact</i>: Number of targeted agricultural officers, extension workers, farmer cooperatives and TSC (Technical Service Center) members in target districts have an advanced understanding of key climate change risk and impacts on agricultural production and socio-economic conditions.</li> <li>▪ Integration with other relevant elements of the project where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Responses to interviews on achievements</li> <li>▪ Review of results framework and indicators</li> </ul>
Outcome 3 - Community-based adaptive agricultural practices and off-farm opportunities demonstrated and promoted within suitable agro-ecological systems	<ul style="list-style-type: none"> <li>▪ <i>Cover</i>: Number and type of climate risk-reducing farmer level practices identified and trialed to support adaptation of livelihoods and/or resource management.</li> <li>▪ <i>Cover</i>: % of targeted farming households aware of predicted adverse impacts of climate change and implementing new adaptive practices for agro-ecosystem and landscape management.</li> <li>▪ <i>Impact</i>: Improvement in farmer yields and water availability due to adaptation measures trialed in more than 50% of targeted communities.</li> <li>▪ Integration with other relevant elements of the project where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project monitoring data</li> <li>▪ Site observations</li> <li>▪ Responses to interviews on achievements</li> <li>▪ Review of results framework and indicators</li> </ul>
Outcome 4 - Adaptation Monitoring and Learning as a long-term process	<ul style="list-style-type: none"> <li>• <i>Replicability</i>: Number of ‘lessons learned’ codified in a specific KM facility such as the Adaptation Knowledge Platform for South East Asia or the global Adaptation Learning Mechanism</li> <li>▪ <i>Replicability</i>: Number and type of relevant networks or communities through which lessons learned are disseminated to enable replication.</li> <li>▪ <i>Impact</i>: Assessment of the quality and applicability of the knowledge management products</li> <li>▪ Integration with other relevant elements of the project where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project monitoring data</li> <li>▪ Responses to interviews on achievements</li> <li>▪ Review of knowledge management docs</li> <li>▪ Review of results framework and indicators</li> </ul>
<b>3. Work planning</b> <i>The effectiveness and inclusiveness of the annual work plan preparation and the consistency with the project document and results framework</i>	<ul style="list-style-type: none"> <li>▪ Consistency in Annual Work Plan implementation in relation to Project Document; extent of deviations required</li> <li>▪ Extent of stakeholder and beneficiary participation in AWP preparation, recognizing involvement of 20+ agencies</li> <li>▪ Are work planning processes result-based? If not, suggest ways to re-orientate work planning to focus on results</li> <li>▪ Annual achievements relative to planned targets and reasons for any delays</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review of activities in relation to ProDoc</li> <li>▪ Responses to interviews on AWP preparation and implementation</li> </ul>
<b>4. Finance/cofinance</b> <i>Financing provided relative to the Project Document, expenditures relative to budgets, perceived effectiveness and adequacy of the budget allocations</i>	<ul style="list-style-type: none"> <li>▪ Annual expenditures in relation to annual budgets</li> <li>▪ Outputs achieved relative to costs; perceptions of value for money</li> <li>▪ Proportion of costs for project management</li> <li>▪ Co-financing contributions to date including value</li> </ul>	<ul style="list-style-type: none"> <li>▪ Financial data provided by project team</li> <li>▪ Tabulation of co-financing contributions</li> <li>▪ Analysis of costs</li> </ul>

for capacity development, field activities, management, M&E, and efficiency in financial disbursements and procedures.	<p>of contributions in kind</p> <ul style="list-style-type: none"> <li>▪ Efficiency associated with disbursements and related financial management procedures that can affect project delivery</li> <li>▪ Additional observations that may have been noted in annual audits affecting project performance</li> </ul>	<p>relative to outputs</p> <ul style="list-style-type: none"> <li>▪ Review of annual audit reports</li> </ul>
<b>5. Project management</b> <i>The clarity of implementation duties and reporting relationships, coordination and communication quality between implementing organisations and levels, project management structures' effectiveness and responsiveness (adaptive management'), and any delays related to management systems.</i>	<ul style="list-style-type: none"> <li>▪ Overall effectiveness of project management as outlined in the project document. Have changes been made and are they effective?</li> <li>▪ Effectiveness of the working relationships and coordination and communication between project implementing partners? Do they understand their roles and responsibilities in the project?</li> <li>▪ Pro-active involvement of management bodies. Do they meet regularly and is decision-making transparent and undertaken in a timely manner? Is adaptive management being applied - observable management responses to issues and needs?</li> <li>▪ The quality of outputs by Implementing Partners and recommend areas for improvement.</li> <li>▪ The quality of support provided by UNDP and recommend areas for improvement.</li> <li>▪ Does anything in the project delivery operational processes need to be changed to improve effectiveness or efficiency?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review of committee meeting notes</li> <li>▪ Responses to interviews</li> <li>▪ Actions taken to address issues</li> <li>▪ Participant satisfaction with communications</li> <li>▪ Level of effort and constraints on implementing partners</li> </ul>
<b>6. Monitoring and reporting</b> <i>The reliability and usability of the Project Indicators for monitoring and reporting against baseline conditions, the quality of the monitoring plan, and the effectiveness of the monitoring system and data quality.</i>	<ul style="list-style-type: none"> <li>▪ Effectiveness of field monitoring and oversight functions and usefulness of the monitoring data</li> <li>▪ Effectiveness of the indicators. Is the monitoring and reporting based on the project's Logical Framework indicators? Do they also capture cross-cutting objectives?</li> <li>▪ Monitoring of cross-cutting issues: are gender, development and environment objectives being monitored?</li> <li>▪ Are monitoring reports submitted in timely manner as required by UNDP/GEF, Partners and Government?</li> <li>▪ Appropriateness of structures and resources for monitoring. Are sufficient resources being allocated to M&amp;E and are they being allocated effectively and efficiently?</li> <li>▪ Extent to which lessons derived from the adaptive management process have been documented, shared with and internalized by partners.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review of monitoring reports and data</li> <li>▪ Responses to interviews on the monitoring functions and issues</li> <li>▪ Cross-cutting objectives monitoring data</li> <li>▪ Timing of monitoring reports</li> <li>▪ Reported adaptive management actions taken to address issues</li> </ul>
<b>7. Risk management</b> <i>The accuracy of the identified risks, any</i>	<ul style="list-style-type: none"> <li>▪ Validity and importance of the risks identified in the project document, PPRs and the ATLAS Risk Management Module and whether the risk ratings</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review of risk assessments</li> <li>▪ Activation of risk</li> </ul>

required changes in risk rating and any new risks that have emerged since project start-up.	<p>applied are appropriate and up to date.</p> <ul style="list-style-type: none"> <li>Any additional risks identified, risk ratings and possible risk management strategies.</li> <li>Is the UNDP risk management system being implemented as expected?</li> </ul>	<p>management actions</p> <ul style="list-style-type: none"> <li>Responses to interviews</li> </ul>
<p><b>8. Sustainability</b></p> <p>The conditions necessary for project-related benefits and results being sustained after the project.</p>	<ul style="list-style-type: none"> <li>Clarity of project design sustainability expectations and project exit strategy development and determined effectiveness of these strategies..</li> <li>Financial viability of adaptation measures that may support ongoing sustainability.</li> <li>Policy development measures that may support sustainability.</li> <li>Institutional capacity development measures that may support sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Review of project document</li> <li>Farmer uptake of measures</li> <li>Policies to sustain adaptation</li> <li>Institutions to sustain adaptation</li> </ul>

### Annex 3: UNDP/GEF Rating Scale

Highly Satisfactory (HS)	Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as 'good practice'.
Satisfactory (S)	Implementation of most components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of most components is not in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of none of the components is in substantial compliance with the original/formally revised plan.

Project sustainability will also be considered in light of the following rating scale:

- **Likely (L)**: negligible risks to sustainability, with key outcomes expected to continue into the foreseeable future.
- **Moderately Likely (ML)** : moderate risks, but expectations that at least some outcomes will be sustained
- **Moderately Unlikely (MU)**: substantial risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on.
- **Unlikely (U)**: severe risk that project outcomes as well as key outputs will not be sustained.
- **Highly Unlikely (HU)**: expectation that **few** if any outputs or activities will continue after project closure.
- **Not Applicable (N/A)**
- **Unable to Assess (U/A)**

## **Annex 4 – Draft Interview Guide**

The following is a set of key questions that will be used in a general manner to prompt and guide the evaluation discussions. It is a guide only and not a questionnaire. More specific questions may be added depending upon the interviews with project staff, implementing partners and beneficiaries.

### **Project Design**

1. Are you satisfied with the overall design and approach of the project? Are there any aspects of the Project Document, including assumptions, which need to be corrected or clarified?
2. What are the Major Challenges you have faced so far in implementing the project? Can they be addressed by adjusting the project implementation strategy?
3. Is the Results Framework still relevant? Have there been any difficulties in applying the Results Indicators and Measuring Progress? How is capacity development being measured?
4. What are the major Project Risks that could affect achievement of expected results? How can they be reduced or managed?
5. How would you describe the strategy for promoting Gender Equality in the project and the means of addressing differentiated impacts of climate change on women?

### **Project Implementation Modalities**

6. Have the Project Organization and Structures been effective and efficient? Would you change anything in the current arrangement given the experience to date?
7. How are stakeholders involved in preparation of the Annual Work Plans? How are AWP's synchronized with the regular work programs of government agencies and partners?
8. Has the Project Implementation Process been effective and efficient in terms of how the activities have been delivered in the field? How well do the coordination mechanisms work? How well do the different project components build on one another?
9. Have there been any planned activities that have been difficult to complete according to the AWP and schedule? Have any delays affected progress toward expected results?
10. Have the financial, disbursement and contracting processes operated as planned?

## **Project Management**

11. Has the Project Board been useful in providing strategic direction? Is there a specific example of their direction?
12. Has the Management Team (PSU and Project Task Force) been effective in providing operational guidance to the project? Has it been capable of addressing key issues, concerns or questions that have arisen during implementation (adaptive management)?
13. Have any major project management or supervision issues affected the project results or created any uncertainties or tensions?
14. Has the project monitoring and reporting provided the necessary information to assess progress in meeting project objectives and targets?

## **Project Results**

15. Outcome 1 - How is the proposed national database and land use planning system being adopted and used at the national, district and local levels? What factors have facilitated or constrained progress?
16. Outcome 2 – How has the training specifically assisted you and your organization in addressing climate change risks? Has the training had any effect on how climate change adaptation is addressed by your organization or programs?
17. Outcome 3 – What quantitative data are available to demonstrate the effects of climate resilient cropping schemes in drought and flood prone areas? How have average crop yields, incomes and household food security status changed across the demonstration sites, and what are the key interventions associated with such results?
18. Outcome 3 - What improvements to the Climate Change Training and Adaptation Modules (CCTAM) could be considered based on the experiences to date? How are the CCTAM plans integrated with ongoing extension programs?
19. Outcome 4 – How will fact-based Lessons Learned be extracted from the monitoring information and project experience, and what is the most effective way of dissemination that will assist replication and scaling-up?
20. How sustainable are the knowledge management, capacity development and demonstration results of the project? What policy, institutional and financial factors will influence the potential to sustain the project effects, and how can these sustainability attributes be enhanced in the final phase of the project?

## Annex 5 – List of Outputs and Factors affecting Progress (prepared by IRAS project team)

<i>List of Outputs</i>	<i>Output targets (incl. locations)</i>	<i>Outputs achieved to date</i>	<i>Key factors affecting progress</i>
<b>Outcome 1 Knowledge base and coping mechanisms strengthened</b>			
1.1 Existing climate hazard and vulnerability information for Lao PDR compiled and integrated into an agriculture and climate risk information system	<ul style="list-style-type: none"> <li>1 Information system and network, (Knowledge Base) available online through the NAFRI website (Vientiane, with global access)</li> </ul>	<p>11 quarterly / PTF meetings, 3 inception workshops, 2 project annual review meetings, 2 board meetings, 5 local implementation platform (LIP-committee) meetings related to CC and agriculture were organized in different project locations: VTE, XYR and SVK with agencies like NAFRI, IRAS, UNDP, DLPD, DAEC, DNDMCC, NDMO, RCs (agriculture, fishery, livestock, fruit trees), PAFOs, DAFOs, DMCs, Division of Natural Resources and Environment and Women's Union. Digital information related to climate hazards in Lao PDR, as documents and reports produced by the project, can be accessed through websites: <a href="http://www.nafri.org.la/iras/">www.nafri.org.la/iras/</a>; <a href="http://undp-alm.org/projects/ldcf1-lao-pdr">http://undp-alm.org/projects/ldcf1-lao-pdr</a> and the website of the UNDP country office.</p>	<p>✓ Website and structure for information management existing          ✓ Good response to website so far          × Limited financial resources available at NAFRI          × Maintaining regular flow and update of information between stakeholders          × No consistent exchange of information between English / Lao and vice versa</p>
1.2 Scenarios for agricultural production in Lao PDR assessed on the basis of local expertise, regional and global Climate Change models	<ul style="list-style-type: none"> <li>12 Layers of CCA information (or maps) through existing GIS (MAF/NAFRI Vientiane)</li> <li>1 Simplified model for estimating water balance in a watershed (NAFRI Vientiane)</li> <li>2 Scaled-down scenarios for XBY and</li> </ul>	<p>Works on down-scaling of climate scenarios (in collaboration with third parties) and assessing the present situation on scenario development in Lao PDR are ongoing. On the way are two district maps (Outhumphone and Paklay) aiming to forecast local development options for 2040 and 2070 with focus on land use, availability of water, potential</p>	<p>✓ GIS facilities existing with good technical background / history          × Technical and analytical capacity of GIS tool for planning purpose is under-utilized          × Lack of official data, or difficult access to it          × Shifting understating of a “scenario” from a high-tech perspective to lower-tech options</p>

	SVK regions (NAFRI Vientiane)	flood and drought and erosion areas.	
1.3. Agricultural land-use planning in flood- and drought-prone areas in three target sites in 3 provinces analyzed and alternative land use plans developed based on climate-risk scenarios and long-term warning indicators.	<ul style="list-style-type: none"> <li>6 Sample district or village land use plans with CCA parameters (DPLD Vientiane, provincial offices in XBY and SVK)</li> </ul>	<p>Completed inception workshops on land allocation and dissemination for XYR and SVK.</p> <p>Completed technical training on land planning for related staff on provincial and district level of XYR and SVK.</p> <p>Completed 9 village land use maps (Nakork, Nongbouaphinong, Kang, Vangthum, Pangkha, Pangkho, Kengsao, Meuang Pa, sivilay) related to CCA for Paklay and Phieng districts, XYR (all works led by DLPD, MONRE.)</p>	<p>✓ Very professional team / Responsible Party producing good quality planning documents</p> <p>× Vertical integration of CCA oriented land-use planning into the DLPD / MONRE structure, meaning formal replication into the official planning process</p>
1.4. Comprehensive national long-term information system for flood and drought-related hazards and vulnerabilities, and the effects on agriculture established, managed and updated by NAFRI.	<ul style="list-style-type: none"> <li>IT Hardware, network, personnel and resources for the information system available for management by NAFRI (Vientiane) and linked to Output 1.1</li> </ul>	<p>Information system was discussed in several meetings with NAFRI IT and responsible parties: NDMO, DLPD, DAEC, DNDMCC and NAFRI research centers.</p> <p>Project database was designed and drafted, including XYR and SVK Hardware and technical infrastructure for the information system is available at NAFRI.</p>	<p>✓ Options for increasing NAFRI CCA profile in the national and international arena are discussed</p> <p>× Limited funding by GoL for long-term operation and maintenance</p>
<b>Outcome 2 Capacities strengthened</b>			
2.1 Planners and technical staff within MAF, WREA, MPI, LMA, target PAFOs and DAFOS, and other relevant GoL agencies trained to understand Climate Change risks for agricultural production and review policy and planning options for enhanced food security	<ul style="list-style-type: none"> <li>1 CCA Training Programme as result of a TNA (national and sub-national level)</li> <li>8 Reviews of relevant policies, strategies, guidelines for CCA (national level)</li> </ul>	<p>Complete TNA was done by an international consultant in 2012.</p> <p>Training modules related to CCA and agriculture developed by national consultants.</p> <p>Training included capacity building on CCA planning, community based CCA capacity building, gender and climate change adaptation, organized for farmers and the local government</p>	<p>✓ 'Lessons learned' discussions show that understanding of climate change relevance for the agriculture sector has increased beyond the chronological flood and drought experience</p> <p>✓ Inclusion of CCA aspects in evolving extension policy, land use planning, land policy, agriculture law and strategy</p>



		staff.	<ul style="list-style-type: none"> <li>× One-sided interpretation of the TOR by the international specialist handicapped the TNA mission</li> <li>× Conceptualization and depth of the programmatic approach has to be improved</li> <li>× Monitoring and systematic analyses of the training and capacity building measures has to be improved</li> </ul>
2.2. Climate resilient land-use planning principles developed and integrated into Lao PDR's poverty reduction and agricultural policies & action plans based on outcomes 1 and 3.	<ul style="list-style-type: none"> <li>• Formal integration of CCA awareness in the GoL's PLUP process (national level, probably country-wide application)</li> <li>• Reviews of land and agriculture policies and recommendations for GoL agencies (national level)</li> </ul>	<p>These strategies, policies and laws related to CC and land use were reviewed: 1. draft agriculture law, 2. draft national land policy, 3. draft agriculture development sector strategy 2010-2020, 4. draft upland development 5. strategy for agriculture and rural development 2015-2020.</p> <p>Findings were shared with national GoL departments working on these documents; including formal consultation workshops.</p>	<ul style="list-style-type: none"> <li>✓ Space for good discussions if interaction is less formalized</li> <li>× Land use planning divided between different departments and ministries</li> <li>× Land matters are often very sensitive issues</li> <li>× Potential for conflict of interest with overall economic development goals</li> </ul>
2.3. Agricultural officers, extension workers, farmer cooperatives and TSC (Technical Service Center) members in target districts trained in climate change impacts on agricultural production and socio-economic conditions, and potential community-based adaptation options	<ul style="list-style-type: none"> <li>• Development of 6 Extension packages (CCTAMs) for CCA within the GoL's extension service (national and sub-national level)</li> <li>• ToT programme for 6 Extension Packages (national and sub-national level)</li> <li>• 1 Guide for management of farmer organizations towards CCA (national and sub-national level)</li> </ul>	<p>Complete 4 CCTAMs for crops/agro-forestry, small livestock, fisheries/aquaculture, fruit/vegetables (works led by DAEC). Information workshops on background of CC were organized for extension-related personnel on provincial and district level. Videos, posters, brochures, booklets, banners with information on CC and agriculture were produced by IRAS and DNDMCC.</p> <p>A detailed analysis of legal and organizational situation of FOs in the</p>	<ul style="list-style-type: none"> <li>✓ High demand by local farmers and many inquiries by other projects and organizations</li> <li>× The materials for the CCTAM concept were substantially delayed in the design mission of the international extension specialist (reports contain good material for extension)</li> <li>× Lack of qualified local agricultural extension specialists</li> <li>× Highly depending on materials and inputs available in local language</li> <li>× Good reports but weak local</li> </ul>

		country was undertaken, and a wide range of recommendations for management of FOs towards climate change adaptation was published. A follow-up work shop with DVRG (german organization of cooperatives) ( <a href="http://www.dgrv.de/en/home">http://www.dgrv.de/en/home</a> ) is scheduled for December 2013.	counterpart to international mission “strengthening of farmer organizations for CCA”
2.4. District Disaster Management Committees (DDMC) in target districts trained in climate risk assessment and potential community-based risk reduction strategies, including periodical ground practice with communities	<ul style="list-style-type: none"> <li>• 1 TNA for DRM personnel in the target areas (national and sub-national level)</li> <li>• 1 Guide for DRM on district or community level (national and sub-national level)</li> <li>• Annual ground practice with communities on-site / cross-visits(in target districts and villages)</li> </ul>	<p>Inception workshops on natural disaster risk were organized for local authorities in SVK and XYR.</p> <p>Capacity assessments on disaster management of provincial and district disaster management committees were done in SVK and XYR.</p> <p>TOT on disaster risk management planning in provincial and district level of target areas was organized. A manual on disaster management for ground practice with communities is presently developed by NDMO. An exchange visit to Vietnam is in preparation.</p> <p>In the components elements are in place that – when combined – fall into the definition of helping a community make risk-based choices to address vulnerabilities, mitigate hazards and prepare for response to and recovery from hazard events (as far as it relates to agricultural production/land management).</p>	<p>✓ Highly experienced staff by RP (NDMO) and institutional presence on provincial and district level</p> <p>× Weak formal reporting and late presentation of tangible outputs, slow progress</p> <p>× Progress eventually hampered by unclear or overlapping structure / mandate between DNDMCC and NDMO</p>
<b>Outcome 3 Community-based agricultural practice and off-farm opportunities demonstrated</b>			
3.1. Resilient elements in existing	<ul style="list-style-type: none"> <li>• Analyses of existing farming systems</li> </ul>	Basic analysis and mapping of agro-	× Progress delayed due to severe

<p>farming systems identified and strengthened as a basis both for wider replication of successful practices and for the introduction of additional adaptation measures using these existing coping mechanisms as entry points.</p>	<p>(at NAFRI Vientiane, using data from target areas)</p> <ul style="list-style-type: none"> <li>• Agro-ecological assessments undertaken in target districts (at NAFRI Vientiane after PRA in target areas)</li> <li>• Linkage to national bio-diversity activities established (through NAFRI Vientiane)</li> </ul>	<p>ecological conditions in the target districts was undertaken, a PRA was implemented on community level. A detailed agro-ecological pilot project is presently prepared by a team composed of staff from different NAFRI research centers. To share information related to plant genetic resources the project is investigating how it could contribute to the NISM database managed by NAFRI (<a href="http://www.pgrfa.org/gpa/lao">http://www.pgrfa.org/gpa/lao</a>)</p>	<p>sickness of staff (local consultant) early 2013 – and is now followed up by NAFRI Agro-Ecology team</p>
<p>3.2. Supply chains for different climate-resilient crops, livestock, etc., and farming inputs analyzed and economic impacts/market barriers assessed</p>	<ul style="list-style-type: none"> <li>• 16 Farm or household budgets in the target areas (at NAFRI using data from GoL and from economic survey in target districts)</li> <li>• Supply chain analyses for main products with stakeholders (on provincial and district level)</li> <li>• Cost-benefit comparisons for project interventions (at NAFRI using local market data)</li> </ul>	<p>Initial assessments were done in 2012 through the international consultancy on strengthening of farmer organizations, together with the national agro-economist. A farmer household survey and economic analysis was conducted in 4 target districts with 400 respondents. General analysis was done. The project is waiting for deeper analyses and findings. A formula for simple cost-benefit comparison was introduced and a few project activities are checked against this formula.</p>	<p>× Full analyses of economic survey delayed due to termination of contract by national economist mid 2013 – now followed-up by a newly contracted local consultant and NAFRI research centre. Cooperation between international and national consultant handicapped by difficulties to overcome the language barrier.</p>
<p>3.3. Climate resilient cropping, livestock, fisheries, and forestry practices <b>introduced</b> across at least 1 flood-prone and 1 drought-prone area.</p>	<p><b>Extension</b>(phase 1: introduction) works for pilot activities on</p> <ul style="list-style-type: none"> <li>• Crops/Agriculture/Vegetable/Fruits</li> <li>• Fisheries/Aquaculture</li> <li>• Livestock</li> </ul>	<p>95 Concept Notes and work plans + budgets for climate resilient agricultural practice were developed. Implementation plan for selected final CCTAMs on province, district, kumban and village levels was discussed in workshops/meetings with related agencies.</p>	<p>✓ Close but slow collaboration with PAFOs and DAFOs ✓/× Tendency for orientation on existing priorities by PAFO/DAFO × Lack of local experience (both GoL and project staff) in project management and application of NIM rules</p>

	<ul style="list-style-type: none"> <li>Off-farm income generation</li> <li>“Safe-guarding Land” measures</li> </ul> <p>(on target district and village level)</p>	4 CCTAM drafts (fishery, livestock, vegetable and crop) completed and two more CCTAM (off-farm adaptation and safeguarding land) are in the development process.	
3.4. <b>Diversified</b> agriculture, livestock, fish, vegetables, NTF production, and alternative feasible off-farm activities <b>demonstrated</b> in target districts where farming communities are dependent on rain-fed crops.	<p><b>Extension</b>(phase 2: demonstration) of successful introductions / pilot activities on</p> <ul style="list-style-type: none"> <li>Farming System diversification</li> <li>Crops/Agriculture/Vegetable/Fruits</li> <li>Fisheries/Aquaculture</li> <li>Livestock</li> <li>Off-farm income generation</li> <li>“Safe-guarding Land” measures</li> </ul> <p>(on target district and village level)</p>	<p>Training on rice growing, duck, chicken, pig and fish raising for farmers were organized by PAFO and DAFO of the target provinces. 165 persons completed duck, chicken, pig, frog and fish raising demonstrations (240 heads of duck, 500 heads of chicken, 60 piglets, 4,700 small frogs and 23,600 fingerlings). Goats and wows raising demonstration in two target districts of SVK has started during Q3-Q4, 2013 with providing 12 cows for 6 HH, as per November 2013. 27000 kg of fertilizer and 8000 kg of improved rice seed (TDK1, TDK1/1, TDK8 and TDK11) were provided to farmers for a total of around 110 ha. 18 spray tanks for pest management, 10 seed droppers and 20 grass cleaners were also provided to target villages of SVK province.</p>	<p>✓ Close but slow collaboration with PAFOs and DAFOs</p> <p>× Fast-tracking of CCTAM extension process required</p> <p>× Fast-tracking of agro-ecological pilot activities required</p> <p>× Re-orientation in approach required to increase efficiency, e.g. the number of direct beneficiaries, and the quality of results</p>
3.5. Rainfall capture, storage and adaptive irrigation and/or drainage management, and small-scale flood protection measures introduced in target drought-prone districts where rainfall is becoming more variable.	<ul style="list-style-type: none"> <li>The physical measures (hard adaptation) under this output are directly supporting the technical agricultural activities (soft measures) introduced under Output 3.3 and – if successful - demonstrated under Output 3.4. They constitute a direct</li> </ul>	<p>Completed survey and design for improving an irrigation channel in SVK with a length of 1,950 m and beneficiaries of around 206 HH. Completed survey and design for weir construction at SVK with size of : W=10m and D=3m for Houay Toub; W=8m and D=2.5m for Houay Along</p>	<p>✓ Substantial community contributions</p> <p>× Budget available for these activities is too low to match the needs</p> <p>× So far, limited spill-over effect from international mission on water balance in watersheds, useful technical reports</p>

	<p>and visible intervention against negative climatic events. Final output figures are depending on feasibility and budget available.</p> <p>(on target district and village level)</p>	<p>and beneficiaries of around 257 HH. Completed 15 small reservoirs for water storage and agricultural production in XYR with a total water storage of 18,870 m<sup>3</sup> and beneficiaries of 72 HH. Completed 4 ponds for water storage, crop production and fish production in SVK and XYR with a storage potential of around 10,647 m<sup>3</sup>. Completed support to water harvesting facilities: 126 big/jumbo jars, 288 concrete tubes, 7 steel tanks for Kengpoun, Sakheuane Neua and Sakheuane Tai villages in SVK; Sivilay and Nakork villages in XYR with total beneficiaries of 214 HH. Completed a 17 villages' borehole survey in XYR with expected beneficiaries of 2,875 HH</p>	
<b>Outcome 4 Adaptation Monitoring and Learning as a long-term process</b>			
4.1. Project lessons captured in systematic monitoring, and periodically disseminated through, the Adaptation Learning Mechanism (ALM) and other suitable regionally based networks.	<ul style="list-style-type: none"> <li>1 Project monitoring system established and functioning.</li> <li>Several websites used for promotion of project and results.</li> <li>Information produced and disseminated as per existing knowledge management plan.</li> </ul> <p>(subnational, national, regional level)</p>	<p>Project lessons learned and information dissemination workshops for activities implemented (based on M&amp;E findings) were organized in 2 target provinces. M&amp;E system further unfolding with integration and participation of Responsible Parties. 205 documents were uploaded and 21 news articles posted through the project website</p>	<p>× Minimal capacity building of local M+E counterpart by international specialist</p> <p>× Changes in the ToR for the international video team (baseline video) and lack of experience by video team created a heavy work load (translation and reviewing works) and a significant delay in the video production</p> <p>× Interaction with website users is not possible yet, many downloads but no feedback</p>
4.2. Project knowledge shared with	<ul style="list-style-type: none"> <li>2 Regional conferences organized</li> </ul>	3 websites NAFRI/IRAS, UNDP CO and	× Project experiences, lessons

other countries in the Greater Mekong Sub-region facing climate-induced drought and flooding hazards to agricultural production through conferences and workshops at NAFRI	<p>through NAFRI</p> <ul style="list-style-type: none"> <li>1 Annual participation by senior official(s) in international conferences related to agriculture adaptation</li> </ul> <p>(national and regional level)</p>	<p>UNDP ALM provide access to information and share knowledge on CCA.</p> <p>Media products for CCA promotion include 2 videos (150 copies), 140 posters, 150 brochures, 100 booklets with key message for important events.</p> <p>IRAS and NAFRI staff attended regional conferences related CC and agriculture in Vietnam, Thailand and China.</p>	<p>learned and related knowledge sharing rely on activities on the ground – only 1 agriculture season for many activities</p> <p>× Lack of analytical capacity in districts and provinces</p>
4.3. Project knowledge incorporated into national flood and drought prevention and agricultural training programmes in Lao PDR	<ul style="list-style-type: none"> <li>1 Annual workshop on CCA mainstreaming and institutionalization of project outputs organized through NAFRI for GoL partners</li> </ul> <p>(national and sub-national level)</p>	<p>9 PTF and LIP meetings organized for sharing of knowledge</p> <p>30 workshops and conferences organized related to IRAS and CCA experiences made</p> <p>Discussions with DLPD, DAEC, NDMO, DNDMCC, NAFRI on institutionalization of outputs (exit strategy) was initiated through the board meeting in early October 2013.</p>	<p>×/ ✓ Project activities only since 2013 but bearing fruits / generate outputs that could be mainstreamed or institutionalized</p>

## ANNEX 6 - TARGET VILLAGES SITE ACTIVITY INFORMATION FROM MTE FIELD VISITS

No.	XYR Province		SVN Province	
	Phieng D.	Paklai D.	Champhone D.	Outhumphone D.
1	Sibounheuang V.	Nampa V.	Sakheunneua V.	Phondeua V.
2	Nongbouaphinong V.	Meuangpa V.	Sakheuntai V.*	Ahong V.
3	Na Somnhai V.*	Vang Thoum V.	Nonsithanh V.*	Nonnakouan V.
4	Na tane V.	Panngkho V.	Kengpoun V.*	Nongahong V.
5	Kang V.	Pang Kha V.	Phearha V.	Nondokmay V.
6	Na Kork V.*	Kengsao V.	Vangmao V.	Nonvilay V.*
7	Nam Hia V.*	Takdad V.	Lamtheane V.	Vangkean V.
8		Sivilay V.	Lambong V.	Nahuakhua V.
9		Pakleng V.		Phin neuua V.*
10		Huay Tang V.		Phintai V.*
			1,334 hhs, 7,253 persons (female 3,814)	1,606 hhs, 10,509 persons (female 5,223)

\* MTE site visit occurred in this village

## REPORTED AND MTE FIELD VISIT INFORMATION ON OUTCOME 3 ACTIVITIES

Location:   Xayabury   Province

3.1 type & no. of practices being demonstrated	3.2 % HHs implementing the products in the project areas	3.3 Impact on yield and water availability compared to project baseline	Farmer/beneficiary comments on acceptance, uptake and sustainability of the practices and field observations on the quality of outputs ( <i>low, medium, high</i> )
[1] Catfish demonstration plot	10 hhs in 2 V & 2 D (8 hhs in Kang V Phieng D & 2 hhs in Pakleng V Paklai D)	(At least 4-5 catfishes/kg after 5-6 months with mortality rate 10% as baseline). As evaluation results, mortality rate is 3-5% after 7 days but no clear yield information mentioned. 50% of villages like to continue breeding	<i>Field observations: some of the farm ponds appear to be under-utilized for fish farming; further extension support might useful to stimulate further interest</i>
[2] Rice demonstration plot	29hhs in 3 V 2 D (3 Ha each D) –rain-fed rice 49hhs in 6 V at both Districts (252 pp/122 fm)-irrigated rice	3 seed varieties: TDK1 sub1, TDK8 & TDK11, (yield increased from 4.75 t/ha to 5.5 t/ha) Introduce TDK 8 & TDK 11 for 13 ha in Phieng D & 8.58 ha in Paklai D ( not clear in yield information between 3.8t/ha or 4.2 t/ha but mentioned that yield better than before)	<i>Field observations: a doubling of yields has been reported by many farmers, but it is unclear how much of this may be due to higher than normal amounts of fertilizer that have been provided by the project (300kg per ha vs a typical pre-project farm practice of 0-150 kg per ha)</i>
[3] Frog demonstration pilot	8hhs in 1 D (Takdeth V Paklai D)	(At least 7-8 frogs/kg after 3 months with mortality rate 10% as baseline). As results, 4-5 frogs/kg, 65% of supporting families like to continue breeding	<i>Field observations: frog farming not observed at the field visit sites. Frog farming in Paklai has continued in half of the project households.</i>
[4] Water storage facilities	Support 72 Jumble jars to 25 hhs, 1 office & 3 schools in Paklai D 228 well ring tubes to 67 hhs, 3 to schools and 1 to temple in Nakork V, Phieng D.	Water consumption is insufficient (using 18lits/head/day in rural area), no clear baseline and evaluation result established from the M&E report e.g. time/days spent for water shortage, etc	<i>Field observations: The water storage containers are appreciated by the recipient households since they have reduced the water collection time and labour. It is not clear whether more cost-effective water supply alternatives (borehole hand pumps) could have been considered in the compact village housing situations where large numbers of containers were distributed.</i>
[5] Onion Demonstration Plot	13 hhs in Nongbouaphinong V, Phieng D	0.8 ha (3.5 t/ha as baseline and 3.63t/ha ( in shadow) & 3.7-3.8t/ha (outdoor) as results	Lesson learn: not necessary to introduce shadow technology outdoor has better yield ( from completion report) This kind of practice can be introduced together with storage/pond and integrated farming
[6] Reservoir Development	5 reservoirs for total 11.7 ha in 2 V at Phieng D (15 hhs, 53 pp/19 fm)	Rainfall capture for 1.1 ha fish pond, 2.5 ha livestock, and dry-season paddy incl. protected drought area 10.8 ha ( total cost 16,505\$), no impact evaluation found	<i>Field observations: farm reservoirs were visited in Na Somnhai village. There were 10 “weirs”- pond dams reconstructed by the project serving 4-5 households; two of ten dams required further work by contractors due to failure. (The degree of compaction done on the pond dams was discussed as a possible problem) The reasons for</i>



3.1 type & no. of practices being demonstrated	3.2 % HHs implementing the products in the project areas	3.3 Impact on yield and water availability compared to project baseline	Farmer/beneficiary comments on acceptance, uptake and sustainability of the practices and field observations on the quality of outputs ( <i>low, medium, high</i> )
			<i>neglect and collapse of the original dams were not explained. Irrigated land is being expanded by 6ha. Some of the direct beneficiaries are not low income farmers but large landholder families with private irrigation systems in need of repair</i>
[7] Water storage	Water storage for dry season and fishery in apparel (15 hhs in Vangthoum V, Paklai D	As activity target, to have storage capacity of 1,350 m3 and serve for 0.5 ha of agriculture	<u>Field observations:</u> <i>The Paklai staff noted the pressure to extend the project to other villages and the high expectations for ongoing support</i>
[8] Borehole Survey	17 villages (2,875 hhs, 10,426 pp) at Paklai D	Survey cost 39.5 million kip, all survey village sites have potential for construction with depth of 8-10m (5-8 sites in each village)	<u>Field observations:</u> <i>Costs for borehole construction were est at 5M kip per 10m depth well; perhaps \$5,000 total cost suggested for the 8 sites. Other options could include spring development.</i>

## REPORTED AND MTE FIELD VISIT INFORMATION ON OUTCOME 3 ACTIVITIES

Location:   Savanakhet   Province

3.1 type & no. of practices being demonstrated	3.2 No. of beneficiaries, village, District supported by project	3.3 Impact on yield and water availability compared to project baseline (based on M&E & completion reports)	Farmer/beneficiary comments on acceptance, uptake and sustainability of the practices and field observations on the quality of outputs
[1] rice demonstration plot (TDK1-1 for flood tolerance and TDK8 & TDK11 for drought tolerance)	10.5 ha for 21hhs in both Districts (rain-fed rice 2012) 14 ha for 28hhs in Champhone District (irrigated rice 2013) 24ha for 48hhs in both districts (rain-fed rice in 2013) Total up to date: 48.5ha for 97hhs for both districts, 225 hhs received training.	Average yield obtained 3.7 t/ha (no baseline data found in baseline report) Yield increase from 2.85 t/ha to 3.75t/ha (completion report)  Data collection not yet completed	<i>Field observations:</i> Many farmers are using the new variety including the farmers that have not received project support; e.g. project assisted 3 farmers in Kengpoun village and now 50 farmers use this variety. Fertilizer subsidy from the project at least twice the level normally used (150 kg/ha). Flood tolerance was reported as being extend from 7 days under normal flood to 21 days (although yield reduced with greater flooded days). Note TDK-1 sub1 also reportedly performs well for dry season crop. Seed multiplication exchange with other farmers (1 kg seed for 1 kg rice) seems to work well, with encouragement of extension officers
[2] Fish culture (project support fingerlings & feed) In drought zone	20hhs (20 ponds) in 5 villages in drought zone (Othomphone District) with 3 species introduced: carp, grass carps, & pentius orphaides	4-5 fish/kg according to district extension staff but no figure found in the competition report	<i>Field observations:</i> project provides fingerlings and fish feed for existing ponds; the ponds dry up during the dry season for 4-5 months. This lack of water is a key constraint. Discussed options whether better technique e.g. covering pond base by black plastic (lining) could be introduced to reduce infiltration and evaporation.
[3] Duck raising in flood and drought zones	Total 20 hhs in 2 districts (10 hhs in each District, 12 heads/hh-total 240 heads)	Result up to date 2,740 eggs & ducks 297 heads (project supported 240 heads)- according province M&E figure	<i>Field observations:</i> Some farmers have greatly expanded their flocks and incomes; e.g., started with 12, now 60 ducks for case of practicing family at Nonsithan village. The requirement for onward giving of offspring was reported as 'being encouraged'.
[4] chicken raising in flood and drought zones	Total 20 hhs in 2 districts (10 hhs in each District, 25 heads/hh-total 500 heads)	Result up to date, increase from 500 heads to 764 heads within 1 year(according to province M&E figure)	<i>Field observations:</i> selection criteria is more concerned with active famers and suitability of area e.g. availability of facility and pond, mostly with slightly better off families.
[5] Survey & Design of Irrigation System gate and weir irrigation system at Outhumphone District	(1) Huay Toom at Nonnakoun Village at Outhumphone District (2) Huay Ahong at Nong Ahong village at Outhumphone District (3) canal rehabilitation at 3 villages (Nonsithanh, Kengpoun & Phearka)	(1) head work/weir construction only (L:10,D:3) for command area 176.1 ha for 180hhs (\$114,836 according to report of PAFO/Irrigation Section) (2) (L:8m,D:2.5m) for benefited area 135 ha for 75hhs (\$134,721 according to report of PAFO/irrigation section) (3) Total 1,950m for 151.7 ha, 205hhs, total construction estimated cost of \$252,631	<i>Field observations:</i> canal rehabilitation is a major activity from the project; more field extension support seems to be needed; existing canals are overgrown and need annual maintenance; they are seeking concrete lined canals for existing and extended system. Probably very large demand for canal rehab support since irrigated rice farming is extensive. Provide support for construction of irrigation system and rehabilitation of canal will benefit to the larger group of people living in the area but if it is practical demonstration case for the project? Tube well with combination of micro irrigation can be a demonstration

3.1 type & no. of practices being demonstrated	3.2 No. of beneficiaries, village, District supported by project	3.3 Impact on yield and water availability compared to project baseline (based on M&E & completion reports)	Farmer/beneficiary comments on acceptance, uptake and sustainability of the practices and field observations on the quality of outputs
			<i>case in the area where electricity is available, or handpump may be an option as well.</i>
[6] Pond construction for community water storage	3 ponds: secondary school of Phin Tai village, primary school of Nonvilay village & TSC of DAFO Outhumphone District.	65hhs at Phintai primary school, 43hhs at Nonvilay village, 76hhs at TSC	<u>Field observations:</u> the role of pond construction in flood protection could be considered; cabinet staff indicated that all 8 villages are heavily flooded including 1500-7000 ha in the rainy season – what is the flood management strategy for these villages and links to agriculture sector? Students have planted various small plots with some advice from extension staff. The ponds have been fenced through community contribution. Rehabilitation of pond itself does not demonstrate enough the technology for the villagers as many similar ponds exist with only basic farming practices. Much more intensive adaption measures could be demonstrated than currently used. Probably adaption technique with low cost e.g. black plastic installation for infiltration protection and introducing appropriate cropping system according water availability could be a demonstration case for a group of villagers or students. Micro irrigation (in particular with drip system) would be one of technologies that can be demonstrated in drought prone areas.
[7] support rice cultivation tools	Dropped , spray & weeding tools: 10 units/each type in 10 villages for Outhumphone District	Provided since May 2013 , no monitoring report has been done yet	
[8] Cow raising	Nahoukhua village, Outhumphone District , 12 cows for 6hhs ( as credit system)	No monitoring data recorded	Giving long term income, but maybe not suitable for project due to issues of beneficiary selection, high cost adaptation measure, and indirect alignment with main project strategy
[9] water tank support	7 water tanks (3,000 lits/tank) for 7 villages (Outhumphone 3 villages, 4 vilalges for Champhone district)		<u>Field observations:</u> The water storage containers are appreciated by the recipient households since they have reduced the water collection time and labour. It is not clear whether more cost-effective water supply alternatives (borehole hand pumps) could have been considered in the compact village housing situations where large numbers of containers were distributed.
[10] Jumbo jar	433 Units for 433 hhs in 3 villages (Kaengpoun, Lambong, Nonsithan villages) & 3 units for primary school		<u>Field observations:</u> almost everyone in the target villages received a 'jumbo jar'; greatly appreciated by local people. Their alternative is collection of rain water using small jars. Nansithanth village – without jar they would have to spend 30 min going to another source. Storage

3.1 type & no. of practices being demonstrated	3.2 No. of beneficiaries, village, District supported by project	3.3 Impact on yield and water availability compared to project baseline (based on M&E & completion reports)	Farmer/beneficiary comments on acceptance, uptake and sustainability of the practices and field observations on the quality of outputs
			<i>generally good for up to 30 days.</i>
[11] Proposed reservoir re-construction & irrigation system	at Huay Kee stream/reservoir, Phin village, 20ha for 50hhs (consider for FY2014)	Proposed re-construction of large reservoir; concrete weir and gate failed about 3 yrs ago; the reservoir had operated for 30 years previously	<u>Field observations:</u> <i>This was a major failure of a large control structure 3 yrs ago, due to poor design; it is proposed for repair; the irrigation dev potential is high and farmers operated the system for many yrs previously. Compatible with funding criteria?</i>
[12] Proposed flood dyke at Sakhuentai village	Under consideration as a proposal		<u>Field observations:</u> <i>The proposal involves 1.2 km of dyke, est at \$40,000. The scale of benefits relative to costs are currently uncertain</i>

## Annex 7: IRAS Project Risks Updated

Type (risk category)	Description of the risk	Potential consequence	Probability Impact (high med., low)	Comment on potential mitigation actions
Environment	Weather events exceed the capabilities of the adaptation technologies	Flood and drought tolerant rice varieties and small scale infrastructure have limited ability to withstand extreme events in high risk zones	P=l I=h	Ensure the flood and drought risks are considered in the selection of adaptation measures. In some cases, early warning avoidance systems may be a better alternative than defensive adaptation mechanisms.
Operational	Policy advice may not lead to actual policy change or major government commitments to climate change adaptation in agriculture	The political and institutional barriers to adaptation initiatives may prevent short term action and resistance to budget re-allocation for CCA	P=h I=h	Present a stronger business case for investing in adaptation through Component 4 activities; identify the entry points for leveraging adaptation actions in district development plans and budgets.
Operational	Failure to adequately integrate the climate change planning into government programs	RPs will provide technical outputs such as training manuals and guidance on adaptation but the full testing and integration into the government programs may require more discussion and advocacy	P=h I=h	Monitoring and quality control of RP outputs and implementation activities in accordance with the LoAs and the project workplan.
Operational	Non-sustainability of the proposed climate change information system	The primary Component 1 knowledge base information system may reside within NAFRI for research purposes rather than serve in a decision support function for all government agencies	P=m I=h	Raise the profile and awareness of opportunities to use the information system to guide decision making associated with climate change risk management and obligations under UNFCCC.
Operational	Lack of capacity and preparedness to implement the CCTAMS	Staff training may not be sufficient and the capacity of the TSCs and the government extension services may not be adequate to effectively demonstrate CCTAM approaches. Weak delivery by extension staff, other implementers; innovations do not reach target groups	P=h I=h	Recognize the capacity development needs for CCTAMs and provide targeted support at selected sites.

Operational	Design or management failure of the rehabilitated small scale irrigation systems	The project may not fully resolve the root causes of earlier problems that led to the need for rehabilitation support. The local engineering and construction may be inadequate to maintain the integrity of the facilities	P=l I=h	Identify the causes of the irrigation systems problems and ensure the repair or re-building overcomes the cause. Provide adequate quality assure in the approval and monitoring of irrigation structures.
Organizational	Demonstration sites are not sufficiently organized to present best practices and reliable data on comparative results	The project sites may be informally used and not have enough technical and community support and leadership to showcase and assess the benefits of adopting climate-resilient methods	P=m I=h	Enhance supervision, quality assurance and reporting on the project's demonstration sites.
Operational	Community disinterest in using and maintaining the community farm ponds	The ponds that are installed at schools and temples require active volunteers and some funds to maintain the facilities. Obligation and commitments may decline after the project closes	P=m I=m	The responsibilities of the community organizations and government agencies should be established when the pond is developed. Agricultural production revenues from the site should be managed to provide for maintenance cost recovery. Contract uses of the available water by nearby farms could also be considered where circumstances allow.
Operational	Land ownership conflict in community irrigation systems is stimulated by the project activities	Local controversies over land ownership, registration and boundaries could be created when developing or rehabilitating community irrigation systems. Land ownership needs to be considered at the proposal stage.	P=l I=h	Provide the community time to resolve land issues and ensure participatory discussion of proposals and agreement between the beneficiary stakeholders.
Operational	Access to new crop variety seeds limits spread of the crop adaptation innovations	Exchange of new variety seeds depends upon willingness of farmers to participate and production of seed supply from government centers cannot meet the demand	P=l I=m	
Operational	Fertilizer inputs provided by the project will not continue by farmers after the project ends and may limit improved yields	The recommended fertilizer quantities provided by the project are much higher than what most farmers normally use. Farmers are likely to revert to earlier amounts based on affordability.	P=h I=l	The data on increased yields may be distorted by the additional fertilizer amounts. Controlled trials can correct for any distortions.

Organizational	Slow progress because of required institutional arrangements	Complex organizational arrangements between NAFRI and the other implementing partners. Outputs may not fully operational before end of project	P=m I=m	Increased communication, monitoring and trouble shooting can help to reduce delays and the timeliness of outputs.
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## Annex 8: List of Contacts and Itinerary

### Interviews held:

#### Oct 28, 2013

Meeting with IRAS project team at NAFRI for introductory meeting (mission work plan & program):

- |                            |                                     |
|----------------------------|-------------------------------------|
| 1. Mr. Khamphone Mounlamai | Project Manager (PM)                |
| 2. Mr. Manfred Staab       | Senior Technical Advisor (STA)      |
| 3. Mr. Vipaka Halsacda     | Assistance to Project Manager (APM) |

Meeting with UNDP team for introductory meeting (mission work plan & program):

- |                             |                                  |
|-----------------------------|----------------------------------|
| 1. Mrs. Ket (Skype meeting) | Regional Technical Advisor       |
| 2. Ms. Kyoko Yokosuka       | DRR                              |
| 3. Ms. Yvette Lizee         | Environment Unit Manager         |
| 4. Mr. Singha Ounniyom      | Climate Change Policy Specialist |

#### Oct 29, 2013

Meeting with IRAS team for detailed project information.

- |                                |  |
|--------------------------------|--|
| 1. Mr. Khamphone Mounlamai     | Project Manager (PM)                         |
| 2. Mr. Manfred Staab           | Senior Technical Advisor (STA)               |
| 3. Mr. Vipaka Halsacda         | Assistance to Project Manager (APM)          |
| 4. Dr. Somphone Inkhamse       | Senior M&E Officer (SME)                     |
| 5. Mrs. Dalavanh Phanthalangsy | Senior Finance Administration Officer (SFAO) |
| 6. Ms. Fengthong Lattana       | Media Publication Assistant (MPA)            |
| 7. Mr. Khamtue Vonglokh        | Climate Change Scenario Expenditure          |
| 8. Mr. Pasalath Khouns         | Technical Officer /NAFRI                     |

#### Oct 30, 2013

Department of National Disaster Management and Climate Change (DNDMCC/MoNRE):

- |                             |  |
|-----------------------------|--|
| 1. Mr. Syaphone Sengchanola | Head of Division                                 |
| 2. Mrs. Nuansy Thippaxay    | IRAS Project Coordinator/ Technical Officer      |
| 3. Mr. Vanhtome             | Assistance to IRAS Coordinator/Technical Officer |
| 4. Mr. Ammone               | Technical Officer                                |
| 5. Mr. Tiew                 | Technical Officer                                |

Department of Agriculture Extension and Cooperative (DAEC/MAF):

- |                             |   |
|-----------------------------|---|
| 1. Mr. Phengphan Phonsana   | Head of Curriculum Development Division |
| 2. Mr. Viengxay             | IRAS coordinator                        |
| 3. Mr. Khambang             | Technical Officer                       |
| 4. Mr. Mr. Xiewlor Chaimoua | Technical Officer                       |

NAFRI- meeting with Board member

- |                  |                   |
|------------------|-------------------|
| 1. Dr. Bounthong | Director of NAFRI |
|------------------|-------------------|

NAFRI- meeting with Agro-ecological team:

- |                               |                   |
|-------------------------------|-------------------|
| 1. Mr. Simone                 | Technical Officer |
| 2. Mr. Chanloun Boonithiphonh | Technical Officer |

#### Oct 31, 2013

Department of Land Planning and Development (DLPD/MoNRE):

- |                            |                               |
|----------------------------|-------------------------------|
| 1. Mr. Vinh Phaengdoug     | Deputy Director of DLPD       |
| 2. Mr. Yo Saysoulin        | IRAS coordinator/ Head of LPD |
| 3. Mr. Souliya Chanthongsy | Technical Officer             |
| 4. Mr. Xiewlor Chaimoua    | Technical Officer             |
| 5. Mr. Vixien Keopasert    | Technical Officer             |
| 6. Mr. Bounhok Maysoula    | Technical Officer             |



Department of Agriculture Extension and Cooperative (DAEC/MAF):

- |                           |   |
|---------------------------|---|
| 1. Mr. Phengphan Phonsana | Head of Curriculum Development Division |
| 2. Mr. Viengxay           | IRAS coordinator                        |
| 3. Mr. Khambang           | Technical Officer                       |
| 4. Mr. Xiewlor Chaimoua   | Technical                               |

Department of Social Welfare (NDMO)

- |                            |  |
|----------------------------|--|
| 1. Mr. Inthavong Luanglath | Deputy Head of DM office                   |
| 2. Mrs. Vilaykham Latsaart | IRAS Project Coordinator/Technical Officer |

NAFRI-meeting IT/Website Team:

- |                              |   |
|------------------------------|---|
| 1. Mr. Manoluck Bounsihalath | Deputy Head of Agriculture & Policy Research Center |
|------------------------------|---|

NAFRI- meeting with GIS team:

- |                  |  |
|------------------|--|
| 1. Mr. Phaythoon | Deputy Head of Survey and Agriculture Land Use Planning Center |
|------------------|--|

**Oct 31, 2013**

Meeting with LIP members of XYB province:

- |                               |                         |
|-------------------------------|-------------------------|
| 1. Mr. Suvath Maneevong       | Deputy Head of PAFO     |
| 2. Mr. Khanxay Vilayphone     | DAFO of Phieng District |
| 3. Mr. Sengpaphone Konemany   | FADO of Phieng District |
| 4. Mr. Vaikoun Vilaythong     | DAFO of Paklai District |
| 5. Mr. Thonhchit Khamphouvong | FADO of Paklai District |
| 6. Mr. Soulasak               | M&E of IRAS             |
| 7. Mrs. Vanphen Chanthalo     | Finance of IRAS         |
| 8. Mr. Vouti                  | TC coordinator          |

**Nov 1, 2013**

1. Met about 10 villagers at Na Kok village, mainly rice cultivation group
2. Visited rice demonstration plot at Na Kok village
3. Visited Ring tube/water harvesting facility at Temple
4. Met about 20 villagers at Na Somyai village
5. Visited small-scale reservoirs of Mr. Xieng ( vice headman) about 7 ha of benefit area
6. Visited small-scale reservoir of Mr. Kien (villager) about 6 ha of benefit area
7. Visited 2 TSCs

**Nov 4, 2013**

Meeting with LIP members of SVK province:

- |                               |  |
|-------------------------------|--|
| 1. Mr. SoukpadithaSouvanthong | Deputy Head of PAFO  |
| 2. Mr. PhadeeOliyavong        | Deputy Head of Provincial Planning and Investment Office (PPI) |
| 3. Mr. InpanSounthanousin     | PAFO   |
| 4. Mr. KamsengSorphabmeexay   | Head of Cultivation section                                    |
| 5. Mr. SisuvanhSouvanasan     | Head of office cabinet, Champhone District                     |
| 6. Mr. SaysamonePhiengvilay   | Deputy head of DPI, Champhone District                         |
| 7. Mr. OunkeoVongsakorn       | Head of office cabinet, OuthumphoneDistrict                    |
| 8. Mr. SouphonBounyalad       | Deputy head of DIP, Outhumphone District                       |
| 9. Mr. Souksamone             | Head of DAFO, Champhone District                               |
| 10. Mrs.Veomanee              | DAFO extension staff, Champhone District                       |
| 11. Mrs. Phuladsamee          | DAFO extension staff   |
| 12. Mr. Khamphu               | Head of DAFO, Outhumphone District                             |
| 13. Mr. Phouthone             | DAFO extension staff   |
| 14. Mrs. Bounxuay             | DAFO extension staff   |
| 15. Mrs. Bounthavy            | DAFO extension staff   |
| 16. Mrs. Phonesavanh          | IRAS PC/Deputy Head of Cultivation Section of PAFO             |
| 17. Mr. Sakpasith             | IRAS TC  |
| 18. Mr. Vinai                 | IRAS MERA  |

**Nov 5, 2013**

1. Visited school pond at Secondary School of Phintai village, Outhumphone District
2. Visited school pond at Primary School of Nonvilay village, Outhumphone District
3. Visited existing irrigation reservoir and about 5 farmers at Phin Nuea Village, Outhumphone District

**Nov 6, 2013**

1. Met vice governor and IRAS district coordinators at District Cabinet Office, Champhone District
2. Met about 30 farmers (rice and chicken) at temple of Kengpoun village, Champhone District
3. Visited existing irrigation canal that being proposed for rehabilitation, Kengpoun village, Champhone District
4. Met with farmers in 5 villages (rice and duck) at Nonsithan village, Champhone District
5. Visited chicken demonstration family at Sakheunnuea village, Champhone village
6. Visited about 5 villagers (rice) and proposed foold dyke at Sakheuntai village

Date	Time	Programme	Meet where/who	Group/individually	Remark/Contact Person
<b>Oct 21-24</b> (Mon-Thu)		Workplan Preparation	MTE consultants and IRAS team		Project data compiled by IRAS team
<b>Oct 25-27</b> (Fri-Sun)		Travel to VTE	Alan Ferguson		
<b>Oct 28</b> (Mon)	09:00-11:30	Meeting with IRAS team to finalize workplan & general information/expectation from project team	<b>NAFRI:</b> IRAS Team members	Group	020 55676766 (Mrs.Sengchanh)
	12:30-15:30	Meeting with UNDP team: - Draft inception report - Evaluation criteria - Expectation from project team	<b>UNDP:</b> Kyoko Yokosuka (DRR), Yvette (Head of Environment Unit), Singha (PO)	Group	
	16:00	Skype with Ket	MTE consultant		
<b>Oct 29</b> (Tue)	09:00-12:00	Individual Meeting with IRAS technical team members to review progress data	<b>NAFRI:</b> Mrs. Dalavanh (PDF) Dr. Somphone (SMEO) Mrs. Sengchanh (SFAO) Ms. Fengthong(MPA) Mr. Khamtue (scenario)	Individually	020 54968059 020 23666388 020 22233600
	13:00-16:00	Meeting with IRAS team	<b>NAFRI:</b> - Additional meeting/information required (if any) - Manfred (STA), Khamphone	Group	020 55800755 020 22200612

			(PM) & Vipaka (APM)		
<b>Oct 30</b> (Wed)	08:30-09:30	Department of National Disaster Management and Climate Change (DNDMCC)	<b>DNDMCC:</b> coordinator (Mrs.Nounsny)	Individually	020 22451177 (Mrs.Nouansy)
	10:30-11:30	Meeting with Department of Agriculture Extension and Cooperative (DEAC)	<b>DEAC:</b> DG and coordinator of DEAC (Mr.Viangxay)	Individually	020 55521454 (Mr.Viangxay)
	13:30-14:30	Meeting with Board Member	<b>NAFRI:</b> Dr. Bounthong	Individually	
	14:45-16:30	Meeting with Agro-ecology team and other research centres	<b>NAFRI:</b> Dr. Aloun/Mr.Simone (GIS)	Individually	020 76367636
<b>Oct 31</b> (Thu)	08:30-09:30	Meeting with Department of Land Planning and Development (DLPD)	<b>DLPD/MoNRE:</b> DG & Coordinator (Mr. Yo)	Individually	020 22201854 020 22202501 (Mr. Yo)
	10:00-11:30	Meeting with Department of Social Welfare (NDMO)	<b>NDMO:</b> coordinator of DNDMCC (Mrs. Vilaykham)	Individually	020 (Vilaykham)
	13:30-16:30	Meeting with IT/Website and GIS team	<b>NAFRI:</b> Mr. Manoluck (Head of information and technology ICT) & Mr. Phaythoon (Head of GIS sector) & team members		
<b>Nov 1-3</b> (Fri-Sun) 3 days incl. traveling	AM-PM	Field visit to Xayaboury Province	Technical coordinator Mr.Vouthi (XYBL) and their team		074 212084 020 22857755 (Vouthi) 020 22856922 (Sulasack)
<b>Nov 4-6</b> (Mon-Wed) 3 days incl. traveling	AM-PM	Field visit to Savannakhet Province	Technical coordinator (SVNK) Mr.Sakpasith and their team		041 252557 020(Sakpasith)
<b>Nov 7</b> (Thu)	AM-PM	Flight back to VTE; compilation of field note (MTE consultants)			
<b>Nov 8</b> (Fri)	AM	meeting with IRAS team	<b>NAFRI:</b> Khamphone, Manfred & Vipaka		
<b>Nov 9-10</b> (Sat-Sun)		compilation of field note & preparation of presentation (MTE consultants)			

<b>Nov 11</b> (Mon)	09:00-12:00	Debriefing on preliminary observations and findings	<b>UNDP</b> Project Stakeholders	All represents LIP and sub office invite	(debriefing note & presentation)
<b>Nov 12-21</b>		Drafting MTE report	MTE consultants	MTE team	Draft report delivered to IRAS
<b>Nov 22-27</b>		Review of draft report	UNDP and IRAS team members	5 working days for review	
<b>Nov 28-29</b>		Final report preparation			

#### Field visit to Xayabouly and Savanakheth provinces

Date	Time	Programme	Meet where / who	Group/ Individually	Remark/Contr act Person
<b>Nov 1</b> (Fri)	AM	Flight to LPB then cont travel to XYBL (2hrs)	Alan and Fongsamuth		Driver/TC pick the team at LPB Airport
	PM	Meeting with PAFO, PC, TC, & MERA IRAS of XYBL	<b>PAFO meeting room:</b> LIP Committee: PAFOs, DAFOs, PCs, TCs, DCs (both districts)	Group	074 212084 020 22857755 (Vouthi) 020 22856922 (Sulasack)
<b>Nov 2</b> (Sat)	AM-PM	Site visit at Phieng District (visiting of Paklai District is not necessary , too far) But TC from Paklai District accompanying to the field needed	site visit programme to be determined on Nov 1 with PC & TC team - Expecting visit of about 3 (covering all representative activities in both well & not well performance cases)  - Expecting to meet beneficiaries/farmers in each demonstration plot	Individually	
<b>Nov 3</b> (Sun)	AM	Site visit at Phieng District	Visiting 1 more village	Individually	
	PM	Travel to LPB & VTE (arriving VTE at 06:30)			
<b>Nov 4</b> (Mon)	05:00 - 07:00	Flight from VTE to SVNK & direct to IRAS Office	Alan and Fongsamuth		
	09:00 - 11:30	Meeting with PAFO, PC, TC, & MERA IRAS of SVNK	<b>PAFO meeting room:</b> LIP Committee: PAFOs, DAFOs, PCs, TCs, DCs (both districts)	Group	041 252557 020(Sakpasith )
	PM	Site visit programme Design & additional interview with PCs, TCs if required	<b>PAFO meeting room:</b>		
<b>Nov 5</b> (Tue)	AM-PM	Field visit to Champhone District	Meet DAFO officers, extension staffs & site visit in Ban Noldvilay,		

			NoldDokmai, Nahouakhoua, Phin		
<b>Nov 6</b> (Wed)	AM- PM	Field visit to Outhoumphone District	Meet DAFO officers, extension staffs & site visit in target villages		
<b>Nov 7</b> (Thu)	10:00 - 12:00	Flight back to VTE			Driver to take the MTE team to Airport

## **Annex 9: References**

1. Project document: Improving the Resilience of the Agriculture Sector in Lao PDR to Climate Change Impacts
2. Annual report and 3<sup>rd</sup> & 4<sup>th</sup> Quarterly Reports of 2011
3. Annual and 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> Quarterly Report of 2012
4. Annual and 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Quarterly Report of 2013
5. Annual and Quarterly work plan 2011, 2012 and 2013
6. Audit Reports 2011 and 2012
7. The GEF Monitoring and Evaluation Policy 2010
8. NIM Rules (Guideline for Responsible Parties (RPs) LOA/MOU , updated 2012
9. Inception Report, July 2011
10. M&E Manual for IRAS, October 2011
11. Activity Completion Reports for Xayaboury and Savanakheth Provinces
12. Letter of Agreement (DAEC 2012) and (DLPD, DNDMCC, and NDMO, 2013)
13. Minute of board meetings, July 2012 and January 2013
14. Annual Project Review (APR), 2013
15. Power Point Presentation of IRAS Team ( information, progress and Options)
16. Power Point Presentation of PCs of Xayabury and Savanakheth Provinces

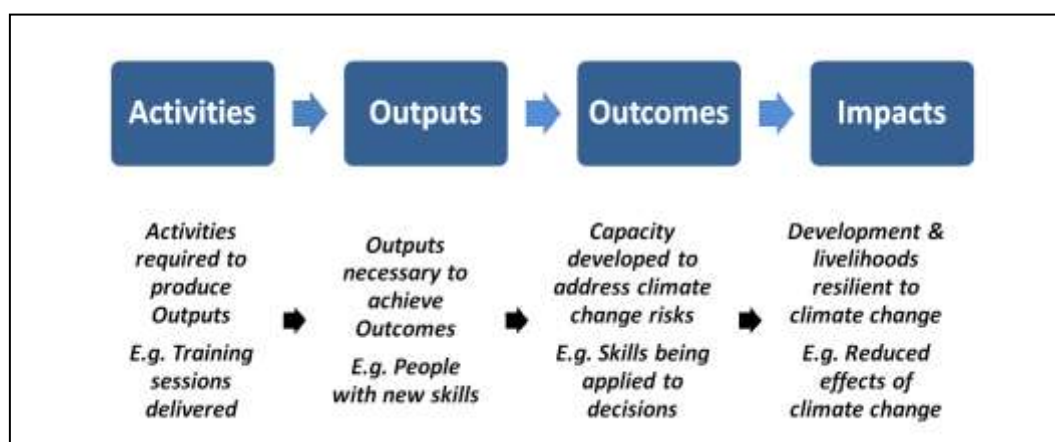
## Annex 10: Key Lessons from IRAS for Future UNDP/GEF Projects

These brief lessons were identified following a request from UNDP Lao. They highlight some of the problems associated project design and implementation.

### 1. Clarity of expected results and strategy for achievement

Many climate change adaptation projects promise to transform agricultural practices but usually end up with an eclectic set of outputs that have limited impact and sustainability. Activities rather than outcomes tend to drive the projects toward some aspirational end results. A lack of rigor in the project design is a key factor affecting subsequent performance.

The project concept carries a set of assumptions and hypotheses (a ‘theory of change’) that need to be scrutinized and assessed in terms of a) what can we realistically achieve in terms of measurable results within the time frame and budget, and b) what outputs and activities are necessary and sufficient to achieve these expected results. See the discussion in Section 3.1.1 of the report. The essential task is to ensure that a project *results chain* (see example below) is clearly defined and central to the stakeholders’ understanding of the project.



### 2. Inception refinement and validation of project logic model

The process and format for project initiation and operationalization at the inception stage is often treated as a proforma formality for allocation of participant roles and for celebration of the project launch. The process of examination of the logic model, the theory of change, and the results chain tends to be overwhelmed by the enthusiasm to get on with project activities and disbursements. More structure and focus on establishing a common approach and strategy for results-based implementation needs to be part of the inception stage.

A cartoon by J. Harris. Two men in suits are standing in front of a chalkboard. The man on the left, wearing glasses, is looking at the board. The man on the right is pointing at the board. The chalkboard contains the following text and formulas:

$$\begin{array}{l} \Delta \\ 2\sqrt{3} \sim 6.24 \\ 3K\frac{5}{56} \end{array}$$

THEN A MIRACLE OCCURS...

$$\begin{array}{l} R \cdot 0.06511 \\ \times \frac{ms}{ms} \cdot \frac{1.0}{R} \\ \hline \frac{1}{2} \cdot \frac{1}{R} \\ \hline 345 \end{array}$$

The signature "J. Harris" is at the bottom right of the drawing.

### 3. Scale and sequence of climate change assessment

#### 4. Indicators: tested measures of progress toward realistic end results



monitoring systems. Weak baseline data also constrains the monitoring and tracking of progress toward substantive change.

The proposed indicators need to be pre-tested to determine if they are meaningful and feasible in the context of the overall project design.

## **5. Commitment and capacity of implementing partners**

The 'Responsible Parties' implementation arrangement has the advantage of engaging a wide range of government partners in adaptation. But these sub-contractors are also arms length from the project management and may have less accountability and capacity support to deliver outputs that directly contribute to project outcomes. The commitments seem to be confined to the terms of their contracted deliverables that complement their ongoing programs, rather than the project objectives as a whole. To avoid operating in isolation, it appears that sub-contracted activities need to include direct links to other sub-components in order to make them an integral part of a project, and to define their roles in assisting not only production of outputs but also achievement of outcomes. Regular liaison and supervision of the letter of agreement implementation are necessary, along with targeted capacity support where required.

## **6. Under-estimation of quality assurance and capacity development requirements**

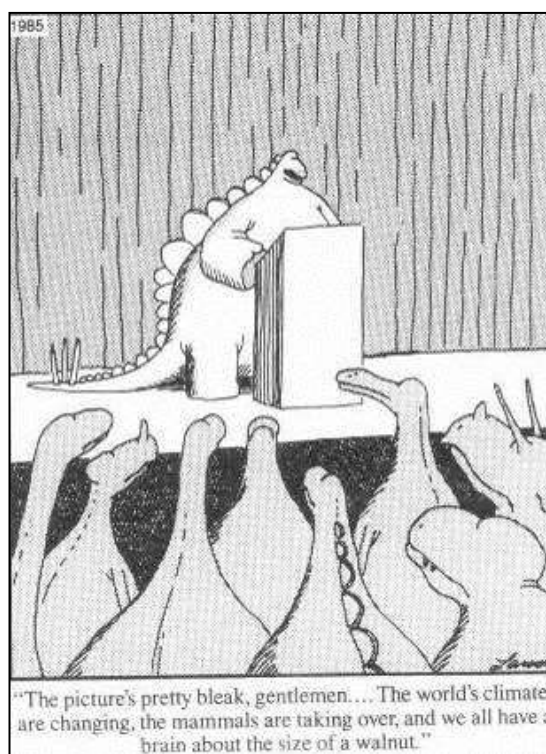
The government execution of the project at the field level presumes the necessary capacity and resources to effectively deliver the planned activities on the ground. In the case of IRAS and other GEF projects, supplementary technical assistance and logistical support are often needed, along with selective training for certain interventions. Quality assurance at the subnational level is usually weak where national execution of a project depends upon normal government resources and capacity, despite in-kind co-financing assumptions in the project design. Such constraints are often not recognized in the project design and NEX modality. The project field coordinators have an important role to organize, motivate, incentivize, administer, supplement and monitor implementation through the line agencies and local government. This critical role is under-recognized. The practical constraints on project delivery capacity, the controls over beneficiary selection and accepted standards for sustainable adaptation technologies need to be highlighted for special attention during implementation.

## **7. Adaptive management approach**

The model modality of 'learning by doing', monitoring feedback and adjustment, and adaptive response management is constrained by a reluctance to actively and critically

monitor performance of the interventions per explicit criteria and to adjust the strategy and results framework based on the evidence. Failures are never identified except where they trigger a crisis. Instead, the project monitoring is invariably pre-occupied with recording activity completion and ensuring positive reporting on planned results. Evaluator's brief observations on the quality of intervention performance at the field level are seldom reflected in the project monitoring reports.

Project M&E systems should be designed as internal participatory learning platforms; instead they seem to have largely become advertising vehicles for project success. The Adaptation Learning Mechanism itself serves as a repository for self-proclaimed models of successful adaptation. This is a long way from the adaptive environmental management approach. There is limited evidence-based rigor in the monitoring systems, and no attention to the counterfactual data to substantiate attribution. Internal bias is systemic and project promotion rather than learning dominates the reporting. Alternatives, such as expert panels, structured demonstration trials and randomized control trails could be usefully considered.



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## 8. Sustainability illusions

The primary sustainability strategy is usually based on hope of enhanced government agencies' program budgets and new funding to carry on with subsequent phases of the project. The IRAS sustainability strategy is framed around government decentralization programs that are expected to continue the project activities, and further funding proposals to carry on with the work. The financial drivers and financing mechanisms, institutional and community support structures, cultural practices innovations, and government development planning and budgeting systems mainstreaming need to be part of a targeted sustainability strategy that is integral to the project design and inception stage. Expectations of extensions to project funding should be forever excluded from the concept of sustainability of project achievements.