

ANNEX VI  
PROJECT COMPLETION NARRATIVE REPORT  
(March 2014 – February 2018)



Northern Uplands Promoting Climate Resilience (NU PCR)

Contract Number: DCI-ENV/2014/303-318



This project implemented by



*This publication has been produced with the assistance of the European Union. The contents of this publication are the sole responsibility of CARE and can in no way be taken to reflect the views of the European Union.*

- This report must be completed and signed by the Contact person.
- The information provided below must correspond to the financial information that appears in the financial report.
- Please complete the report using a typewriter or computer
- Please expand the paragraphs as necessary.
- **Please refer to the Special Conditions of your grant contract and send one copy of the report to each address mentioned.**
- The Contracting Authority will reject any incomplete or badly completed reports.
- The answer to all questions must cover the reporting period as specified in point 1.6.

## **1. Description**

---

- 1.1. Name of beneficiary of grant contract: CARE Denmark
- 1.2. Name and title of the Contact person: Mr. Flemming Gjedde Nielsen, Programme Coordinator, CARE Denmark
- 1.3. Name of partners in the Action: CCL, SAEDA
- 1.4. Title of the Action: Northern Uplands - Promoting Climate Resilience (NU-PCR)
- 1.5. Contract number: DCI-ENV/2014/303-318
- 1.6. Start date and end date of the reporting period: 12.3.2014 – 11.3.2018
- 1.7. Target country(ies) or region(s): Laos, Phongsaly, Gnot Ou, Samphan and Mai districts
- 1.8. Final beneficiaries &/or target groups<sup>1</sup> (if different) (including numbers of women and men): 78.000 men and women living in the three target districts (indirect); 1.500 farming households in 30 target villages (direct) and district government stakeholders
- 1.9. Country(ies) in which the activities take place (if different from 1.7): n.a.

---

<sup>1</sup> “Target groups” are the groups/entities who will be directly positively affected by the project at the Project Purpose level, and “final beneficiaries” are those who will benefit from the project in the long term at the level of the society or sector at large.

## **2. Assessment of implementation of Action activities**

---

### **2.1. Executive summary of the Action**

The objective of the Northern Uplands – Promoting Climate Resilience (NU-PCR) project is to support vulnerable households in remote areas in three districts in Phongsaly to better understand the current trends and changes in climate and adapt their agricultural livelihoods to these changes. The project is funded by the European Union and was jointly and successfully implemented by CARE, CCL and SAEDA, in close collaboration with local communities (in Mai, Samphan and Gnot Ou districts of the Phongsaly province), the Ministry of Natural Resources and Environment, the Ministry of Agriculture and Forestry and the Lao Women’s Union (among others).

The current report summarises the achievements accomplished during the four years of its implementation (2014-2018).

When the project started in 2014, there was still much confusion about what climate change means, how it affects the Northern Uplands of Lao PDR, and most importantly on how to promote climate resilience. As evidenced throughout this completion report, the project succeeded in responding to all these crucial knowledge gaps and in promoting required best practices.

First, it was important to better define what climate resilience means and how to monitor progress towards it. For that purpose a highly innovative and at the same time practical framework was defined, focusing on ten broader domains. These are (1) farmers’ long term planning, (2) Male/Female participation in public decision making, (3) disaster preparedness, (4) Male/Female access to agro-climate information services, (5) livelihood diversification, (6) Male/Female access and control over assets, (7) state of natural resources, (8) livelihood recovery rate, (9) division of labour and shared work load among women and men, and (10) Women agency. Although the project was not meant to work on all of these domains, and despite the relatively short-term duration to promote required changes in attitudes, mind-set and practices (besides improvement of the institutional framework), it accomplished significant and lasting achievements.

The greatest achievements (see resilience graphic on page 15) refer to improvement on women’s agency (not least through the establishment of VSLAs), farmers’ long term planning, division of labour through gender equitable shared workload, access to agro-climate information services and livelihood recovery rate. Interestingly, the project could not influence livelihood diversification. This is rooted in the fact, that livelihood of remote ethnic communities in the Northern Uplands of Lao PDR is already highly diversified. Further diversification may rather result economically risky (too much time and resources to be invested dispersively in large variety of farming options, at the cost of investment in value addition of existing livelihood priorities). Therefore, the support provided rather focused on the expansion and value addition to already existing practices (e.g. cultivation, processing and marketing of Cardamom, Tea, Honey, Galangal, Mushroom, Rice, Fish, etc.).

An impressive achievement worthwhile to highlight, refers to the promotion and impact of 13 livelihood options for climate change adaptation, proposed and supported in beneficiary villages (see A 2.2). Among these, particularly the Cardamom and Tea value chains development, significantly increased the annual income in poor upland communities villages, often reaching the one thousand Euros/year/household. By adding these individual household-level incomes, among all beneficiaries households of the current project, the total annual income proved to exceed the one million Euro benchmark. Derived savings and investments, can significantly contribute to the livelihood recovery rate, e.g. in case on natural hazards.

Given the wide-ranging information reported in the current completion report, it is difficult to adequately summarise the many highlights in a short executive summary. Therefore, in order to ease the reading of the narrative below, for each activity reported, a brief statement from the external evaluation, as well as summary of main outputs are provided at the beginning of the reporting section of each activity. In addition, an overview of achievements for each Expected Results (1-3) is presented in table form referring to respective indicators (as per project log-frame), after describing the specific activities implemented to achieve each result. The achievements in terms of Overall and Specific Objectives are reported in related section on pages 40-42.

**Finally yet importantly, the following are summary statements made in the external evaluation of the project:**

NU-PCR has implemented a wide variety of activities to increase the resilience of ethnic communities to climate change and climate variability. The project has been successful in achieving its objectives and expected results. Improvements in households' resilience to climate change have been validated from results of the end-line study in comparison to baseline values. Project support for cardamom and tea production; intercropping galangal, pineapple, and fruit trees; piloting rattan, bee keeping, and soybeans; vegetable gardening; improved rice production; mushroom production; fishponds; and support to women's savings and loans groups has resulted in reducing the impact of climatic hazards and improving villagers' incomes.

Villagers are pleased with the opportunities provided by the project and are adopting new climate change adaptation practices promoted by the project. Villagers expressed satisfaction with trainings conducted by the project; skills and understanding acquired through training are being put into practice. Activities implemented in villages are sustainable because villagers can readily see improvements and the potential for improvement in their lives by adopting project interventions. The benefits of the project will continue after the project ends.

Men's attitudes and behaviour toward women have changed dramatically because of gender training and their understanding that in order to move out of poverty men and women must work together. Men now realize that women can make valuable contributions as decision-makers in the family and community. Project staff have helped women to increase their self-esteem and confidence. Both men's and women's attitudinal and behavioural changes are permanent and will most likely evolve into greater empowerment of women.

The high degree of acceptance and adoption by villagers of the various climate change adaptation options demonstrates the project's achievement and sustainability. Villagers will continue to be positively impacted into the future from their participation in project supported interventions. CARE's and CCL's long-term commitment and extensive experience implementing development projects in Phongsaly combined with SAEDA's proven training expertise are the primary reasons for the success of the project.

The project should be extended to a second phase to build on the successes of NU-PCR and to further advance CARE's support to rural ethnic women. The continuation of the project would take advantage of existing capacity within CARE and CCL provincial offices. A second phase would allow for 1. further monitoring of activities, 2. scaling up of successful interventions, and 3. extending into additional villages. The success of NU-PCR in creating sustainable improvements in villagers' lives can be accredited to the dedication and capacity of the project's managers and staff. Project staff have developed the trust of communities required to motivate villagers to engage in new activities.

## 2.2 Activities and Results

**EXPECTED RESULT 1:** *Improved capacity of local stakeholders to assess, plan, and implement Community Based Adaptation in a participatory and gender sensitive manner*

### **A1.1 Engage Non-Profit Associations (NPAs) in CVCA design and implementation, and support NPA capacity strengthening in key areas**

**Evaluator:** *The capacities of four NPAs has been strengthened in the areas of facilitation skills, planning research, team management, collaboration at district and village levels, understanding climate variability, and analysis of climate change impacts.*

**Achieved Output:** SAEDA, CAMKID, LBA and AFC trained in and conducted CVCA in year 1.

**Description:** The two partners in this project are SAEDA and CCL were fully involved in the CVCA training, which took place in October 2014. While both partners are experienced in working on agriculture and integrated rural development, their capacities to analyse community vulnerability to climate changes strengthened through this training. SAEDA participated in the facilitation of the CVCA exercises in all three districts – Mai, Samphan and Gnot Ou. CCL took the lead to implement the CVCA in Gnot Ou district.

In addition to the project partners, three local NPAs were selected and trained to participate in the CVCA process (this includes the development of curricula (ToT) to conduct the CVCA process):

- **Community Association for Mobilizing Knowledge in Development (CAMKID)** – has a strong background in working with ethnic communities on rural development. They are based in Boukeo province and supported the CVCA process in Samphan district.
- **Lao Biodiversity Association (LBA)** – they have an environmental background and are based in Vientiane. LBA participated in CVCA process in the Gnot Ou district.
- **Agriculture and Forestry Conservation (AFC)** – are also based in Vientiane and worked with CARE and SAEDA on the CVCA in Mai district.

The reason for selecting three rather than as originally planned one NPA for participating in the CVCA was the low capacity of local organizations to manage a multi-stakeholder process in three different districts and the limitations in their time availability. A single NPA would have had to commit throughout a period of several months and none of them could shift their normal programming to the extent of being able to do so. The three NPAs also supported the adaptation of CARE's CVCA tools to the context of remote ethnic communities in the northern uplands of Lao PDR (incl. integration of gender components and translation into Lao language). Sub-grants contractual agreements (incl. ToRs) were signed with three NPAs (one agreements separately for each NPA) who started the assignments (completed in all 30x target villages by April 2015).

### **A1.2 Develop appropriate tools and training curricula for the CVCA in Phongsaly, and carry out training for partner and NPA staff**

**Evaluator:** *The training was successful in teaching participants how to use the CVCA tools and their expected output. Cross learning and relationship building among NPA's was a valuable indirect benefit from the activity.*

**Achieved Output:** Tools and training curricula developed. CVCA training conducted (for NPAs and Government counterparts) in year 1.

	Participants	No. Participants	Women
CVCA process training	Project, government, and NPA staff	35	15
Adaptation planning process I	Project and government staff	16	5
Adaptation planning process II	Project and government staff	21	8

**Description:** Based on their extensive knowledge and experience in conducting and adapting CVCA, the Raks Thai – national CARE representation in Thailand – was contracted to facilitate a CVCA training for CARE, CCL, SAEDA, CAMKID, LBA and AFC staff as well as participants from the government (PAFO, POFA, PONRE, LWU, DAFO, DONRE). The 6 days training for 33 participants included conceptual tools, such as the CARE community-based adaptation framework, as well as practical field tests of the 5 tools of the CVCA manual. The training was successful with most participants getting a good grasp of the tools and their expected output. As Thai and Lao language are very similar, communication was not an issue and participants appreciated the possibility to ask questions about the experience of Raks Thai on CVCA.

### A 1.3. Undertake the CVCA process in the project districts.

**Evaluator:** *The CVCA analysis conducted in the three project districts in 30 villages with 45 to 50 villagers each. The key findings include:*

1. *farmers currently experience significant risks from climatic hazards, which closely mirrors the global projections for Laos;*
2. *impacts on agricultural livelihoods are significant -- crops impacted are those that farmers rely on most for their income and food security;*
3. *rainfall patterns vary significantly from the past and are no longer predictable;*
4. *serious losses occur for upland rice due to early or late onset of the rainy season;*
5. *drought and hot temperatures increasingly affect agricultural production leading to shortages in rice, insufficient clean water, spreading of disease, and reduce NTFP;*
6. *drought increases crop diseases and crop losses from rats and birds;*
7. *extended periods of extreme cold have become more frequent and affect fishponds and vegetable production (both from forest and home gardens);*
8. *large and small livestock die during extreme cold conditions;*
9. *heavy rains during storms are more frequent causing landslides, destroying fishponds, polluting water, and damaging crops (maize, upland rice, coffee, and cardamom);*
10. *human diseases (malaria and diarrhoea) result from extended rains and floods; and*
11. *hailstorms damage houses, rice storage, and crops..*

#### **Achieved Output:**

	No. villagers	Women	Villages		
			Mai	Samphan	Ngot Ou
CVCA analysis in 30 villages (3 districts)	1,552	557	10	10	10

CVCA information presented to district officials in Mai and Samphan during Disaster Risk management training training.

**Description:** The CVCA analysis was done by a team of about 10-15 staff from CARE/CCL, SAEDA, three NPAs and government counterparts (province and district representatives from departments of Natural Resources and Environment (PONRE/DONRE), Agriculture and Forestry (PAFO/DAFO) and the Lao Women Union-LWU). All representatives also acted as facilitators with mixed NGO and government teams. The facilitation of the analysis took around one day per village, with further analysis and discussion during the evenings. The results were documented by the local NPAs who led the process, with support of the project teams. The main findings include:

- The key **hazards** faced in communities are floods (flash floods during the rainy season and flooding from rivers), droughts and storms (destroying crops and houses). Rain coming too late or too much at the same time was identified as key change in all three districts. In the historical timeline exercise, resettlement in the past was identified as key change to the village – leaving people without access to their fields. This issue has a high impact on long-term planning and adaptive capacity and affects many communities.

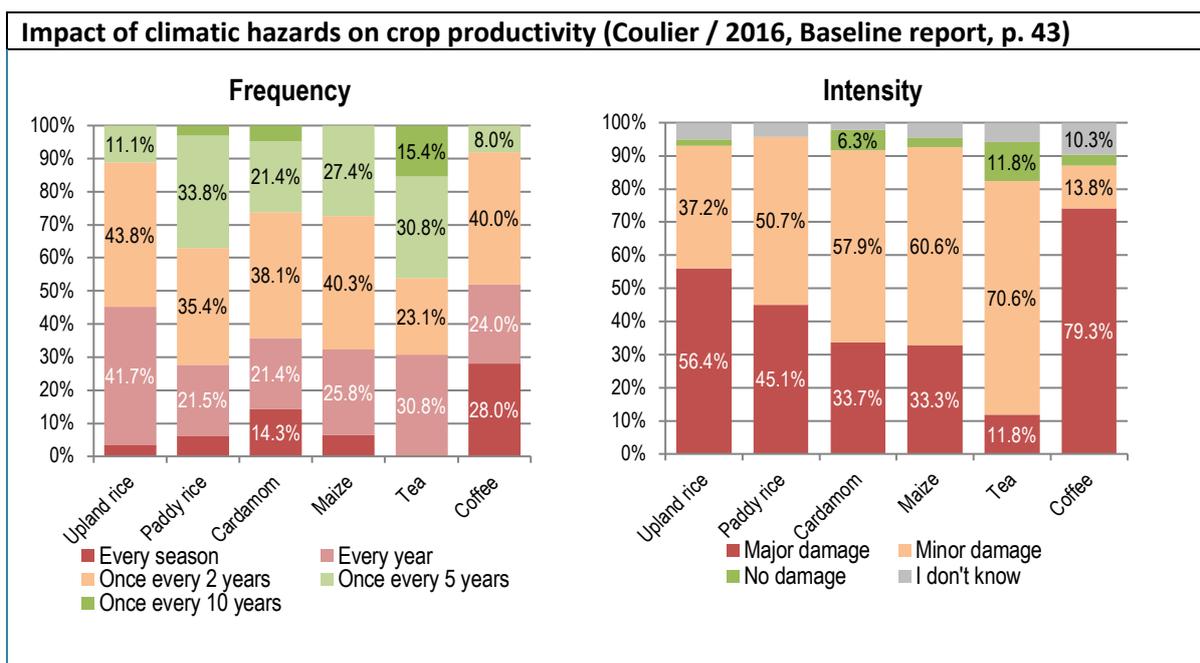
- What also came up strongly from hazards analysis (although not necessarily related to climate) was that communities struggle with animal pests, leaving households depending on livestock extremely vulnerable, as well as poor hygiene conditions.
- **Rainfall patterns** no longer respect the previous seasonal calendar and are difficult for farmers to predict and adjust to their traditional cropping calendar. Some years rainfall starts early (March-April), while some years they have to wait until late July. Both cases cause serious production losses, particularly for upland rice cultivation.
- **Drought and hot temperatures** also increasingly affects the agriculture production, leading to shortage of rice for consumption, insufficient clean water, spreading of diseases and reduced supply on Non Timber Forest Products (NTFPs). Drought also leads to spreading of crop diseases and calamities such as rats and birds.
- **Cold Weather:** Extended periods of extreme cold (between December and February) have become more frequent and affect fishponds and vegetable production (both from the forest as well as from home gardens). Often even livestock (pigs and cows) are reported to die.
- **Heavy storms** are more frequent and causing landslides, destroying fishponds, polluting water and damaging crops (particularly Maize, Upland rice, Coffee and Cardamom). Falling trees hit the houses, animal huts and destroy corns/maize and cardamoms crops. Human diseases (malaria and diarrheal) also result from extended rains and floods. Hailstorm also damage and destroy houses, rice storage, crops and even cause livestock losses.
- **Flooding,** vegetable gardens along the river are destroyed, landslide occur, water gets polluted.
- **Coping strategies** are extremely limited and strongly reliant on social networks as well as traditional beliefs around the spiritual nature of disasters. Collecting wild fruits and NTFPs from the forest is the most frequent coping strategy cited in case of loss of crops, followed by borrowing from family and neighbours and selling labour. District and neighbours providing mattresses or financial support were also mentioned. Many villages mentioned animal sacrifices or natural remedies such as burning chillies against the wind as prevention mechanisms.
- **Disaster risk reduction:** Emergency plans are supposed to exist at district level but at village levels no plans could be identified. In discussions, people mentioned storing rice, diversification (into cardamom and tea) and forest protection (less shifting cultivation, less cutting of trees, more terraces) as potential short and longer-term options.
- Upland rice fields are the most important **livelihood resource** and the resource most at risk from the most frequent hazards flood and drought. Forests identified as crucial resource but at lower risk from hazards (but under disappearance). Commercial crop plantation such as cardamom and tea seen as very vulnerable to floods and droughts.
- **Extension services:** Communities mostly say they don't have access to information on weather – while the district level authorities mention radio programmes, these seem not be considered a resource for information or decision-making. CVCA also analysed the external stakeholders available for support: In Gnot Ou, for example, communities mentioned the District Health Office, the District Education Office, the Agriculture Office and the Land Management Department as the key stakeholders (next to CCL). Private companies are mentioned as stakeholders in a limited number of villages.
- **Gender:** Discussing gender issues was integrated by asking for each hazard whether it impacted men or women and how, who had access to information, etc. It became clear that women and children are amongst those most vulnerable in situation of crisis, but also that workloads increasing after hazards affect the entire family. Women are only involved in village level discussion and planning to a very limited extent. While conducting the CVCA, the team observed that in Khmu and Thaidam communities, women were more actively involved in discussions than in Akha villages, where it proved extremely difficult to include them.

- **Livelihood and crops:** An important finding from the CVCA was that these climatic hazards significantly affect human health, livelihoods and community infrastructure. This was confirmed by the baseline study as well:

<b>Overall impact of climatic hazards (Coulier / 2016, Baseline report, p. 41)</b>			
<i>% of farmers stating impact or damage, on:</i>	<b>Samphan</b>	<b>Mai</b>	<b>Ngot Ou</b>
Livelihoods	64.2%	75.8%	60.9%
Community infrastructure	49.1%	56.7%	29.2%
Human health	74.9%	93.6%	89.8%

The large majority of farmers see direct impacts of weather hazards to their livelihoods. 70% of farmers say that weather has a negative influence on livelihood practices (what farmers grow, the livelihood mix they choose for, the techniques applied and so on). 67% of farmers say that livelihood failure due to weather is a cause of hunger.

Crops most affected by more unpredictable and erratic weather and hazards are upland rice and paddy rice, coffee, not-shaded cardamom, fruit trees, benzoin, oily climber and Job's tears. Less but still affected are maize, forest cardamom, bamboo and galangal, while the least affected are tea and broom grass. Recovery of most of these crops takes 1 to 2 years, and in some cases like upland rice or cardamom when there is significant damage or it takes time for the crops to re-grow 2 to 3 years. Coffee is considered by the large majority of farmers as not favorable in terms of weather as well as income (Coulier 2016).



It is important to stress that in addition to weather related stresses, farmers experience other types of risks related to market prices of inputs and crops, market access (e.g. no road access during rainy season in many villages) and relationships with buyers and contracts (e.g. coffee company failing on buying in Mai and Samphan).

**A 1.4. Organization of local consultations, and district and provincial inception meetings to review CVCA analysis; and organize provincial steering committee.**

**Evaluator:** *The project presented progress including the results from the CVCA. The government endorsed the project’s plan to proceed with implementing the proposed climate change adaptation in villages. Agreement made on a plan of implementation identifying the responsibilities of key actors.*

**Achieved Output:** Government counterparts informed and supportive of project activities; they understand climate vulnerabilities in the context of Phongsaly and have started to learn how to integrate it into planning and better understand the importance of required gender equality.

**Description:** Two workshops organized to report CVCA findings to District Steering Committee, one in Mai with 12 participants, 5 women; and one in Samphan (20 participants, 7 women). The workshops provided a venue to report preliminary findings on community vulnerability to climate change and impacts of climate change on livelihoods. It also presents farmers’ thoughts in terms of adaptation plan at village level. Participants discussed and added more comments on the results so that they could be used as the basis for developing village adaptation plans, district disaster prevention and control, and district socio-economic development plan. The discussion covered:

- Impact of past disasters and preparedness for future hazards ;
- Claifications on some of the data;
- Community participation in project activities;
- Coordination mechanism between project team and the government agencies;
- Appoinment of project coordinator including ToR;
- Review of DDPCC structure and clirfy on roles and repsonsibilities;
- District Disaster Response Plan.

Four Provincial Steering Committees meetings were held to report progress, results, expenditures, planned activities and budgets to people from central level, provincial and districts. Also, some issues, tools, methodologies and lesson learnt were presented at the meeting.

**A 1.5. Identify target villages and strengthen village leadership capacity**

**Evaluator:** *Target villages identified during initial planning meetings in coordination with provincial and district counterparts. Leadership capacity in villages is synonymous with leadership capacity of farmers groups. All community initiatives for resilience implemented through farmer groups.*

**Achieved Output:** 30x target villages identified. Village leadership and farmers (male and female) in 30 villages involved in CVCA and local adaptation planning. Identification of climate smart agriculture practices.

**Description:** Target villages identified through the initial planning meeting in coordination with province and district counterparts. These are:

District	Villages
<b>Mai</b>	Ngakha, Koonglook, , Mokchala, Chabeunueua, Pakpare, Parkyoun+Koksoma, Hoymuen+Bomyao, Naboua+Kangsun, Chomcheomai, Tin tok
<b>Samphan</b>	Hadnga Nueua, Hoythong, Namloy, Laoleow, Laosaen, Somboon, Kongkhum, Mok-Yon, Sakeo, Thaovong
<b>Gnot Ou</b>	Peck – Nakong, Palane, Chompor, Kaa, Seophen, Phangsane, Houyava, Tungkualing noy, Tapeusou, Voupaokang

The formal village leadership is the village head, the village representatives of Lao Front and Lao Women’s Union, the security person, justice/mediator and elders. Normally, all of them are also members of the farmer group, which is why leadership capacity of villages is interpreted as leadership capacity of farmers’ groups.

### **A 1.6. Review Village and District development plans based on CVCA analysis, and organize three CBA design workshops**

**Evaluator:** *Adaptation planning was conducted which identified and analysed livelihood options together with farmers and government staff from the perspective of increasing livelihood diversification to promote food and cash crops with low sensitivity to climate change risks.*

**Achieved Output:** Adaptation plans developed for 30 villages in three districts, endorsed by communities and local authorities. These were reviewed and updated annually.

**Description:** The plans were finalised during year 1 and 2 – based on the CVCA results. Based on the discussions during the CVCA (**step 1**), a long list of livelihood options was identified (**step 2**). This long list initially contained 22 options, among which the following twelve were prioritised:

- 1) Cardamom under forest cover:** high value cash crop with limited sensitivity to climate hazards if grown under forest cover. Farmers already practice it and have a market that promises to be sustainable (even if prices somewhat unstable) for the coming 10 years.
- 2) Intercropping fruit trees:** To promote diversification of food and cash crops and promote agro-forestry / intercropping practices instead of monoculture. Intercropped systems are better able to retain water and more resilient to climatic hazards. The fruit trees to be promoted are existing local varieties as well as testing of potential new high value crops (peach, pomelo, mango, dragon fruit).
- 3) Sustainable harvesting, marketing, processing of rattan:** NTFPs are less affected from climate hazards than other existing cash crops. Promoting value addition from existing NTFPs is a key adaptation strategy of the project. Rattan naturally exists in the forest but is not harvested sustainably, sold only in few places and not processed.
- 4) Sustainable harvesting, marketing processing of bamboo:** same as rattan above, bamboo is a major food and cash crop.
- 5) Year round vegetable production / home gardening:** As vegetable production in uplands can be exposed to climatic hazards, such as intensive rainfalls or drought, the aim is to increase vegetable production in home gardens in order to reduce the potential climate impacts on crops (therefore, on food security). Measures of protection (e.g. greenhouses) and day-to-day management by proximity to the house enable a better risk management by farmers as compared to upland vegetables.
- 6) Intensification of paddy rice production (terracing):** Paddy rice is less sensitive than upland rice. Combining upland with paddy provides farmers an additional safety net. The project will promote upscaling of terraces where feasible as well as intensification through Sustainable Rice System (SRS).
- 7) Commercial mushroom production:** Mushrooms are harvested locally in the forest and there is a strong market demand. Mushroom cultivation was introduced as a new income generation activity.
- 8) Integrated fishponds / fish protection zones:** Improving existing fishponds and integrating these with agro forestry systems or paddy rice can provide important nutritional value. The project facilitated the establishment of fish protection zones in Mai and Samphan districts, as in Ngot Ou fish protection zones have been already set up through previous CCL project.
- 9) Quality of honey production and marketing:** Honey production is currently not exploited at its full potential due to lack of investment in quality, packaging and marketing. This investment provided an additional important income to farmers who produce honey. No option for large upscaling of production itself as bee population is declining.
- 10) Improving animal health:** Livestock is a top cash and food source and serves as safety net in times of crisis. Livestock is significantly affected by climatic (and other!) hazards. Therefore, the project promoted alternative animal health practices, such as herbal medicine for poultry or bio-bedding for pigs. It also link with DAFO for vaccination campaigns.
- 11) Organic tea under forest cover:** Organic tea under forest cover is the most resilient cash crop in Phongsaly and the project improved its quality and supported farmers in Gnot Ou to grow and market organic tea.
- 12) Improving soil fertility and soil erosion control:** Sloping Agriculture Land Technique (SALT), reducing soil erosion through horizontal contour lines made of grasses.

**Step 3** was a feasibility analysis of the selected options at district level, through a participatory ranking exercise involving DAFO, DONRE, trade and commerce office as well as Lao Women’s Union. Resilience to climate change was weighed four times higher than the other options to reflect the project priority. It was important to include gender considerations especially around women’s workload, as otherwise women tend to be left out from interesting income generation opportunities or risk being marginalised further by additional workload. **Step 4** of the planning process was the same ranking (in simplified and visualised form) with each village (in a separate male and female group, then together, combining results). The ranking in the village allowed the farmer group to discuss and weigh risks and advantages of each option.

**Criteria for selection:**

- ✓ Economic viability (access, stability, markets, sustainability of income, cost-benefit)
- ✓ Institutional framework (government policies, regulatory frameworks)
- ✓ Social and cultural context (indigenous knowledge, workload of women, accessible to illiterate people and people with disabilities)
- ✓ Environmental conservation
- ✓ Resilience to current and future climate shocks
- ✓ Scope for mitigation
- ✓ Potential for replication.

The result of that step was a village adaptation plan (**step 5**) with priority options per village, available resources by farmers, government and NGO partners to implement these and a specific time. The priorities per district and village have been presented and approved at the Provincial Steering Committee meeting and informed the implementation of agricultural activities.

In addition to the agriculture livelihood options, the project has identified the following as key strategies for increasing farmers’ resilience (**step 6**) – these strategies are integrated into village plans:

- Support farmers in resilient livelihood decision-making, e.g. access to agro-weather information;
- Promote economies of scale and access to information through farmer networks;
- Promote behavior change for reducing impacts of climatic hazards, e.g. protection of animals from cold in stalls, reduction of pesticide use, etc.;
- Facilitate inter-village dialogue, for example on fish protection zones or use of NTFPs;
- Women’s access to finance as safety net through savings and loans groups;
- DRR measures, such as training to district and village emergency committees; and
- Scaling up impact and sustainability through integrating gender and resilience aspects into government planning.

Ultimately, the resulting development plans can be summarised as follows:

**Mai district**

- Kounglouk cluster (3 target villages) focused on cash crop plantation to increase income and improved upland rice varieties to increase yield. Cash crops included oily climbers, cardamom, rattan, coffee. In addition, disaster preparedness, fish conservation zone and village protection forest management, health and sanitation issues were also on the agenda.
- Park pea cluster (3 villages) focused on preparedness to river flood and flash flood, drought, and disease. The socio-economic development plan of this cluster includes expansion of rice field where feasible, small irrigation canal, construction of gravity-fed water system, health and sanitation. Livelihood activities focused on cardamom, coffee, rattan and community-based forest management.

- Nabua – Kangsan cluster focused on preparedness to cope with drought, heavy rainfall, health and sanitation. The socio-economic development plan emphasizes on gravity water system where feasible, cardamom, coffee, protection forest.

#### **Samphan district:**

- Naxay cluster (3 villages) focused on coping with drought, flood and animal disease. Activities include vaccination and animal health prevention, integrated cropping system, cardamom, galangal, forest protection, soil erosion along Nam Ou river.
- Laoleo cluster (7 villages) focused on coping with drought, storm, animal disease and cold spells. Activities include support to DAFO for vaccination, integrated cropping, cardamom, galangal, fish culture, home garden, coffee, rice terracing, forest protection and reforestation .

#### **Gnot Ou district:**

- Naluang cluster (3 villages) focused on coping with cold spell, heavy rains, landslides and animal disease. Activities include vaccination and animal health, integrated cropping, cardamom, tea, irrigation canals, village forest and forest protection.
- Khammee cluster (2 villages) focused on coping with cold spell, heavy rains, landslides and animal disease. Activities include integrated cropping, cardamom, rice yield improvement, fish raising and home garden.
- La cluster (3 villages) focused coping with cold spells and activities include tea production, marketing and value addition, forest protection .
- Nayhao cluster (2 villages) and Outai (1 village) focused on coping with drought, storm, animal disease and cold spell. Activities include integrated cropping, cardamom, rice yield improvement, fish raising, and home garden.

#### **A 1.7. Develop training modules, coaching and follow up protocols, and supporting IEC material for agriculture activities**

**Evaluator:** *SAEDA produced an extension training manual on key agricultural topics and climate change adaptation strategies. The manual gathers a range of materials from different organizations and combines them into a comprehensive training manual.*

**Achieved Output:** One comprehensive training manual on “Agriculture Promotion Techniques in Climate Change Adaptation” (1,000 copies distributed). Sets of ten posters on agriculture techniques distributed in 30 villages).

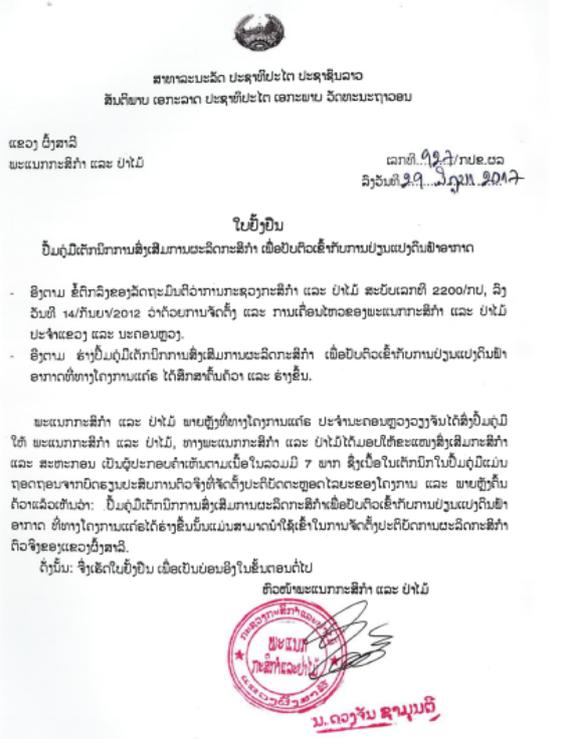
**Description:** Training modules developed and rolled out on several topics, targeting CBOs (Farmers Groups, VSLA, Livestock Groups, and Handicraft Groups) in 30 villages. The most significant and largely distributed product in the **extension training manual** produced by SAEDA on key agricultural topics and climate change adaptation strategies (hard copies available on request). The manual collects a range of materials from different organizations and combines them into a comprehensive training manual. The manual covers the following topics:

- sustainable agriculture - sustainable rice systems, seed conservation, organic vegetable production, composting, mushroom production, and integrated cropping systems
- impact and proper use of pesticides
- management of natural resources - protection of water sources, zoning of agricultural land, sloping agricultural land technology, reforestation, and rattan conservation
- management of cash crops - cardamom, tea, fruit trees, and galangal
- establishment and management of farmer organisations, including gender mainstreaming.

About 1,000 copies of this manual produced and distributed to relevant stakeholders, including Samphan DAFO 200 copies, Mai DAFO 200 copies, Gnot Ou DAFO 200 copies, Phongsaly PAFO 200 copies, CARE International 100 copies and CCL 100 copies.

Other sets of IEC material include **posters on agricultural techniques** and others. These include (i) Impact of herbicides and insecticides, (ii) Sustainable Rice Intensification, (iii) Fish raising (iv), Chicken raising (v), Pig raising, (vi) Crop varieties selection, (vii) Fruit tree plantation, (viii) Khuang Doung

cardamom plantation, (ix) Vegetable home garden and (x) Bio-fertilizer production. These posters were posted on bulletin boards, village chief's house and village meeting room ( 1 set of ten posters/village).

Cover page of the Agriculture manual (45 pages)	MAF endorsement on the first page
 <p>ປື້ມຄຸ້ມ ເຕັກນິກການສົ່ງເສີມການຜະລິດກະສິກໍາເພື່ອ ການປັບຕົວເຂົ້າກັບການປ່ຽນແປງດິນຟ້າອາກາດ Agriculture Promotion Techniques in Climate Change Adaptation ໂຄງການສົ່ງເສີມການປັບຕົວເຂົ້າກັບການປ່ຽນແປງດິນຟ້າອາກາດເຂດເນີນສູງພາກເໜືອ ໃນ ສປປ ລາວ Northern Uplands-Promoting Climate Change Resilience Project (NU-PCR) in Lao PDR</p>	 <p>ສາທາລະນະລັດ ປະຊາທິປະໄຕ ປະຊາຊົນລາວ ສັນຕິພາບ ເອກະລາດ ປະຊາທິປະໄຕ ເອກະພາບ ວັດທະນະຖາວອນ ແຂວງ ວຽງສາລີ ພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ ເລກທີ 92/ກປ.ສລ ວຽງສາລີ, ວັນທີ 29.12.2017 ໃບຢັ້ງຢືນ ປື້ມຄຸ້ມເຕັກນິກການສົ່ງເສີມການຜະລິດກະສິກໍາ ເພື່ອປັບຕົວເຂົ້າກັບການປ່ຽນແປງດິນຟ້າອາກາດ - ສິ່ງຕາມ ຂໍ້ຕົກລົງຂອງລັດຖະມົນຕີວ່າການກະຊວງກະສິກໍາ ແລະ ປ່າໄມ້ ສະບັບເລກທີ 2200/ກປ, ລົງ ວັນທີ 14/ກັນຍາ/2012 ວ່າດ້ວຍການຈັດຕັ້ງ ແລະ ການເຄື່ອນໄຫວຂອງພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ ປະຈຳແຂວງ ແລະ ນະຄອນຫຼວງ. - ສິ່ງຕາມ ຮ່າງປື້ມຄຸ້ມເຕັກນິກການສົ່ງເສີມການຜະລິດກະສິກໍາ ເພື່ອປັບຕົວເຂົ້າກັບການປ່ຽນແປງດິນຟ້າ ອາກາດທີ່ທາງໂຄງການແກ້ໄຂ ໄດ້ສຶກສາຄົ້ນຄ້ວາ ແລະ ຮ່າງຂຶ້ນ. ພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ ພາຍຫຼັງທີ່ທາງໂຄງການແກ້ໄຂ ປະຈຳນະຄອນຫຼວງວຽງຈັນໄດ້ສົ່ງປື້ມຄຸ້ມ ໃຫ້ ພະແນກກະສິກໍາ ແລະ ປ່າໄມ້, ທາງພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ໄດ້ເມອບໃຫ້ຂະແໜງສົ່ງເສີມກະສິກໍາ ແລະ ສະຫະກອນ ເປັນຜູ້ປະກອບຄໍາເຫັນຕາມເນື້ອໃນລວມມີ 7 ທາກ ສົ່ງເປືອໃນເຕັກນິກໃນປື້ມຄຸ້ມແມ່ນ ຖອດຖອຍຈາກຄວາມຈິງປະສົບການຕົວຈິງທີ່ຈັດຕັ້ງປະຕິບັດຕະຫຼອດໄລຍະຂອງໂຄງການ ແລະ ພາຍຫຼັງຈົນ ຄໍາເວົ້າເປັນຄຳວ່າ: ປື້ມຄຸ້ມເຕັກນິກການສົ່ງເສີມການຜະລິດກະສິກໍາເພື່ອປັບຕົວເຂົ້າກັບການປ່ຽນແປງດິນຟ້າ ອາກາດ ທີ່ທາງໂຄງການແກ້ໄຂຮ່າງຂຶ້ນນັ້ນແມ່ນສາມາດນໍາໃຊ້ເຂົ້າໃນການຈັດຕັ້ງປະຕິບັດການຜະລິດກະສິກໍາ ຕົວຈິງຂອງແຂວງວຽງສາລີ. ດັ່ງນັ້ນ: ຈຶ່ງເຮັດໃບຢັ້ງຢືນ ເພື່ອເປັນບ່ອນອີງໃນຂັ້ນຕອນຕໍ່ໄປ ຫົວໜ້າພະແນກກະສິກໍາ ແລະ ປ່າໄມ້ ນ. ດວງຈັນ ສາມຸນຕີ</p>

**A 1.8. Develop capacity-building approaches on key resilience themes.**

**Evaluator:** Key resilience themes identified during the CVCA process, the adaptation planning process, and the baseline. Capacity building approaches rolled out in 30 villages.

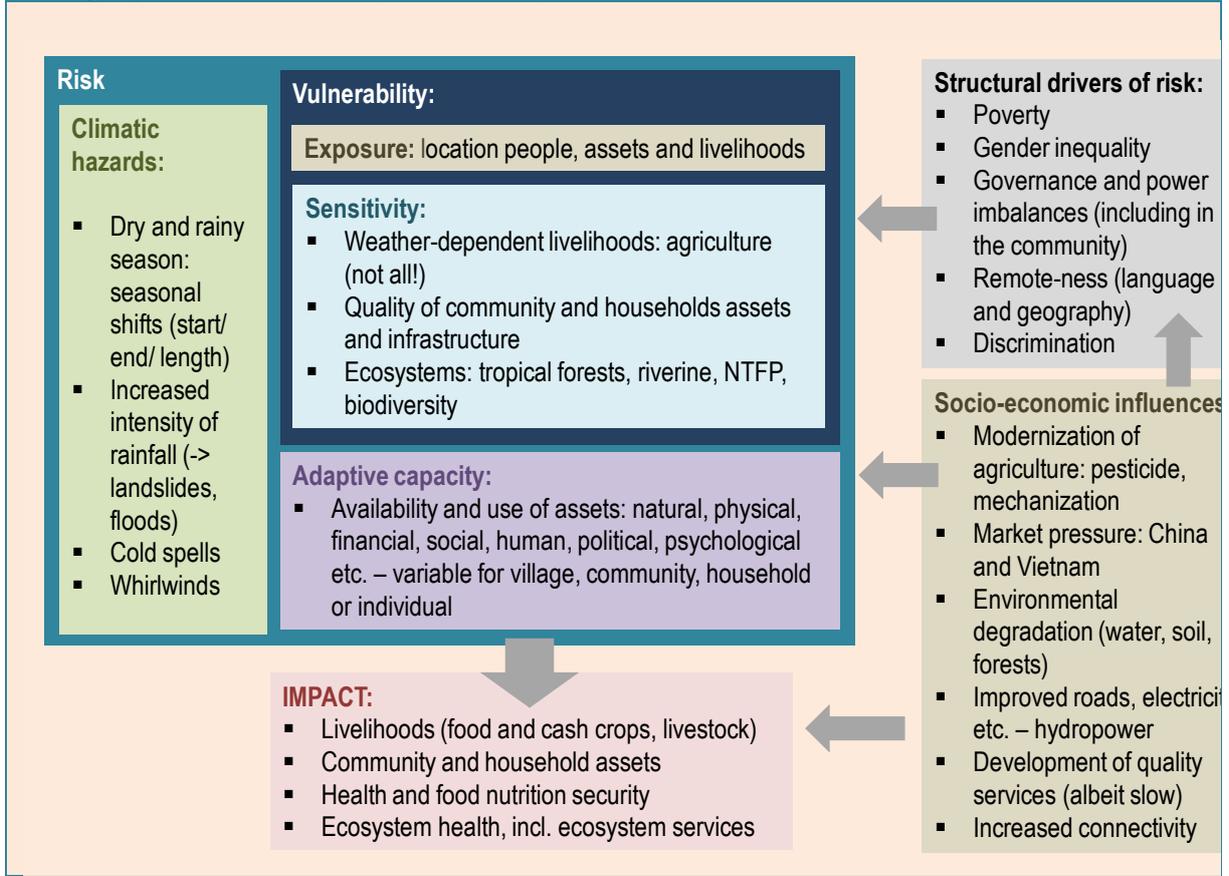
**Achieved Output:** Clear definition of resilience and related framework. Several trainings provided on eight resilience related themes, with 2,216 participants (including 937 women).

**Description:** Any capacity building approach on resilience needs to start with a solid understanding of what resilience means in a given context. For the NUPCR project in Phongsaly, the process to developing that understanding during the reporting period has been:

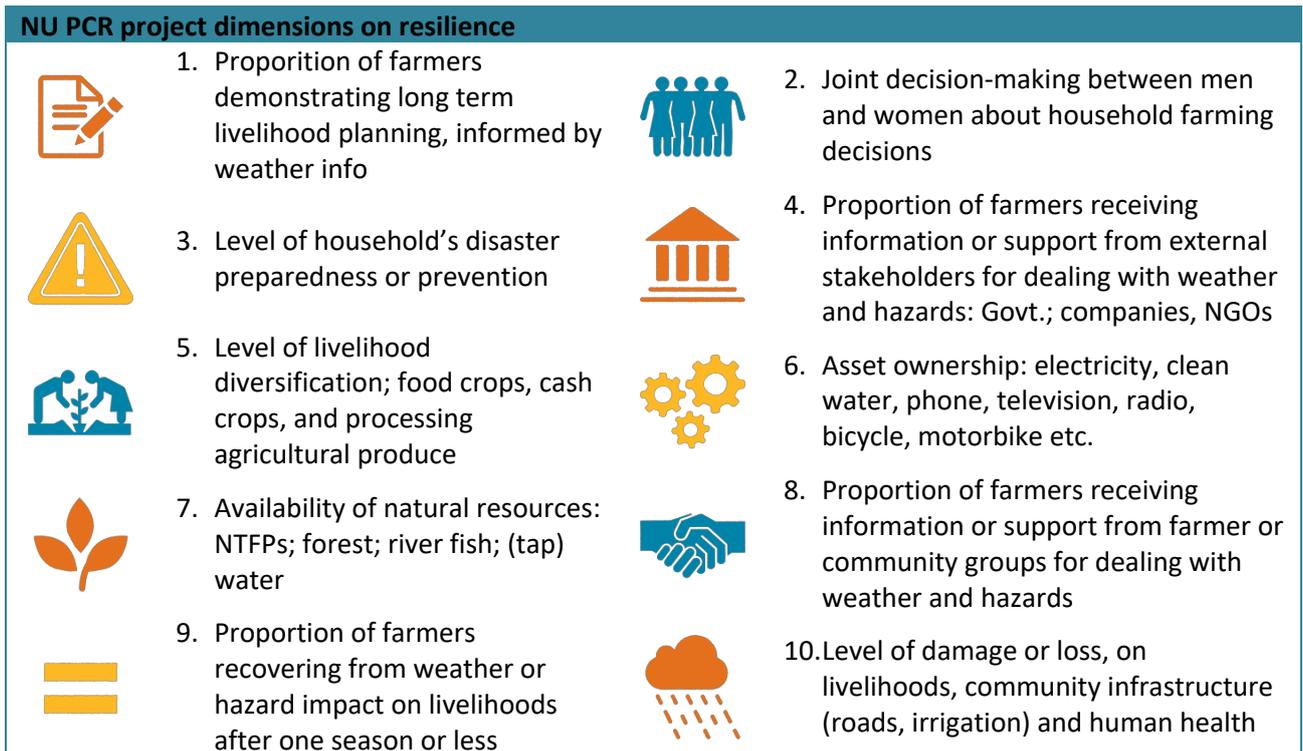
- 1) CVCA analysis, highlighting the climate hazards and their impacts on local farming communities combined with climate scoping studies (macro level trends) conducted in 2014;
- 2) technical visit by climate change expert in Gnot Ou to CCL (October 2015) and technical visit by climate change expert to CARE in Mai during December 2015: During both visits the climate data and local context was analysed with a view to existing theories on climate resilience and climate smart agriculture (see visit reports Annex 6 and 7);
- 3) and finally development of a framework of resilience in Phongsaly as well as a tool to understand and assess it in February 2016.

The following table highlights factors that determine resilience in the context of Phongsaly – it mainly shows that resilience is more complex than weather impacts on crops, including social, economic, cultural and political factors.

**Phongsaly resilience context (Coulier 2016)**

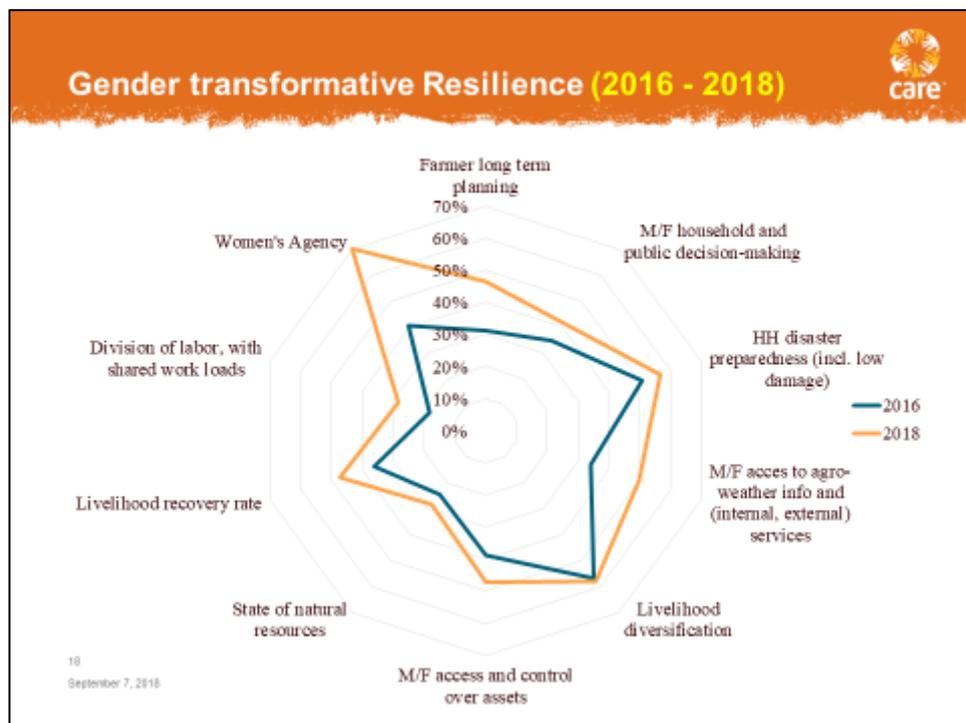


Starting from the list of indicators in the project design and through facilitation by the international climate expert, the team came up with the following set of dimensions or indicators of resilience:



These dimensions were 1) integrated as a set of questions into the baseline survey and 2) discussed in separate men's and women's focus group discussions.

Thereby the project not only collected information on the dimensions but also started capacity building of farmers on acting to improve resilience as in each of the dimensions they not only assessed their own level of resilience but also asked "so what?" can be done to improve it. The following are the results from the baseline and endline scores.



Though we can observe an overall improvement on all resilience indicators (despite short time period), it is interesting to observe that not much has changed in terms of livelihood diversification. This was a significant learning for the team. In fact, the livelihood in target villages is already highly diversified and diversifying it even further would have rather been detrimental (no longer cost-effective because of too dispersed efforts and investments). Therefore, the diversification did not focus on further diversifying the agriculture production, but rather on adding value (e.g. processing) of already existing practices.

Capacity-building approaches implemented under the following themes.

- Implementing **diversified agriculture activities** for climate change adaptation strategies. CARE, CCL, and SAEDA technical training materials consolidated for the various intervention options in which SAEDA produced a comprehensive CCA training manual.
- Practicing long-term livelihood planning and **seasonal planning based on whether forecasts**. Long-term planning conducted during the adaptation planning process and annual review of village plans. Seasonal planning conducted in villages three times during the agricultural cycle – prior to planting, mid-cycle, and during the harvesting stage. Tools from CARE Vietnam and NAFRI have been adapted to the Lao context.
- Improving **disaster preparedness** at district and village levels. A training for District Disaster Management Committees conducted in Mai and Samphan. Training for disseminating weather information provided to Village Disaster Management Units.
- The NUPCR resilience framework identifies **joint decision making between husband and wife** as key aspect of resilience. Gender considered a key aspect of resilience. Joint household level decisions on livelihoods and women's participation at community level are key elements of sustainable livelihoods – decisions that do not include 50% of the people concerned are simply not as good! CARE previously had a gender negotiation-training module 1 and a module 2 developed (under another project). Furthermore, CARE gender Advisor helped to develop a "workload

monitoring tool” for workload sharing within households. Ongoing discussion on workload for each activity integrated in the selection of agriculture activities.

- Building the capacity of **farmer groups** to improve resilience by expanding access to information. Trainings conducted on the following topics: 1. group structure and management, 2. leadership skills, 3. agricultural techniques, 4. creation of district networks, 5. community based organization self-monitoring, and 6. natural resource management (fish conservation zones and sustainable harvest of NTFP).
- Another key aspect of resilience is the sustainable management of **natural resources**. Training approaches for this under NUPCR include the setting up of fish conservation zones (developed by CCL prior to this project), establishing sustainable management and harvesting zones for rattan (conducted in year 3 in 2 villages in Samphan district), as well as training on how to integrate tea and cardamom production into forest areas (CCL and CARE).

Overview of trainings provided is provided in Section A 2.2

### Assessment of RESULT 1 based on the achievement of related indicators, as reported in the final evaluation:

**Indicator for ER 1.1:** Thirty farmer organizations are set up at village level and farmers benefit from them by receiving higher prices on cash crops as compared to individual selling

	Baseline value March 2016	Target (+ 25% of baseline value )	End-line value March 2018	Assessment
Functioning of groups: increase in scoring on the CBO assessment tool	37.3%	46.6%	56.1%	Achieved
Receiving higher prices where groups sell together compared to individually	<b>Average price sold (kip/kg)</b>			
<b>Product</b>	<b>Individually</b>	<b>Farmer's group</b>		
Cardamom	250-300,000	350-400,000		Achieved
Galangal flower	15-20,000	25-30,000		Achieved
Benzoin	120-140,000	150-180,000		Achieved
NTFP tuber	12-15,000	15-18,000		Achieved

**Indicator for ER 1.2:** At least 25% increase of farmers receiving agro-advice from farmer groups

	Baseline value March 2016	Target (+ 25% of baseline value )	End-line value March 2018	Assessment
Number of M/F farmers stating they received agro-advice from farmer groups	28.2%	35.2%	43.5%	Achieved
Increase in scoring in area 2 of the CBO tool	37.3%	46.6%	56.1%	Achieved

**Indicator for ER 1.3:** Local government has analysed impacts of climate change and prioritized adaptation options for their district

	Baseline value March 2016	End-line value March 2018	Assessment
Participation of DONRE and DAFO in adaptation planning meetings and discussion of supporting village plans	DONRE and DAFO participated in planning and ranking of CCA options	DONRE and DAFO participated in monthly, quarterly, and annual CCA planning meetings	Achieved

**Indicator for ER 1.4:** Based on CVCA, adaptation options have been identified per village and included into village plans

	Baseline value March 2016	Target	End-line value March 2018	Assessment

Village plans exist in 30 target villages and include adaptation options	0	30	30	Achieved
--	---	----	----	----------

**EXPECTED RESULT 2:** *Improved community resilience through the implementation of Climate Change Adaptation and Disaster Risk Reduction pilot interventions that benefit women in particular.*

### A 2.1 Establish and strengthen farmer groups

**Evaluator:** *Groups run well with good management of village funds, record keeping, reporting, and planning of activities. Each group has a five-member management committee with at least two women having leadership roles. When questioned as to the benefits of belonging to the farmer's group, villagers' first response was that they are now able to earn more money selling their products collectively.*

**Achieved Output:** 34 Farmers groups established in 30 villages (10 in Mai with 457 households, 14 in Gnot Ou with 683 households and 10 in Samphan with 638 households). Of these groups, 14 focused on production techniques and 17 on marketing and negotiation. Each group has a five-member management committee with at least two women having leadership roles. CBO assessment tool developed and conducted in all villages.

**Description:** Farmer Groups were already set up through previous work by CARE, CCL and SAEDA in 10 villages in Gnot Ou, 10 in Samphan and 3 in Mai. However, these were at different stages of organisational capacity, with some only formed and others already having received intensive training and support over several years. The project team worked further with these 23 groups and additionally established 7 groups in the villages in Mai district (where CARE just started working) and 4 in Gnot Ou. The main purpose of setting up the groups are:

- Provide support to farmers for long term livelihood planning;
- Provide market information and market outlets to their members;
- Improve the internal quality control system on export commodities to increase added value;
- Improve farmer to farmer exchanges and knowledge transfer on specific commodities as well as value chain expertise;
- Collect & disseminate agro-weather information to their members; and
- Improve women's confidence and role in collective decision making regarding livelihood planning.

In 2015, the project team has developed the following vision for farmer groups, which guided the work under this component:

Group members have enough food to eat from their production and sales and their incomes are increased. Parents are sending their children to school and community members are healthy. Farming households are planning for the future and can identify and implement activities to reduce risks and hazards (such as landslides, flooding and drought). They plant more trees/adopt agro-forestry practices. Farmers know which crops to plant that are adapted to climate changes. Groups are well managed with good management of village fund, record keeping, reporting etc. There are women heads of village committees.

There are several key areas identified as core to the functioning of farmer groups – the project works to build capacity of groups along these areas and CARE has developed a tool for farmers to self-assess group capacity according to these criteria (called “**CBO capacity assessment tool**” for community based organisations), helping the groups to identify areas for improvement and the project team to provide more targeted support to groups based on their needs:

1. **The group's structure, vision and organisation:** Do groups have capable leadership? Do they have an actual joint purpose? Do they have rules and decision making processes for consensus? Do women participate and speak equally in meetings?



2. **The group's agriculture technical capacities:** Do members share information on market demand, quality and prices? Do they negotiate with traders together? Do they enable farmers to get higher incomes? During the farmer group assessment, groups in Samphan scored themselves on average at 70% on agriculture technical knowledge, in Mai at 56% and in Gnot Ou at 60%. This reflects the fact that in Mai district, most of the groups were newly. Also, in Mai, many villages still have limited products to sell to markets.
3. A third dimension assessed was the group's practices on **maternal and child health and hygiene**. This is not directly related to the NUPCR project, but in many villages CARE or CCL have worked in integrated rural development programmes for some time and wanted to assess this as changes in the hygiene and health seeking behaviour and situation are expected or encouraged as part of these. Quite simply, gains in income could be set off through low environmental health. It is expected that the group also has an important function in sharing this kind of information with its members. Gnot Ou groups scored themselves at almost 60% for this section, in Mai at 69% and Samphan at 73%, reflecting the success of ongoing work on different thematic areas under a same programme.
4. A fourth area assessed is the **supportive networks**, which a group can draw upon. This includes mainly whether a group regularly shares information with neighbouring villages. While year 1 and 2 focused on establishing and training the groups, in year 3 and 4 cross-learning and exchange visits took place. The charts below summarise the findings of the self assessment and highlight the strengths and weaknesses of farmers groups in target villages. As we can see, the group's role in building agriculture technical skills is most effective, as well as empowering farmers (i.e. integrating all households of the village and supporting women's empowerment). FGs also improve services to its members in terms of information market access and market outlets. However, more support must be provided to assist FGs in developing their role beyond access to market (i.e. provide information on health, land rights, etc.) and in developing networks with other FGs working in similar value chains in the district.

#### **A 2.2. Deliver agricultural training package, provide inputs and follow up to farmer groups and local government extension workers in three districts.**

**Evaluator:** *The project provided 12 options on climate change adaptation for farmers to select. Training and input support provided for all the options. The project used the wealth ranking of households produced by the government. The quantity of inputs provided by the project varied depending on villagers' relative wealth status. Villagers determined which activities they would join based on their interest and available labour within their families. Households could select to participate in more than one activity.*

**Achieved Output:** Training conducted on 20 different domains, for 3,124 participants (1,398 women). As detailed below, these training and additional production inputs provided, contributed to impressive income generation (exceeding EUR 1.5 million, mostly derived from Cardamom and Tea value chains).

**Description:** A large number of relevant training topics provided to the groups in collaboration with district offices, as shown in table below.

Summary of main training conducted in target villages:

Topics	Participants	Female	# of villages		
			Mai	Samphan	Gnot Ou
Crop varieties selection	233	32	3	2	7
Chicken raising techniques	566	214	5	3	11
Animal vaccination	1.307	580	10	10	11
Group management and leadership	20	9	9	8	
Marketing and negotiation	39	11	9	8	
Establish farmer groups	49	9	8	8	11
VSLA and group management	48	48	9	7	
Farmer group management and negotiation	18	9	9	9	
Gender 1	338	203	8		
Gender 2	381	201		5	5
Review of farmer group management	51	25	9	8	
Bamboo processing 1	16	14	3	2	2
Bamboo processing 2	13	10	6	4	2
Study tour to see rattan production and processing	17	5	3	2	
Training on rattan processing in Mai	12		2	3	
Training on rattan processing in Gnot Ou	8		6	5	
Exchange visit on cardamom production	29	3	5	5	4
Exchange visit on farmer group performance	52	20	10	10	
Cross visit to Vietnam to exchange on integrated cropping system	11	2	3	2	
Cross visit to Luangprabang to see fruit tree production	6	3	2	2	

In terms of input supply, coaching and follow up of farmer groups and local government extension workers, the following are main achievements, separately for each livelihood option.

**1) Promote Cardamom under forest cover**

The promotion of cardamom under forest cover is one of the twelve agricultural livelihood options selected by the project (refer to report of YR 3 for more background information and rationale). The project team supported farmers through technical advice on the selection of growing sites, calculation of labour and income possibilities (prioritising within general village plans) and technical advice for planting and harvesting. The project also supported significantly through the provision of cardamom seedlings.

\

Table: Inputs supply and coaching for production of Cardamom

District	Guangdong varieties			Pakxong Varieties		Hectares
	# of villages	HH	# of seedlings	# of villages	# of seedlings	
<b>Mai</b>	10	667	488,000	5	75,000	80
<b>Samphan</b>	7	288	152,500	1	7,500	25
<b>Gnot Ou</b>	8	392	527,870			86.5
<b>Total</b>	<b>25</b>	<b>564</b>	<b>1,168,370</b>	<b>2</b>	<b>82,500</b>	<b>191.5</b>

Table: Cardamom drying ovens

No.	District	2016			2017			# of HH	# of ovens
		Village	# of HHs	# of ovens	Village	# of HHs	# of ovens		
1	<b>Samphan</b>	5	195	97	5	234	117	429	214
2	<b>Mai</b>	5	110	55	4	198	99	308	154
3	<b>Gnot Ou</b>				1	33	2	33	2
<b>Total</b>		<b>10</b>	<b>305</b>	<b>152</b>	<b>10</b>	<b>465</b>	<b>218</b>	<b>770</b>	<b>401</b>

Table: Production and income from Cardamom

District	# of villages	# of HHs	Guandong (kg)		Pakzong (kg)		Total (LAK)
			Dried	Fresh	Dried	Fresh	
<b>Mai</b>	7	280	41	343	7,615	6,520	213,245,000
<b>Samphan</b>	10	719	19,255	29,038	565	600	8,030,045,000
<b>Gnot Ou</b>	10	412		52,297			2,211,173,000
<b>Total</b>	<b>27</b>	<b>1,411</b>	<b>19,296</b>	<b>81,678</b>	<b>8,180</b>	<b>712</b>	<b>10,454,463,000</b>

We often tend to oversee such numbers (because in LAK there are often many zeros), but the figures reported above are very impressive, corresponding to an annual income (2017) of about 1.1 Million Euros. This is about 1/3 of the total project budget. Of course, if we divide this by the number of households benefiting from the income (about 1,411 HH), the income per households is «only» about 823 EUR in 2017.

Cardamom Plantation



Cardamom Ovens



## 2) Intercropping fruit trees

Intercropping promoted in coffee plantations to prevent soil erosion, provide food supply and generate income. In 2016, this activity focused on 8 villages in Samphan benefiting 80 households, 7 villages in Mai with 50 households and in 10 villages in Gnot Ou with 443 households. In 2017, the activity benefited 5 villages (45 households) in Samphan and 8 villages (70 households) in Mai districts. 24,000 seedlings were distributed for the intercropping in 67 hectares of coffee plantations.

**Table: overview of inputs provided for intercropping**

District	# of villages	# of HHs	Number of seedlings		Total seedlings	Area (ha)	Survival rate
			2016	2017			
Samphan	8	125	4,720	1,575	6,295	28	86%
Mai	7	120	3,000	1,400	4,400	20	76%
Gnot Ou	10	443	13,309		13,309	19	47%
Total	25	688	21,029	2,975	24,004	67	

The fruit trees included mango, banana, orange, durian, longan, pineapple and dragon-fruit. Farmers are interested as fruits have high prices on local markets (up to 25.000 kip / kg depending on the fruit) and the supply in upland areas is very limited. This activity will yield financial income only after the end of the project as fruit trees take a minimum of four years to produce. Anecdotal evidence shows that farmers in surrounding villages along the road have started dragon-fruit plantations on their own, inspired by this activity. Dragon-fruit on the local markets is imported from Vietnam and has a potential market.

## 3) Sustainable harvesting, marketing, processing of rattan

Rattan grows naturally in the forest but due to rising prices on the Chinese as well as local markets it has been overexploited to an extent where few areas in Mai and Samphan with high production remain (this is different in Gnot Ou where larger forest areas are still available). Farmers collect rattan to sell stems for eating in the local markets and rattan seeds to export to China. As the demand is high and both practices do not leave the rattan plant growing long enough to expand, the prevalence is reduced. Based on a research on NTFP marketing opportunities conducted in Mai and Samphan, the project set up rattan nurseries and protected planted areas in some pilot villages in order to maintain biodiversity and demonstrate that sustainable rattan production can be a business model. However, the rattan seeds take a long time to grow and nurseries cannot be made functional within the timeframe of this project.

Progress made on setting up sustainable harvesting areas in 6 villages in Mai and Samphan districts, involving 30 households supplied with 6,000 rattan seedlings. The team together with the villagers identified a forest area where rattan grows abundantly and conducted a survey indicating the exact production volume. Training also provided on the propagation of rattan from 150 Kg of wild rattan.

In addition, six farmers from three villages were trained in Gnot Ou on how to produce rattan chairs and tables, which fetch a high price on local markets.

#### **4) Sustainable harvesting, marketing processing of bamboo**

Sustainable harvesting areas were set up during the NTFP survey in two villages. Bamboo grows abundantly and prices for bamboo shoots in the local market while low are significant enough to make this an important extra income generating activity for many households. Bamboo also grows throughout the year and thus increases household's resilience as they can harvest and sell in periods where there is less income from main cash crops.

The key support that the project could provide on bamboo is supporting farmers to negotiate better deals with local traders when selling in bulk. For example Thaovong village, as a result of negotiations, now sells the bamboo at 5.000 kip instead of 3.000 per kg.

#### **Production of Bamboo handicraft**



#### **5) Year round vegetable production / home gardening**

Home garden production is one the top training topics selected by farmers of target villages (72% of farmers, Baseline 2016). The project expanded the production season, scale and market access for vegetables grown in home gardens through seed selection, water harvesting methods and promotion of different types of seeds. As vegetable production in uplands can be exposed to climatic hazards, such as intensive rainfalls or drought, the aim was to increase vegetable production in home gardens in order to reduce the potential climate impacts on crops (therefore, on food security). Measures of protection (e.g. greenhouses) and day-to-day management thanks to a proximity to the house enable a better risk management by farmers as compared to upland vegetables. CARE, CCL and SAEDA trained farmers on the different techniques necessary to set up home garden (particularly for the production during the wet season): composting and production of organic fertilizer, bedding plants development, greenhouses construction, etc. Villagers provided material and labour whereas the project supported the provision of some equipment (plastic cover for the greenhouse, nails and wire).

The beneficiaries are 17 villages (5 in Samphan, 7 in Mai and 5 in Gnot Ou districts) involving 234 households. Main crops cultivated include Mustard, Morning Glory, Coriander and Cabbage.

#### **Vegetable Home Gardens for wet season**



### 6) *Up-scaling and intensification of paddy rice production*

Paddy rice is less sensitive than upland rice, in line with government policy and more productive than upland rice on the same surface. Combining upland with paddy provides farmers an additional safety net. In consequence, the project is promoting extension of irrigated areas when it is possible as well as intensification of rice production in paddy fields through Sustainable Rice System (SRS) planting methods (spacing of crops), exploring combination with fish raising, seed selection and off season use. Gnot Ou team started to train households on SRS techniques in 2015 and Mai in 2016. As shown in the table below, this simple technique leads to significant improvement in yields and for the 2017 season, many more households are interested in applying it (and HHs which apply it now use it for their entire paddy surface rather than a test plot).

District	# HH	Seed (kg)	Production (ton)	Year I: Traditional yield	Year I: SRS yield	Year II: Traditional yield	Year II: SRS yield
Gnot Ou	78	722	9	2.2 - 2.3 t/ha	3.7 - 4.1 t/ha	2.3 - 3.0 t/ha	4.3 - 5 t/ha
Mai	42	438	3	n.a.	n.a.	3.0 - 4.3 t/ha	4.5 - 6 t/ha
<b>Total</b>	<b>146</b>	<b>1,160</b>	<b>12</b>				

Results obtained also highlight the advantages of the agro-ecological technique. However, some farmers faced some pest management issues with snails' invasion in paddy field forcing farmers to spend more time in paddy field to put the snails off.

### 7) *Commercial mushroom production*

Mushroom production has been introduced in Mai and Samphan as a new income generation opportunity – income diversification being one of the main strategies for resilience of the NUPCR project. Mushroom harvesting is a good opportunity for poor households as it requires little land and labour only initially (about 2-3 days) when setting up the production. Mushrooms can then be harvested during 3-4 months. After that, the bags needs to be prepared again and spores injected. This needs an investment, which is why the team includes training to farmers on how to plan for management of income and expenditure needed for this activity. Initially, poor farmers were less willing to try, therefore one poor and one interested family were chosen for the pilot in each village. Later on, the activity focused on poor families only. Many people are interested as the market demand is high and price attractive compared to other vegetables (1 kg sells for 15.000 – 25.000 kip). Support provided in 15 villages (7 in Samphan and 8 in Mai districts) benefiting 31 households.



These produced 2,154 kg of mushroom, of which 673 kg for consumption, 1,491 kg for sale (25-30,000 LAK/Kg), earning a revenue of 31,148,500 LAK (about EUR 3,400).

### 8) Integrated fishponds / fish protection zones

Improving **fishponds** contributes to nutrition and food security as well as providing an opportunity for income generation. In 2016, CARE supported 220 households in 16 villages in Mai and Samphan for fish raising providing fingerlings as well as with technical advice on fish raising. A total of 1,542 kg of fingerlings were provided, including four different types of fish. In 2017, the support extended to additional 9 villages (96 households) in Mai district, 8 villages (102 households) in Samphan and 7 villages in Gnot Ou (83 households). Ultimately, 526 households benefited from 88,920 fingerlings distributed. The initial mortality rates were of about 4% in Mai and 20% in Samphan – the latter being due to flooding during the rainy season, which washed away fishponds in places normally considered safe. Results in 2018 indicate a production of 2,364 Kg of fish in Mai and Samphan, of which 1,577 Kg used for home consumption, 303 Kg used for religious purposes, 127 Kg shared with relatives and 357 Kg sold (generating earning of about 7,140,000 LAK).

In addition to providing fingerlings for fish raising, the project team started to work on setting up **fish protection zones in rivers**. The purpose is to increase the volume of fish by setting up rules for sustainable management, such as not fishing with dynamite, not fishing in a certain breeding area and management rules (i.e. fines) in case these are not adhered to. This support targeted 5 villages in Mai district and one village in Gnot Ou, leading to 23 fish conservation zones.

### 9) Quality of honey production and marketing.

Training provided on how to manage bee keeping for 13 households in 3 villages in Mai district, 15 households in three villages in Samphan. The training includes how to attract bees to hives, clean the hives, prevent bees from predators, harvest and conservation of honey. After the training, required equipment provided.

District	# of HHs	Helmet	Bucket	honey filter	clothes	Gloves	Plastic	Bottles (250 ml)	300 ml	500 ml	1000 ml	Hives
Samphan	15	15	15	15	15	15	15	900	720	900	240	180
Mai	13	13					6					135
Total	28	28	15	15	15	15	21	900	720	900	240	315

**Bee Keeping: Hives and produced honey**



### 10) Improving animal health

Small livestock raising is an activity for which farmers are very interested to get technical support (92% of farmers: Baseline 2016). However, as for chicken and duck raising, farmers face many issues about pigs, especially a strong annual mortality (around 15% of the pig population each year). In most target villages, pigs grow in open area and are not vaccinated against main diseases affecting pig population (pest porcine, cholera, etc.). Improvement of small livestock raising has the potential to increase food diversification for households, meat consumption and incomes in the case where households sell some animals in the village or in the district markets. Small livestock raising can be an interesting option for poorest families who lack labour (single mothers, etc.) or who lack land as henhouses are set up near households' houses and do not require too much space.

The small livestock raising activities mainly focus on:

- Organic feed and herbal medicine for improving chicken health
- Supporting farmers to build hen houses
- Supporting pig farmers for improved pig raising through fencing
- Supporting pig health through vaccination campaigns conducted by DAFO

In Mai and Samphan, after a ToT for project staff and DAFO technical staff, a chicken herbal medicine and feed training was conducted in all 20 target villages. All target villages raise chicken and were very interested in this technique, which allows for improved health outcomes with low inputs (farmers are usually not ready to pay for vaccination for small livestock such as chicken or ducks). The training includes bio-compost techniques using animal dung. In addition to the training, inputs provided for 25 families in 5 villages in Mai district and 15 families in 3 villages in Samphan district for building cages for improved chicken raising (nails, roof, wire mesh etc.). The villagers contributed local materials and their labour. In Gnot Ou, CCL team started with 10 households from two villages on small livestock trainings and provided wire mesh for the medium income families and wire mesh and metal sheets to the poorest families in order to set up the henhouses.

Then, the team coordinated with DAFO to ensure the setting up of vaccination campaigns in the two villages before the rainy season (pest porcine, Ivermectine, streptomycin) and one voluntary vet was trained in order to ensure future vaccination campaign in the villages. Villagers have committed to pay for the second campaign.

### 11) Up-scaling and quality improvement of organic tea under forest cover

Tea production is one of the livelihood options selected in Gnot Ou (no tea in Mai and Samphan) due to the high resilience of the crop to climate hazard and level of incomes generated (see chart 34, Baseline 2016). Indeed, tea cultivation presents environmental (no use of chemical inputs, limits deforestation for expansion of other cash crops such as maize, resilience to climate change) as well as economic (interesting prices in local markets in China) and social advantages (limits women's workload). In Nyot Ou, support was provided 361 households from 9 villages with 498,850 seedling and processing equipment (*camellia sinensis var. sinensis*).

Villages	Beneficiaries			Seedlings provided	Frying pan
	Total	Women	HH		
Tungkualin Noy	87	35	21	24,700	9
Kang	315	159	69	126,700	14
Houayva	170	73	39	90,900	15
Tapeusou	123	61	20	7,600	2
Voupaokang	146	69	45	51,850	2
Namma Gnay	109	51	57	67,000	31
Namma Noy	283	144	62	55,700	33
Sehopene	290	130	46	73,500	32
Palan			2	1,000	
<b>Total</b>	<b>1,523</b>	<b>722</b>	<b>361</b>	<b>487,850</b>	<b>138</b>

In villages where CCL supported tea production for some time, the annual income can reach around 16 Mio. LAK per household. Plants provided under the current project still need to reach maturity before harvesting and data on income are not yet available for all villages. **In 2017, income recorded from planted tea in 6 villages (249 HH) in Gnot Ou reached LAK 2.6 billion (about EUR 286,000) and LAK 1.7 billion (about EUR 185,000) from wild tea (about EUR 1,890/household).**

### ***12) Improving soil fertility and soil erosion control in upland areas***

Improving soil fertility is an important issue in Phongsaly, where diminishing surfaces for rotational plantation of upland rice affect soil erosion. Also, cash crops production, such as corn, and the intensification of production methods, especially the use of herbicides and fertilizers, the soil fertility of the plots is decreasing, as reported by most farmers. There are different experiences with intercropping of other plants that improve soil fertility into rice or maize.

During the implementation of the current project, support provided to expand terrace fields and expand rice fields for food security. This entails the reduction of use of chemicals, improve yields and reduce slash & burn practice. In Samphan this benefited 3 villages (67 households), in Mai 7 villages (61 households) and in Gnot Ou 3 villages (59 households). The support also included supply of tools and equipment. In total about 81 hectares covered producing 26 tons of rice.

#### **Pilot of rice terracing**



The expansion of rice fields also entails a “cash for work” approach involving the 44 poorest households (20 in Samphan and 22 in Mai districts), earning about LAK 60 million (between LAK 0.7 to 2.5 million per household depending on their level of engagement).

### ***13) Galangal production***

Galangal seeds provided for income generation and increase resilience particularly in case of drought. The activity covered 9 villages in Mai (235 households) and 5 villages in Samphan (128 households). About 116,700 seedlings supplied for plantation in 27 hectares (97% survival rate). In 2017 about 2,700 Kg of dry galangal seeds were harvested, generating LAK 111,424,000 (about EUR 12,000).

#### **A 2.3. Establish voucher system to link farmers with input sellers.**

**Evaluator:** *This procurement process increases income opportunities for farmers from the district. Overall, this was a successful activity, which has made villagers more self-sufficient, has improved the sustainability of the activity, and generated income within the districts.*

**Achieved Output:** Voucher system developed and applied (incl. detailed procedures) for main farming procurements describe above.

**Description:** The purpose of the voucher system is to involve farmers actively into the purchase of livelihood inputs provided by the project in order to build their capacity for market/trader analysis and increase their ownership of the livelihood activity. It links farmers directly with input sellers and enables them to access information on prices and transfer costs first hand. Farmers thereby get offers from at least three traders on prices and quality of seedlings and then decide on the supplier in a village meeting. CARE/CCL directly contract the supplier who delivers to farmers based on vouchers they received from the project. By doing so, farmers can directly check the quality upon delivery and send poor seedlings back. For details about the voucher system procedure, refer to the attachment.

#### **A 2.4. Implement capacity building on key aspects of resilience, and improve local disaster resilience**

**Evaluator:** *The project has since scaled back DRR activities and focused on long-term climate change adaptation as per recommendations from the European Union ROM mission.*

**Achieved Output:** Disaster Prevention and Control Committees “revitalized” in two districts, including DRR capacity strengthening and district DRR planning.

**Description:** At provincial and district level CARE supported the establishment of multi-stakeholders Disaster Prevention and Control Committees - DPCC (headed by the vice-Governor), with the mandate to define and coordinate disaster risk reduction (DRR) and management plans. For that purpose, in collaboration with the Provincial Office of Natural Resources and Environment (PONRE) in Phongsaly, CARE developed and conducted a 2-day workshop in Mai in October 2016 and one in Samphan in November 2016 for committee members. The event was attended by 48 participants (16 women), including vice-Governor, Department of Planning and Investment, DONRE, DAFO, LWU, and Department of Transport. The training included:

- Legal framework for DRR in Laos, including International Conventions
- DRR framework for the agriculture sector;
- Orientation on decree and role of DPCC;
- Basics of climate change and trends identified for the Northern Uplands;
- Findings of CVCA research and vulnerabilities in the district;
- Coordination and Emergency Response;
- Development of DRR plans for Mai and Samphan districts, including risk analysis, main areas for response, joint data collection standards and overview of responsibilities per department.

Specifically in relation to climate resilience, a provincial workshop was organized to share findings from the CVCA process at village level, as well as to share the District Disaster Management Plans of Mai and Samphan. The District Governor of Bounneua and the Deputy Director of PONRE chaired the 4-day workshop. Representatives from 7 District Offices of Natural Resource and Environment (DONRE) totalling 17 participants (2 women) participated. Key topics included:

- Climate Vulnerability and Capacity Assessment (findings);
- Piloting the CVCA in other districts;
- Reflection on how to translate CVCA in planning for Community Based Adaptation (CBA);
- Discussion on how to integrate DRR/CCA in district planning.

**A 2.5. Undertake a review of infrastructure, messaging and dissemination channels for short-range weather information, seasonal forecasting and early warning and preparedness in Phongsaly, and support community-based opportunities for improvements**

**Evaluator:** *Weather monitoring stations have been set up in all three districts by Agro-climate Information Systems (ACIS), through additional funding that CARE managed to secure for its Lao program (in collaboration with CARE Vietnam and Cambodia). These monitoring stations collect weather data, which can be transmitted directly to the National Department of Meteorology and Hydrology in Vientiane and be monitored directly at the station. The purpose of the stations is to provide timely weather data and to determine changes in climate over time. (...) CARE worked with the National Agriculture and Forestry Research Institute (NAFRI) to produce a seasonal forecasting agricultural calendar, which was printed in poster form. Villagers received training in using the seasonal calendar. Villagers reported that the calendar was not useful or accurate.*

**Achieved Output:** Agro-climate Information Service piloted with DMH and NAFRI. Funding secured to continue the pilot after current project completion. Village Disaster Preparedness Units established in 30 villages.

**Description:** As stated in the baseline, only about 20% of farmers say weather information is available and easy to understand and less than 10% that it is timely. Access to timely and easily understandable weather information is a priority especially for annual crops, such as rice. More so for upland rice, which needs to be planted at the right moment in order to avoid loss of seeds and have the highest probability for high yield. Farmers state that the start of the rainy season is increasingly difficult to predict and find it difficult to plant at the right time.

During the first year of the current Action a scoping exercise was conducted on existing climate advisory services. The analysis concluded that meteorological departments exist at province level but the quality of data they are able to produce is extremely low. *“The frequency, content and quality of reports varies greatly. Phongsaly, as an extreme example, does not typically report more than once per year due to technological and communication limitations.”* However, due to the geographical proximity to the district of Udom Xay, the weather station there is the closest one for Mai and Samphan districts. Since the second year of implementation, a capacity assessment of the existing system was undertaken (see Coulier Dec 2015) highlighting the need for better communication of weather information from weather stations to villages and districts as well as of the type of information provided (no agricultural advice, only forecast, not updated regularly).

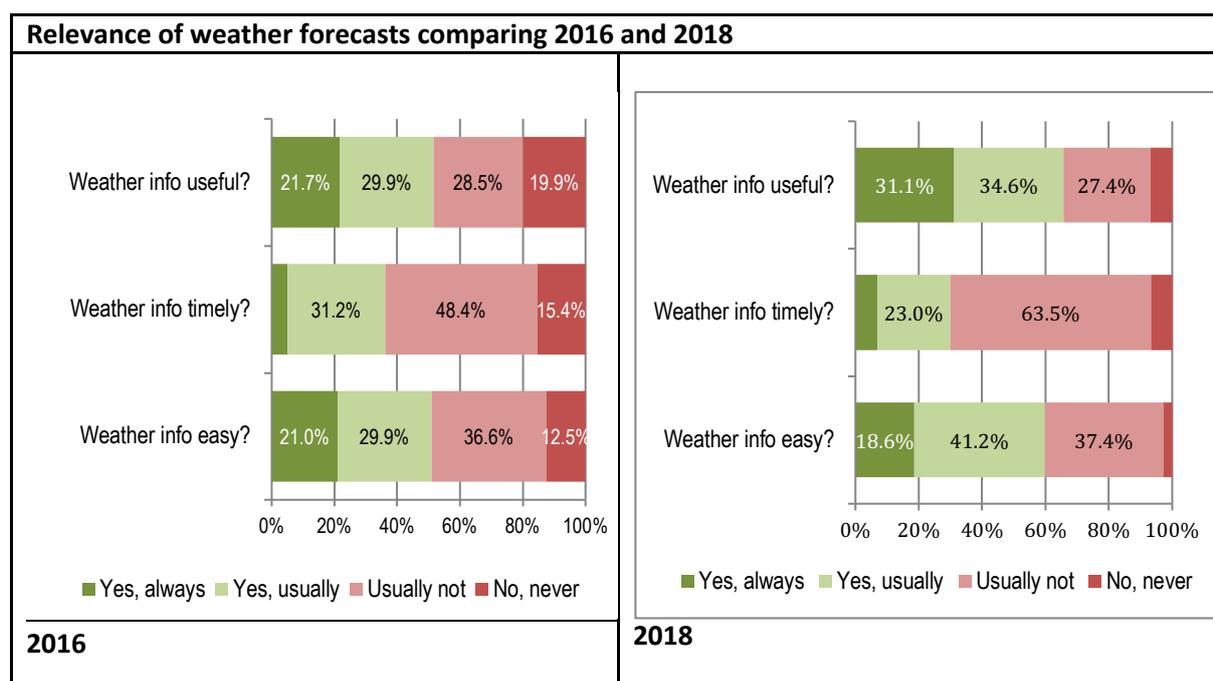
In order to improve access to Agro-Climate Information Services, CARE established a formal partnership with the Department of Hydrology and Meteorology (DMH) and the National Agriculture and Forestry Research Institute (NAFRI) to support on developing a seasonal forecast that includes agricultural advice appropriate to each area. Additional funding was secured from private donors in Denmark<sup>2</sup> (through CARE Denmark) and the Ministry of Foreign Affairs of Luxemburg (through CARE Luxemburg). The piloted agro-climate information service builds on seasonal and short-term weather forecasts produced by DMH, subsequently translated into farming advisories. The advisories are shared and discussed with farmers through Participatory Scenario Planning (PSP) and Dynamic Crop Calendars (DCC) developed by NAFRI based on the forecasts. From each target village, two representatives joined the Farmer Learning Network aimed at improving cross-learning and sharing of weather related information and issues. Information received from DONRE is broadcasted over loudspeaker systems provided by the project in all villages. Speaker systems are also used to announce agricultural planting and harvesting events based on weather forecasts from either DONRE or television.

---

<sup>2</sup> CARE Denmark secured additional funding to work on provision of agro-weather information (ACIS project) through a regional initiative testing the most effective ways of providing agro-climate information to farmers.

In order to assess the accuracy of the forecasts, CARE in collaboration with DMH supported the instalment of automatic rain gauges and automatic weather stations at DONRE offices in three districts. These measure rainfall, wind speed, and temperature. In addition, one desktop and printer were handed over to the DONREs for use in compiling and sharing the data with the national DMH office, for analysis and comparison with the forecasts of the same period.

The Agro-climate Information Service piloted as describe above, generated mixed results so far. On the positive side, it changed farmers planning of the farming calendar and practices. From a rather passive response to unpredictable weather, they increasingly acknowledge the importance of informed decisions (planning) and proactively seek and share information. Unfortunately, on the other hand, the accuracy of localised seasonal weather forecasts and the capacity to produce them are very limited. In addition, more simple and practical content and information channels need to be explored, to make such service become useful in remote upland communities.



In addition to the seasonal agro-climate information service, CARE also supported the target villages in establishing Village Disaster Preparedness Units (VDPU) in all 30 villages (3 districts). Five members (2 women) form the VDPUs. Clear roles and responsibilities defined for VDPUs and each member (e.g. head of VDPU, Community Communication (loudspeaker), secretary, etc.).

## A 2.6. Establish village savings and loan groups in target communities for women in project farming

**Evaluator:** *Women’s village savings and loans groups established in 21 villages well beyond the project’s target of five groups. Women considered this as one of the most important activities promoted by the project. They said they are now able to take small loans at reasonable interest rates and earn money from their savings. Members of VSLG pay 3% monthly on loans (each group is free to decide the interest rate to apply). Previously families had to pay 10% per month on bank loans and even as much as 20% from moneylenders. Loans are typically taken to cover unexpected medical expenses, support children attending school, and in a few cases setting up small village shops. Women are proud to be managing the savings and loans groups. This activity has been extremely successful as a means to empower women. The district vice governor of Mai recognized the value of this activity and requested that the project support LWU to establish village savings and loans groups in all district villages.*

**Achieved Output:** 21 VSLAs functioning independently in three districts, with 410 members (all women), generating about EUR 10,000 savings over 2-years period.

**Description:** The Village Savings and Loans Association (VSLA) function following a model developed by CARE in East Africa with currently more than 11 million members worldwide. It is recognized for its benefits for women’s economic and social empowerment. The main benefit of VSLA is to have small loans available at transparent and affordable conditions where and when needed, as well as to build women’s competence on finance management and agency in the group.

*Some key principles of VSLA groups:*

- Only members can save and borrow
- All financial transactions take place during the meeting, a box with three locks held by different members provides basic security
- Members decide on the maximum share value and number of shares that can be saved in a meeting
- Every member saves minimum one share per meeting
- Each member can only take a loan of maximum 5 times the value of shares she owns
- A group saves for a one year cycle and then shares the benefits and reconstitutes itself
- The recording system is simple, based on member passbooks and memorization.

#### **Village Saving and Loans Associations (members)**



During the reporting period, 21 groups established in 21 villages in the three districts. The support to groups is very time intensive, as it includes six training modules per group during which the constitution and key regulations are set up in a participatory way. After that, the team joins each month’s meeting of the group at least during the first 6-8 months, depending on the strength of the group.

The first groups started in February 2016 and have now reached the end of their first one-year period after which a share out of benefits and reforming of the groups is conducted. After the first year, women assess the savings groups very positively and more members joined in the second cycle:

- Members have learned on finance planning and recording of income and expenditure
- They have saved small amounts of money every month, which is feasible also for poor families. At the end of the year, this leads to amounts of savings and some interest, which are significant enough to be of interest for women (approx. 150.000 kip to 300.000 kip of capital per member).
- The groups provide a safe space for women to talk on other issues – members report “increased solidarity” and are looking forward to the meetings.
- Depending on the trust in the groups, many members were still reluctant to take loans for fear of not being able to pay back or owing to others. As the group’s solidarity progresses,

the savings and loan rates are significantly higher. Loans are mainly for small purchases or emergency expenses (such as schoolbooks, going to the hospital, etc.). Only some members have borrowed for small business, such as chicken raising or buying and selling groceries.

The following tables summarise the status of the VSLAs and their savings by the end of the project:

District	#villages	#members	Saving 1 <sup>st</sup> cycle	Saving 2 <sup>nd</sup> cycle	Loans taken
Mai	9	149	25,854,000 LAK	10,285,000 LAK	6,250,000 Lak
Samphan	7	151	32,748,000 LAK	13,962,000 LAK	7,500,000 LAK
Gnot Ou	5	110	8,940,000 LAK	-	2,000,000 LAK
<b>Total</b>	<b>21</b>	<b>410</b>	<b>67,542,000 LAK</b>	<b>24,244,000 LAK</b>	<b>15,750,000 LAK</b>

The data indicates total self-generated savings over two years period of about EUR 10,000 and loans taken worth about EUR 1,700. Considering the level of poverty in the target villages, these figures indicate significant value and success of VSLAs.

As indicate in the external evaluation, this activity has been extremely successful as a means to empower women for the following reasons:

1. The savings and loans method promoted by CARE is easy for women to understand;
2. Job responsibilities for operating VSLA are spread across a committee involving seven women with distinct roles;
3. Interest rates for loans are 3% per month compared to other methods of borrowing which typically charge 10% per month;
4. Women can earn money from their savings; and
5. The project does not provide seed money that is often the reason for savings and loans schemes to fail in other projects.

The CARE team has also trained the Lao Women's Union counterparts and Gnot Ou team / CCL on the methodology and CCL has started to set up and train 5 groups.

#### **A 2.7. Develop linkages between farmers, and service and input providers in the value chain**

**Evaluator:** *Under another CARE project, a study on cardamom, rattan, and bamboo was conducted in 2016 to assess local and national market potential. The study identified processing cardamom into oil and constructing bamboo and rattan furniture as potential options. Production zones for sustainable management of rattan were set up in two villages. Villagers were trained in bamboo and rattan processing and furniture making. Farmers attended a study tour to a furniture construction cooperative in Vientiane to learn more on developing products from bamboo and rattan.*

**Achieved Output:** Market linkages established including product development (value addition) for the bamboo/rattan industry and Cardamom value chain. Road-side market outlets constructed in three villages.

**Description:** In Mai district, Mokchala roadside market is established as a collection and sales point for local produce, with the improvement of the market itself, the coordination of collection through an assessment of existing NTFPs in the village forest area and the training for farmers to develop the products offered (e.g. brooms instead of broom grass). In Ngot Ou, two roadside markets have been set up in Ban Chompom and Ban Nackong in order to sell organic vegetables produced thanks to home gardens promoted by the project.

To support market linkages, a study on the cardamom, rattan and bamboo potential was conducted in May 2016 in Mai and Samphan, including an assessment of the local market as well as market in Luang Prabang for rattan handicrafts and other products from natural resources existing in Phongsaly (funded under a different project). The study underlines the market potential and specific qualities of local products and recommended further investment in developing products in the cardamom value chain

(e.g. processing into oil) and bamboo and rattan (e.g. furniture production). Based on it, the project supported six farmers from Mai and Samphan to train on rattan furniture production in Gnot Ou and set up protection zones for rattan in two villages. A study visit to a cooperative in Vientiane took place in 2017 for farmers to learn more on the potential for developing products from bamboo and rattan. This is a longer-term effort and CARE will continue to support farmers on product diversification along the value chain under the SUPA project.

Support provided and results achieved within the Cardamom sector are described above in A 2.2.

### Assessment of RESULT 2 based on the achievement of related indicators, as reported in the final evaluation:

**Indicator for ER 2.1:** Increase of 25% in proportion of project farmers who have long-term livelihood planning based on weather information

	Baseline value March 2016	Target (+ 25% of baseline value )	End-line value March 2018	Assessment
Average % of farmers who have livelihood plans for next year and % of farmers who use weather information for planning sometimes or all the time	27.2%	34%	47.4%	Achieved

**Indicator for ER 2.2:** Increase of 25% over baseline of the number of farmers who adopt an adaptation action

	Baseline value March 2016	Target (+ 25% of baseline value )	End-line value March 2018	Assessment
Farmers adopt one or more of the adaptation actions as defined in the baseline				
Stock seeds and fodder	67.8%	84.7%	86.3%	Achieved
Use more intercropping or agroforestry	59.7%	74.6%	78.1%	Achieved
Use weather info for planting	34.1%	42.6%	64.0%	Achieved
Improve animal cages	43.4%	54.2%	62.7%	Achieved
Change farming techniques or seed variety	41.3%	51.6%	64.9%	Achieved
Forest protection rules	43.1%	53.8%	58.1%	Achieved
Plant trees between crops	19.1%	23.9%	39.1%	Achieved
Vaccination for livestock	40.6%	50.7%	66.5%	Achieved

**Indicator for ER 2.3:** Increase of 25% in sharing of workloads and joint decision-making between husband and wife on agricultural purchases, negotiation with traders, and household decisions

	Baseline value March 2016	Target (+ 25% of baseline value )	End-line value March 2018	Assessment
Division of on- and off-farm labor as measured by combined indicator in baseline	18.2%	22.7%	28.2%	Achieved

**Indicator for ER 2.4:** At least five VSLA groups for women established by the project and operational in target villages by year 4

	Baseline value March 2016	Target	End-line value March 2018	Assessment
Five VSLA groups have a constitution, regular meetings, and positive saving, loaning, and payback rates	3 groups started	5 groups	21 groups	Achieved

**EXPECTED RESULT 3:** *Comprehensive documentation informs mainstreaming and an enabling CCA/DRR policy environment for the Northern Uplands*

**A 3.1. Maintain comprehensive process documentation on project activities, using elements of CARE’s participatory monitoring, evaluation, reflection and learning (PMERL) approach**

**Evaluator:** *Project activities are well documented and information requested for the evaluation was supplied in a complete and timely manner. List provided of 20 categories of documents compiled by and available from the project.*

**Achieved Output:** Three policy briefs (gender, agro-climate information services and livelihood resilience); one video on “Climate change in the mountains of Phongsaly”; two Training manuals ( on agriculture promotion techniques in climate change adaptation and climate vulnerability and capacity assessment); several PPTs presented at workshops and seminars; Technical reports (Community-based adaptation, farmers resilience, CVCA analysis; sets of 10 village posters on agriculture techniques; large set of project specific reporting.

**Description:** Processes documented for key adaptation planning activities, such as the CVCA, the adaptation planning process as well as the voucher system. Wherever possible, all tools documented and available for further use. In addition to this, regular reflection exercises in monthly team meetings, partner meetings and annual meetings allowed for reflection on these processes.

Examples of documentation:

- Training Manual (45 pages) officially published/endorsed by MAF (1,000 copies) and widely distributed: Agriculture Promotion Techniques in Climate Change Adaptation.
- Handout on adaptation planning process, documenting the steps taken for developing the village and district level adaptation priorities;
- CVCA documentation: extensive documentation in Lao language (per village) ;
- Technical commodities sheets, summing up technical information on each of the CBA options (incl. marketing implications);
- Village profiles, summing up key village socio-economic data as well as climate related information and action plans developed by the project (see Annex 3 for an example);
- Tools: ranking tool used for adaptation planning in village and district;
- VSLA: Modules in Lao language;
- “Resilience spider” – describes resilience framework in Phongsaly and documents key resilience data from quantitative and subjective perspective (used for project monitoring).
- Policy briefs: (1) Advancing Gender Equality through Climate Change Adaptation; (2) Livelihood Resilience in a Changing Climate; and (3) Agro-Climate Information: tools for livelihood decision-making in the face of climate change.

In addition to the process related tools, a number of project monitoring tools exist (which together form the monitoring system of the project):

- Extensive reports on Base line, Mid-Term and Final Evaluation.
- *The CARE activity tracking tool:* A standardised tool is used that provides quantitative information on all activities conducted and allows to identify and track project status;
- *Outcome Mapping:* During an inception workshop in year one, progress markers (description of observable changes for each actor – DONRE, DAFO, LWU, and farmers) identified. These were monitored twice since, once in a reflection workshop in September and once in a team meeting with partners in January 2016. The reflection shows that while farmer group’s progress markers are starting to change, gender related progress markers are not, therefore, more emphasis on the gender aspect is necessary. One review meeting with government stakeholders conducted to assess changes in their capacities.

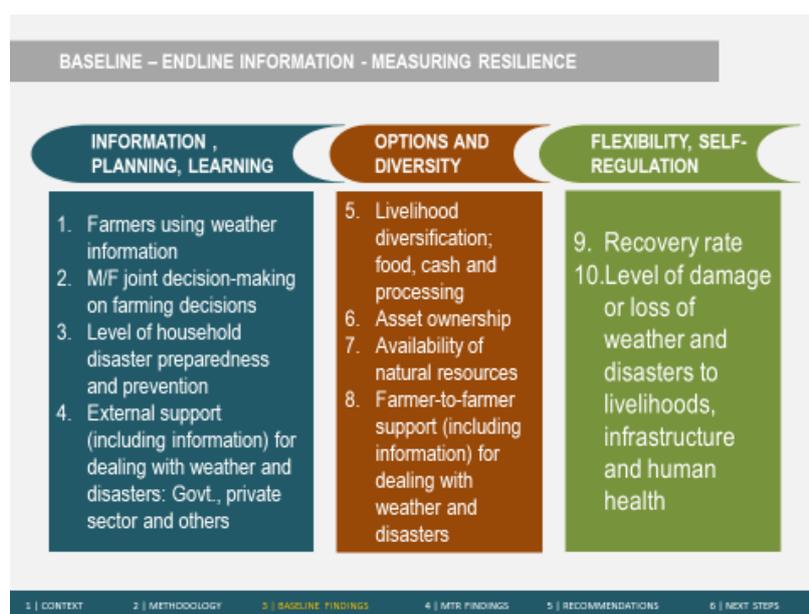
- *Capacity assessment tool of CBOs*: Instead of monitoring progress markers through written journals (which does not seem feasible in the context of Phongsaly), a self-assessment tool has been developed that consolidates progress markers into indicators for discussion and ranking with the groups.
- Data on inputs provided, production, sales values and consumption of each agricultural crop. Recorded by technical field staff on a monthly basis for all villages. A recording sheet for tablets designed to help the regular data collection.
- CBO Monitoring tool: The tool helps farmer groups to self-assess their capacity along four different areas – vision and organisation, agricultural technical knowledge, health and hygiene practices and networks with outside the village. The tool helped to assess and compare groups to know which groups need more tailor made support and brought up interesting discussions around what to improve to make groups more functional. E.g., it resulted in changes in leadership in several groups.
- During partner meetings, the progress on key project indicators was assessed (outcome mapping). These reflect the team’s impression especially on capacity of farmer groups (as opposed to self-assessment of groups above) and of women’s groups.
- VSLA groups monitored on a monthly basis, including their savings, outstanding loans and payback rates.
- Monthly internal project reports, quarterly reports to GoL counterparts, annual reports to the Donor (YR1-3), as well as current Completion Report.

### A 3.2. Mixed method assessments to build evidence base on resilient livelihood models for advocacy and scale.

**Evaluator:** *The baseline explored gender relations about women’s workload control over assets, and access to information. The end-line survey correlated information to determine the achievement of the project indicators. The baseline and end line used mixed methods of assessment to provide evidence of changes in the resilience of beneficiaries’ communities and livelihoods.*

**Achieved Output:** In-depth external base line and end line data and related analysis, reported.

**Description:** The baseline survey completed in February 2016 and the end-line survey completed in February 2018. The baseline collected qualitative and quantitative data against project indicators. It assessed the resilience of communities at the household level and examined factors, such as crop yields, income, commodity prices, and asset ownership. Data on common agricultural practices was assessed -- livestock production, upland rice cultivation, inter-cropping, and cash cropping.



Both assessment focused on the same set of indicators and allow comparison before and after project implementation (despite only 2 years interval). Most relevant data visualized graphically.

### A 3.3. Formative mid-term review and summative final evaluation

The mid-term review was completed in February 2016 together with the baseline study (see summary of findings in YR2 report). The mid-term review assessed the efficiency, effectiveness, and relevance of the project strategies towards achieving the project's objectives. The mid-term review included an assessment and recommendations on how the project is integrating gender considerations into project activities. Field research for the final evaluation was conducted in March 2018. Detailed reports available on request. Key findings and statement from the final external evaluation are reported in respective section throughout the current report.

### A 3.4. Organization of learning opportunities in project districts, among districts in Phongsaly, and with other initiatives in the NUDP program area.

**Evaluator:** *A significant number of trainings have been conducted for government partners, project staff, and villagers. District government counterparts are involved in field activities on an ongoing basis and engage in the process of learning while doing. Government partners responded positively during interviews and on the written questionnaire regarding the training they received from the project. Government staff mentioned that project training has provided them with useful skills and improved their knowledge in a range of areas. Villagers expressed satisfaction with trainings conducted by the project. Women comprised 44% of the participants in village trainings. Topics covered and new knowledge gained from trainings were easily recalled during interview sessions. Skills and understanding acquired through training are being put into practice. Villagers are pleased with the training opportunities provided by the project and are adopting new adaptation practices promoted by the project.*

*Gender training has been an important component of the project. Gender training I conducted in eight villages in Mai and five villages in Ngot Ou. All villages in Samphan participated in gender training I during a previous project. Gender training II completed in five Samphan villages.*

**Achieved Output:** Learning opportunities provided covering about thirty different topics. Regular sharing with Agrisud and CIRAD.

**Description:** Learning opportunities implemented to respond to practical needs and demand by large number of stakeholders. Main learning topics are summarised in table below, as presented in the final evaluation:

Topics	Participants	No. Participants	Women
CVCA process training (TOT)	CARE, GOL, and 3 NPAs	35	15
CVCA data collection	Villagers	1,019	387
Adaptation planning process I (TOT)	GOL and CARE staff	16	5
Adaptation planning process II (TOT)	GOL and CARE staff	21	8
Seed selection	Villagers	233	32
Chicken raising	GOL, CARE, CCL, and villagers	566	421
Contract farming training I (TOT)	GOL, CARE, CCL staff	14	3
Contract farming training II	Villagers	1,370	580
Leadership training for farmer groups	Villagers	20	9
NTPF inventory (TOT)	GOL and CARE staff	10	0
Marketing stakeholder meeting	GOL, CARE staff, and villagers	39	11
Farmer group setup and review rules	Villagers	49	9
VSLA group management	Villagers	48	48
Farmer group management I	Villagers	18	9
Farmer group management II	Villagers	51	25
Bamboo processing training I	GOL, CARE staff, and villagers	16	14
Bamboo processing training II	Villagers	13	10
Study tour rattan processing	GOL, CARE staff, and villagers	17	5
Study tour bamboo processing	Villagers	21	3
Rattan processing training I	Villagers	8	0
Topics	Participants	No. Participants	Women

Rattan processing training II	Villagers	12	0
Cardamom planting exchange lessons learned	Villagers	29	3
Farmer group exchange lessons learned	Villagers	52	20
Exchange lessons learned on paddy expansion in Thailand	CARE staff	5	1
Exchange lessons learned on SALT system in Viet Nam	GOL, CARE staff, and villagers	11	2
Exchange lessons learned on fruit tree planting in Luang Prabang	Villagers	6	3

#### Gender training I

District	Villages	Households	No. Participants	Women
Mai	8	328	328	199
Samphan	10	Data unavailable		
Ngot Ou	5	149	149	69
Total	25	Total undetermined		

#### Gender training II

District	Villages	Households	No. Participants	Women
Mai	-	-	-	-
Samphan	5	231	231	132
Ngot Ou	-	-	-	-
Total	5	231	231	132

### A 3.5. Development and implementation of a project advocacy strategy.

**Evaluator:** *The key project advocacy strategy has been the diversification of livelihoods through promoting climate adaptation strategies that allow for income generation while conserving biodiversity and natural resources. The promotion of cardamom and tea has proven to be an environmentally sustainable adaptation practice, which allows farmers to earn substantial income over time. Making weather information available to farmers so that they can plan and adjust agricultural activities is part of the adaptation strategy. Providing a diverse array of adaptation options allows farmers to select strategies which they feel most comfortable in adopting and which they are able to secure the greatest benefits from their labor.*

**Achieved Output:** Three policy briefs and presentations made at relevant events (particularly Northern Uplands). Local authorities gained significant understanding on climate change, as well as related impact and required adaptation at village, district and provincial level. Recommendations provided on gender mainstreaming in draft Climate Change Law.

**Description:** The key issues identified for advocacy include promotion of gender sensitive community-based adaptation models, with particular lens on addressing still prevailing malnutrition in the Northern Uplands. For that purpose, local authorities were involved in every single stage of the project implementation (including training, workshops, seminars, study tours). This surely led to improved knowledge and skills on how to enforce climate change policy and legal framework at sub-national level. Similarly, representatives from MAF and MONRE at national levels attended at least two visits to projects sites annually, combined with Provincial Steering Committee meetings, where approaches, progress and challenges were adequately presented and discussed. At national level, CARE participated in several events organized to develop the new Climate Change Law (previously intended to combine both climate change and disaster risk management).

Though late in the process, three policy briefs published:

## Advancing Gender Equality through Climate Change Adaptation

Lessons from work with ethnic communities in the Northern Uplands of Lao PDR

Climate change is affecting women and men differently, and has the potential to exacerbate existing gender inequality. Adaptation policies and programs must address existing inequality, and implement strategies that ensure that climate change adaptation benefits both women and men. Experiences from Northern Laos demonstrate the importance of a gender-responsive approach to climate change adaptation, and provide recommendations on how future climate programs can deliver results integrating gender equality in community resilience.

### Key Messages:

1. Climate change adaptation must entail women's empowerment by shifting gender norms, fostering equitable division of labour, and promoting women's voice.
2. A gender-responsive approach requires more than the participation of women: it requires specific strategies to promote gender equitable roles and responsibilities, leading towards joint decision-making and shared benefits in terms of climate resilience.
3. The introduction of adaptive livelihood initiatives should be accompanied by gender analysis and related interventions (e.g. reducing women's workload) to avoid unintended negative outcomes.
4. Women-led savings and loans groups help communities to cope with shocks, while promoting women's leadership and financial literacy.
5. The development of climate and agricultural information systems should consider differences in literacy, language skills and access to information between women and men.

## Livelihood Resilience in a Changing Climate

Lessons from work with ethnic communities in the Northern Uplands of Lao PDR

In three districts of Phongsaly 70% of households stated that climate hazards are negatively affecting their livelihoods. In the Northern Uplands of Lao PDR farmers are being supported to manage the impacts of climate change on their livelihoods, e.g. through increased food sufficiency and income. Experience from this region shows that diversification of livelihoods can contribute towards adaptation to climate change, though diversification can only reach as far as meaningful within farmers' capacity and maximization of profit (cost/benefit analysis). Diversification can comprise the number of crops produced, as well as products that can be derived from their processing (addedvalue). Attention should be paid to managing impact of diversification on women's and men's workloads and ensuring equitable benefits. Farmer-to-farmer networks are also an important strategy to support farmers to manage change.

### Key messages:

1. Diversification of rural livelihoods is supporting climate change adaptation by increasing food sufficiency and income and reducing risks.
2. The resilience of livelihoods is supported by giving farmers the tools and information they need to understand change and plan their livelihoods accordingly.
3. Diversification and livelihood support need to be focused on gender equality and women's empowerment to ensure equitable outcomes for women, men and families.
4. Collective actions of farmers groups support more equitable access to markets and offer opportunities for cross-learning.

# Agro-Climate Information: tools for livelihood decision-making in the face of climate change

Lessons from work with ethnic communities in the Northern Uplands of Lao PDR

In the face climate change, weather and climate information can support communities to manage the impacts of extreme weather. When combined with other timely, locally relevant information (such as market analysis of key crops), the agro-climate information can provide early warning for weather-related disasters, and support rural livelihood decision-making (such as planning the crop calendar). In Phongsaly province in the Northern Uplands of Laos PDR, farmers are experiencing impacts of climate change, which are disrupting the climate and ecosystems they depend on for their livelihoods. In response, rural ethnic minority communities are being supported to access short-term and seasonal (3 monthly) forecasts, agricultural market information, and information about long-term climate change.

## Key Messages:

1. Agro-climate information and forecasts should be supported by local processes that build capacity to understand, interpret and act on this information. These processes must respond to communities' demand for forecasts, allowing them to provide feedback about the relevance and accuracy of forecasts, and ensure that local communities can use the information to plan for their livelihoods.
2. Agro-climate information needs to be shared using multiple media and communication tools to ensure it reaches both women and men with different levels of literacy and language skills.
3. In addition to the broadcast and transmission of climate information, rural livelihoods should be supported by other information, including market trends. There are increasing opportunities to provide these through farmer-to-farmer peer networks and mobile phone technology.
4. Farmers' tailored agro-climate advisories require closer (horizontal) multi-sectoral and related institutional coordination (e.g. agriculture and meteorology), and more efforts are required to improve local accuracy and timely delivery of agro-climate information.

## A 3.6. Contribute to global knowledge base on climate change adaptation.

**Evaluator:** *Not mentioned.*

**Achieved Output:** Joint venture established with regional CARE Offices in Cambodia and Vietnam on piloting Agro-Climate Information Services. Exchange of information within CARE Climate Change and Resilience Information Centre, as well as the recently established CARE Climate Change and Resilience Platform.

**Description:** In terms of global knowledge on climate change, the project focused on CARE's global networks and responding to request for information on regular basis. These include the Climate Change Information Centre and the Climate Change and Resilience Platform. This platform leads and coordinates the integration of climate change and resilience across CARE's development and humanitarian work. The aim is to support and strengthen the ability of CARE to increase resilience and to tackle the causes and consequences of climate change. Particularly the base line findings and the resilience framework developed and adopted for this project encountered high interest. We expect the same when sharing end line, evaluation and current report.

More intensively, formal collaboration was established with CARE in Cambodia and Vietnam through joint implementation of a regional project on agro-climate information services (as well as Raks Thai in Thailand for additional collaboration). Such collaboration, though only focused on a specific component of the current project, allowed for frequent (at least bi-annually) meetings to share and discuss experiences on promoting climate change resilience. This further evolved to cross-visits and learning, e.g. on Sloping Agriculture and Land Technology (SALT), VSLAs, CVCA, Participatory Scenario Planning.

**Assessment of RESULT 3 based on the achievement of related indicators, as reported in the final evaluation:**

**Indicator for ER 3.1:** Five CCA information products (report, films, policy briefs) developed and disseminated to Vientiane-based development stakeholders in northern upland development

Five CCA information products developed and disseminated to Vientiane-based development stakeholders	Target	End-line value March 2018	Assessment
Films: 1. <i>Climate Change Adaptation in the Mountains of Phongsaly</i>	5	1	Achieved
Policy briefs: 1. <i>Advancing Gender Equality through Climate Change Adaptation</i> 2. <i>Agro-Climate Information: Tools for livelihood decision-making in the face of climate change</i> 3. <i>Livelihood Resilience in a Changing Climate</i>		3	
Training manuals: 1. <i>CCA Training Manual: Agriculture Promotion Techniques in Climate Change Adaptation</i>		1	
PowerPoint presentations: 1. <i>Reflecting on change: NU-PCR Baseline assessment and formative review: Initial observations</i> 2. <i>Elevating Farmers' Resilience to Climate Change: Experiences and Learnings from Phongsaly Province</i>		2	
Reports: 1. <i>Promoting Climate Resilience through Community-Based Adaptation Planning</i> 2. <i>Climate Change Adaptation: Technical Support Mission to CARE Laos (2x)</i> 3. <i>Climate Vulnerability and Capacity Analysis (CVCA) at Institutional level</i>		4	
Case Study: 1. <i>A sustainable and eco-friendly livelihood for the upland families of Nhot Ou district, Phongsaly Province</i>		1	
Poster: 1. <i>Managing Increasing Weather Uncertainty</i>		1	

**Indicator for ER 3.2:** Project lessons learned and tools shared with relevant development partners and district and provincial GOL counterparts

Project lessons learned and tools shared with partners and district and provincial counterparts	End-line value March 2018	Assessment
1. Baseline and mid-term reports presented to district and provincial counterparts and shared with partners	1	Achieved
2. CCA tools for climate change adaptation planning presented to district and provincial counterparts	1	
3. Lessons learned presented to district and provincial counterparts during PSC meetings	3	
4. Lessons learned presented at <i>Lao Uplands Forum 2018</i>	1	

**Indicator for ER 3.3:** At least one workshop organized in Phongsaly by CARE, CCL and SAEDA to discuss the application of NU-PCR activities with a broader group of stakeholders by year 4

Workshop organized	End-line value March 2018	Assessment
CVCA findings workshop and discussion on village development planning	1	Achieved

**Indicator for ER 3.4:** At least one advocacy issue for district and one for provincial level identified and action taken to address it

Advocacy issues identified and discussed at provincial and district levels	Target	End-line value March 2018	Assessment
1. Grasshopper infestation - provincial and district levels	2	1	Achieved
2. DRR committees - district level		1	
3. Pesticide regulations in Laos - provincial and district levels		1	
4. Pesticide use trainings - village and district levels		1	
5. Support to government for livestock disease outbreak in non-target villages - provincial and district levels		1	
6. Participatory approaches for Community Based Adaptation - provincial and district levels		1	
7. Gender mainstreaming in Climate Change Law - national levels		1	

## 2.3 Activities and Results

All activities implemented as planned.

**2.4 What is your assessment of the results of the Action so far? Include observations on the performance and the achievement of outputs, outcomes and impact in relation to specific and overall objectives, and whether the Action has had any unforeseen positive or negative results**

**2.5 What has been the outcome on both the final beneficiaries &/or target group (if different) and the situation in the target country or target region which the Action addressed?**

## 1. OVERALL OBJECTIVE

**Indicator 1 Overall Objective:** Target villages demonstrate improved characteristics of a resilient community as per the project resilience measure designed during the NU-PCR baseline. (as stated in the final evaluation)

Target villages demonstrate improved characteristics of resilient communities	Baseline value March 2016	Target (+ 25% of baseline value )	End-line value March 2018	Assessment
Farmer long-term planning	31.3%	39.1%	51.4%	Achieved
M/F HH and public decision-making	34.7%	43.4%	40.6%	Moderate improvement
Household disaster preparedness	51.0%	63.7%	59.2%	Moderate improvement
M/F access to agro-weather information and services	34.2%	42.7%	50.2%	Achieved
Livelihood diversification	56.7%	70.9%	59.1%	Little improvement
M/F access to and control over resources	38.7%	48.4%	49.3%	Achieved
State of natural resources	24.4%	30.5%	30.7%	Achieved
Livelihood recovery rate	36.1%	45.1%	51.6%	Achieved
Division of labor, with shared work loads	18.2%	22.7%	28.2%	Achieved
Women's agency	47.3%	59.1%	70.6%	Achieved

**Indicator 2 Overall Objective:** Agro-climate information system established that enable farmers to adjust their agriculture practices to annual fluctuations of weather. (as stated in the final evaluation)

	Target	End-line value March 2018	Assessment
Farmers in 30 target villages receive and discuss seasonal forecasts	Receive forecasts two times per year	Seasonal planning conducted in villages three times during the agricultural cycle - before planting, mid-cycle, and during harvesting	Achieved

The first overall objective indicator of achievement is comprised of ten dimensions. Seven of the ten individual components of the overall objective indicator 1 have been achieved. The value of the resilience indicator component *M/F HH and public decision-making* indicates moderate improvement. Qualitative analysis derived from men’s and women’s interviews concluded that women have made significant advances in participating in both household and community decision-making. Communication between husbands and wives have meaningfully improved; family and agricultural matters are regularly discussed. Women participate in farmer group meetings and men pay attention to their views and opinions.

The indicator value for *household disaster preparedness* shows moderate improvement. The economic improvement in the lives of the vast majority of target villagers suggests that families are in a much better position to cope with disasters.

The initial value for the *livelihood diversification* indicator implies that many families were already involved in numerous livelihood activities, such as livestock raising, upland rice cultivation, vegetable production in swiddens, NTFP collection, food gathering, hunting, and to a limited extent cardamom, galangal, and tea production. Further diversification is not meaningful. Findings from the evaluation demonstrate that the project has made substantial progress in expanding the diversification of villagers’ livelihoods and that communities have increased their resilience to climate variability and climate change.

**2. SPECIFIC OBJECTIVES (all data refer to external baseline and end line assessment)**

Indicators	Baseline data (Mar 2016)	End line data (Feb 2018)
SO1. 80% of women and men in 30 target villages report increased sharing of work loads between men and women by Y4 ( <i>household</i> )	<p>Women and men reporting the following tasks are done jointly:</p> <ul style="list-style-type: none"> <li>- Buying agricultural inputs: 39.1% F, 44.4% M;</li> <li>- Selling agricultural produce: 41.1% F, 46% M</li> <li>- Negotiating with traders or companies: 22.2% F; 19.1% M</li> <li>- Preparing food: 11.5% F; 21.5% M</li> <li>- Taking care of the children: 25.3%; 34% M</li> <li>- Collecting firewood: 32.9% F; 30.4% M</li> </ul> <p>80.1% women say they want their husband to help more with household and caring tasks. 46.6% men say they want to help their wife more.</p>	<p>Women and men reporting the following tasks are done jointly:</p> <ul style="list-style-type: none"> <li>- Buying agricultural inputs: 54.7% F, 54.6% M;</li> <li>- Selling agricultural produce: 54.7% F, 56.7% M</li> <li>- Negotiating with traders or companies: 35.2% F; 33.5% M</li> <li>- Preparing food: 19.5% F; 39.2% M</li> <li>- Taking care of the children: 36.7% F; 50.5% M</li> <li>- Collecting firewood: 45.7% F; 42.5% M</li> </ul> <p>72.4% women say they want their husband to help more with household and caring tasks. 53.6% men say they want to help their wife more (<i>Thus meaning that more women get help from their husband and men are more willing to help their wife</i>).</p>
SO2. At least 80% of women in 30 target villages report increased access to & control over resources and livelihood options by Y4 ( <i>household</i> )	<p>On average, 41% of women use a list of agricultural inputs, compared to 47.3% of men. 31.4% of women says their household has a loan compared to 34.2% of men. However, most data on asset ownership is at household level.</p>	<p>On average, 53% of women use a list of agricultural inputs, compared to 46.5% of men. 42.2% of women says their household has a loan compared to 35.6% of men.</p>

SO3. 75% increase in mean asset index (productive and financial) by Y4 ( <i>household</i> )	Mean asset index: average for all assets (productive as well as non-productive) is 37.1% - with 30.2% in Samphan; 27.8% in Mai and 52.3% in Ngot Ou.	Mean asset index: average for all assets (productive as well as non-productive) is 42.2% - with 36.7% in Samphan; 34% in Mai and 55.5% in Ngot Ou
SO4. Upland farming systems in 30 target villages have demonstrated to increase rice and crop yields and family income by Y4 ( <i>household</i> )	See RESULTS (in the narrative above)	
SO5. Target villages demonstrate improved characteristics of a disaster-resilient community by Y4 ( <i>community</i> )	Overall climate resilience index, out of 100%: - Long term livelihood planning, using weather info: 31.3% - M/F joint decision making on farming: 35.3% - Household disaster preparedness: 54.4% - External support for dealing with weather and disasters: 38.5% - Livelihood diversification: 56.7% - Asset ownership: 46.2% - Natural resources availability: 24.4% - Farmer group support for dealing with weather and disasters: 40.5% - Recovery rate: 36.1% - Low impact of disasters: 47.5%	Overall climate resilience index, out of 100%: - Long term livelihood planning, using weather info: 51.4% - M/F joint decision making on farming: 34.2% - Household disaster preparedness: 69.8% - External support for dealing with weather and disasters: 57.8% - Livelihood diversification: 59.1% - Asset ownership: 51.1% - Natural resources availability: 30.7% - Farmer group support for dealing with weather and disasters: 59% - Recovery rate: 51.6% - Low impact of disasters: 48.6%
SO6. 50% of villages effectively reached by weather information and seasonal forecasting through district-level systems by Y4 ( <i>government</i> )	Current source of weather information or forecasts: - Government extension workers: 12.3% - TV: 30.6% - Other farmers or family members: 39.5%	Current source of weather information or forecasts: - Government extension workers: 34.5% - TV: 46.9% - Other farmers or family members: 62.2%

**2.6 Please list all materials (and no. of copies) produced during the Action on whatever format (please enclose a copy of each item, except if you have already done so in the past).**

- *Advancing Gender Equality through Climate Change Adaptation: Lessons from work with ethnic communities in the Northern Uplands of Lao PDR.* Policy Brief, CARE International in Lao PDR, February 2018
- *Agro-Climate Information Services (ACIS) for Women and Ethnic Minority farmers in South-East Asia.* Josh Estey, CARE Denmark, 2012
- *Agro-Climate Information: Tools for livelihood decision-making in the face of climate change - Lessons from work with ethnic communities in the Northern Uplands of Lao PDR.* Policy Brief, CARE International in Lao PDR, February 2018
- *Annex C - Logframe - NU-PCR final.* Excel file, CARE International in Lao PDR, date unknown
- *Annex VI Interim Narrative Report: Year 1, March 2014 – March 2015.* CARE International in Lao PDR, date unknown
- *Annex VI Second Interim Narrative Report: Year 2, March 2015 – February 2016.* CARE International in Lao PDR, date unknown
- *Annex VI Third Interim Narrative Report: Year 3, March 2016 – February 2017.* CARE International in Lao PDR, date unknown
- *Baseline - NU-PCR data processing.* Excel file, CARE International in Lao PDR, 2 March 2016
- *CARE Climate Advisory - Quick Scoping Review.* CARE International in Lao PDR, Micah Ingalls, June 2014
- *Case Study: A sustainable and eco-friendly livelihood for the upland families of Nhot Ou district, Phongsaly Province.* Anthony Gueguen, Comité de Coopération avec le Laos, date unknown

- *Climate Change Adaptation: Technical support mission to CARE Laos.* Miguel Coulier, CARE International in Lao PDR, December 2015
- *Climate Vulnerability and Capacity Analysis at Institutional Level.* Chanthaly Chanthavisouk, Hatfield Consultants Mekong, October 2014
- *Comparison of Resilience Indicators (2016 – 2018).* CARE International in Lao PDR, Feb. 2018
- *Elevating Farmers Resilience - NU PCR Baseline report.* Miguel Coulier, CARE International in Lao PDR, April 2016
- *Elevating Farmers' Resilience to Climate Change: Experiences and learnings from Phongsaly province.* PowerPoint presentation, CARE International in Lao PDR, 23 February 2018
- *End-line - NU-PCR data processing.* Excel file, CARE International in Lao PDR, 2 March 2018
- *Lessons learned: Setting up an automatic weather station.* ACIS project - World Agroforestry Centre (ICRAF) and CARE, 27 June 2016
- *List of options selected per village up date 2018.* Excel file, CARE International in Lao PDR, date unknown
- *Livelihood Resilience in a Changing Climate: Lessons from work with ethnic communities in the Northern Uplands of Lao PDR.* Policy Brief, CARE International in Lao PDR, February 2018
- *Managing Increasing Weather Uncertainty.* Poster, CARE International in Lao PDR, 2018
- *MELI framework NU-PCR.* Excel file, CARE International in Lao PDR, July 2016
- *Northern Uplands Promoting Climate Resilience (NU PCR), Laos PDR: Reflecting on change - NU-PCR Baseline assessment and formative review: Initial observations.* PowerPoint presentation, CARE International in Lao PDR, 11 March 2016
- *Reflecting on Change - NU PCR Midterm Report.* Miguel Coulier, CARE International in Lao PDR, April 2016
- *Report Results on Potentiality Survey and Evaluation Production, Processing and Marketing of Rattan and Other Products for Diversifying Income Sources for Poor Farmers in Phongsaly.* Nguyen Viet Kim, CARE International in Lao PDR, April 2016
- *ROM Report: Northern Uplands - Promoting Climate Resilience (NU-PCR).* Jan Douwe Meindertsma, The European Union, 4 May 2016.

**2.7 Please list all contracts (works, supplies, services) above 10.000€ awarded for the implementation of the action during the reporting period, giving for each contract the amount, the award procedure followed and the name of the contractor.**

Baseline study and midterm review report	12.500 USD Open call for service contract proposals, published in newspaper	Contractor: Mr. Miguel Coulier, consultant
4 WD vehicle (13 seaters) 4 WD vehicle (pick up)	USD.37,250.- Purchase order USD.28,300.- Purchase order	Competitive bid-TOYOTA Lao-Thani Competitive bid-LAO TOYOTA Service
Final Evaluation	12,350 EUR Open call for service contract proposals, published in newspaper	Contractor: Mr. Rick Krenzer, consultant

**2.8 Describe if the Action will continue after the support from the European Union has ended. Are there any follow up activities envisaged? What will ensure the sustainability of the Action?**

Funding secured by CARE to continue support on Agro-climate Information Services. All three partners (CARE, CCL and SAEDA) will follow up on activities through other ongoing projects (e.g. SUPA).

## **2.9 Explain how the Action has mainstreamed cross-cutting issues (taken from evaluation)**

### **Women's empowerment**

One of the greatest achievements of the project has been the empowerment of ethnic women in target villages. When asked, 'How has your life changed because of the project?', the first response from women in five of the six villages interviewed was that men are now helping them with both household and agricultural chores. Women said that men are now doing work they had never done in the past, such as taking care of children, cooking, washing dishes, carrying water for the home and gardens, transporting firewood, weeding fields, and harvesting crops. Women stated that prior to the project they seldom discussed anything with their husbands -- women associated together and men associated together. Now husbands and wives are discussing both family and agricultural matters. Women further stated that they no longer fight and argue with their husbands as in the past. One woman amusingly said, 'Now I'm the boss of the family and I make my husband work more than me.'

CARE's gender training has been remarkably successful in changing traditionally held attitudes of women functioning as subordinate to men in the family and community. The effectiveness of the training has resulted in an extraordinary change in men's attitudes and behaviour toward women. It was universally observed in all six villages visited that men recognize that women should be treated with respect and as equals. Women explained that they now speak up during farmer group meetings and that men listen to their opinions. Men said that women sometimes know more about planting, maintaining, and harvesting the crops promoted by the project than they.

Women specifically mentioned that the training they received on operating village savings and loans groups has increase their confidence and provided them with skills in managing money. The project's support for farmer groups and VSLG activities has made women equals in community development.

### **Sustainability**

Farmer groups have been successful in increasing villagers' income from selling commodities collectively. Villagers realize the importance of quality control to ensure the highest price for their products. Farmers have improved their negotiation skills and are no longer being taken advantage of by Chinese and Vietnamese traders. The value of belonging to village farmer groups is apparent to villagers.

Cardamom and tea cultivation are guaranteed to be sustainable. Both crops are resilient to climate variability and have high income potentials. Farmers recognize the value of these crops and will expand their plantations based on available labour. Cardamom is easy to regenerate from vegetative runners. Income from tea sales may encourage families with sufficient labour to purchase tea seedlings to expand their tea plantations. Cardamom and tea ovens will be maintained because villagers recognize the added value in selling these commodities dry.

Galangal flowers for Chinese medicine have a high market value and there is a high demand for galangal roots. Although some farmers have discontinued maintaining galangal to concentrate their time in cardamom production, many farmers said they would continue to maintain their galangal for its income potential.

The pineapple provided by the project is preferred over traditional varieties because it is easier to maintain. Farmers are familiar with propagating pineapple and it may be assumed that farmers will continue pineapple cultivation. Fruit trees require minimal maintenance after being established. Villagers enjoy eating fruit and selling fruit is another potential income source.

The project is piloting rattan with 30 families. Rattan sustainable harvest zones in forests have been established in two villages. The project provided support for 20 farmers to learn bamboo and rattan furniture construction. The SUPA project will continue to provide support for rattan furniture construction. It is too early to assess the sustainability of this activity.

Vegetable gardening has been widely adopted by villagers. Women have learned how to save and store vegetable seeds. Families who were not direct recipients of vegetable seeds have started their own gardens from seeds shared by their neighbours. Some families are using compost and manure to fertilize their gardens. Villagers will continue planting vegetable gardens.

Villagers will maintain project supported paddy rice terraces because: 1. rice grown on terraces has higher yields than upland rice and 2. growing paddy rice requires less labour than upland rice cultivation. Farmers will continue using SRS rice planting techniques prescribed by the project because of significant increases in yield over traditional methods. Farmers with adequate irrigation will convert to the SRS technique because they have observed the higher rice yield potential of SRS. Mushroom production has a high income potential and is particularly suited for families with insufficient labour. The sustainability of mushroom production is dependent on villagers being able to successfully produce mushroom spores or obtain spores from Vietnam. SUPA will continue support for this activity.

Villagers are successfully raising and harvesting fish. Fishponds are being maintained and fish are being fed. Raising fish in fishponds is less time-consuming than fishing in streams and rivers.

Villagers enjoy having fish for special occasions.

Worldwide bee populations are on the decline due to pesticide use, disease, and climate change.

Raising bees in fruit tree orchards significantly improves fruit production. The SUPA project will take over the beekeeping and honey production activity from NU-PCR.

Women identified improved sanitation conditions in their villages by raising pigs in pens away from their homes. The practice of penning pigs is likely to be sustained. The project has failed in combating high rates of livestock mortality.

If left to produce mature seeds, leguminous annual crops, such as soybeans reabsorb a large portion of the atmospheric nitrogen fixed in the soil. Growing soybeans and harvesting mature seed minimally improves soil fertility. Although not necessarily making a large contribution to improving soil fertility, soybeans are a nutritious high-protein crop. Villagers will likely continue growing soybeans for home consumption and sale. Villagers are not practicing soil erosion control.

DONRE sends weather forecasts to villages two or three times per month and more often during severe weather events. Weather forecasts both from information obtained from the district and from Lao television news stations is regularly broadcasted over village loudspeaker systems to coordinate agricultural activities. Weather monitoring systems have been set up in all three districts which transmit real-time weather data to the National Department of Meteorology and Hydrology for analysis of current and long-term weather trends. District DRR committees have been established with respective governments offices having specific roles and responsibilities. It is yet to be determined the operational capacity of DRR committees or the utility of the monitoring stations. Women are pleased and proud to be members of the village savings and loans groups. They are able to take loans at low interest rates and earn a small amount of money from their savings. Women who had not initially joined the savings and loans groups said that they now recognize the benefits of being a member and will join during the next round of membership. Membership in VSLG will likely increase.

Men's attitudes and behaviour toward women have changed dramatically in that they are helping their wives with all types of work. In addition, men now realize that women can make valuable contributions as decision-makers in the family and community. Project staff have helped women to increase their self-esteem and confidence. Both men's and women's attitudinal and behavioural changes are permanent and will most likely evolve into greater empowerment of women.

Climate change adaptation activities implemented in villages are sustainable because villagers can readily see improvements and the potential for improvement in their lives by adopting project interventions. The high degree of acceptance and adoption by villagers of the various project activities validates the project's achievement and sustainability. Villagers will continue to be positively impacted into the future from their participation in project supported interventions. The benefits of the project will continue after the project ends.

## **2.10 How and by whom have the activities been monitored/evaluated? Please summarise the results of the feedback received, including from the beneficiaries.**

The evaluation was conducted by Mr. Rick Krenzer, international consultant based in Lao PDR (Oudomxay province). The main findings of the evaluation are already reported in respective sections throughout the current completion report. The following are additional remarks made in terms of lessons learned, conclusion and recommendations:

### **▪ Lessons learned**

1. The baseline study was conducted in 15 of the 30 target villages. Enumerators did a good job in obtaining quality data. The methodology was sound and captured key aspects of villagers' livelihoods as they relate to climate change adaptation. The household survey questionnaire was 20 pages long. Although the questions from the questionnaire were pertinent in obtaining detailed livelihood information, it required an extensive amount of time to conduct a single interview (approx. 2 hours/interview). Fifty percent of the households in each village were interviewed. Villages are relatively homogenous and a smaller sampling from each household wealth ranking category ('very poor', 'poor', and 'not so poor') would likely render similar results. Future climate change baseline studies can use the same household questionnaire template, but the total number of questions should be scaled back by as much as 50%. A shorter questionnaire with fewer families interviewed would improve the efficiency of data collection and analysis without significantly impairing the results.
2. Soil erosion and the decline in soil fertility is a serious problem throughout the mountains of Laos. Sloping Agricultural Land Technology (SALT) is an effective means to reduce soil erosion and improve soil fertility. The technique has been promoted by development agencies since the 1980s. Typically, farmers have not adapted this technology because it is extremely labour-intensive and the results are not visible until years into the future. It works when projects heavily subsidize labour and inputs. It is seldom sustainable after high costs inputs from a project end. Rather than promoting SALT, farmers would be better served by staff simply encouraging farmers to plant any type of seedling, particularly galangal, cardamom, and tea on the contour of a mountain slope. Some farmers in Phongsaly have experience planting rubber on contours. Farmers can visualize a contour and do not need to use contouring techniques prescribed in SALT (A-frame and water level devices).
3. The voucher system increases the capacities of communities to link with service providers and negotiate prices; it is a cost-effective means of input distribution. To avoid problems of villagers receiving inputs which do not meet the quality standards originally shown by the trader, there should be a clause in the voucher contract stating that villagers have the right to reject a delivery if more than 20% of the merchandise are substandard. Villagers must be informed of this right and project staff should monitor deliveries.
4. To avoid the negative consequences of excessive government staff turnover, the MOU between NGOs and government should have a provision which explicitly states that government staff seconded to a project must work with the project for its entirety regardless of being promoted or other justifications. The only two circumstances under which a counterpart staff may leave a project are for maternity leave or to attend to family emergencies which require reassignment to another province.
5. Although not a climate change adaptation option, CCL responded to villagers' need to be informed of the dangers of herbicide and pesticide use. In Ngot Ou villagers are actively pursuing contract farming of maize, green beans, green peppers, and other vegetables with Chinese entrepreneurs. SAEDA conducted a pesticide awareness training of trainers with CCL and government counterparts who in turn conducted trainings with villagers. For the most part, villagers knew nothing of the hazards of pesticide use before the training. The training was effective in building the understanding of villagers of the dangers of herbicides and pesticides; but farmers are not taking precautions in pesticide application. Farmers said that they understood they should wear a mask when applying pesticides but instead simply stand up-wind from the spray. No farmers owned pesticide protective gear. CCL is coordinating with the

government and Chinese contractors to set up Lao intermediary agencies (Lao middlemen) that oversee the contract arrangements between the Chinese and villagers. In addition to the Chinese providing seeds and chemical inputs to farmers, contract agreements should mandate that the Chinese contractors also provide pesticide protective gear, including goggles, face mask respirators, rubber boots, and rubber gloves. The Lao intermediary agencies and DAFO, under consultation provided by SAEDA, should take responsibility for assuring the quality of pesticide protection gear supplied by the Chinese contractors. The Chinese will recoup the cost of supplying pesticide protective gear to farmers by reducing the purchase price for commodities paid to villagers. This minimal reduction in farmers' earnings would be insignificant to the need for farmers to be protected from the hazards of pesticide application. Poor farmers are not going to invest in pesticide protective gear on their own. It should be made the responsibility of the Chinese contractors to minimize the impact of promoting human health endangering and environmentally destructive monocrop chemical intensive agriculture.

6. Three villages in Ngot Ou were relocated by the government and villagers now live on the opposite side of the Ou River from their agricultural production areas in their former villages. Villagers must cross the river in order to reach their agricultural plots. Villagers are sometimes stranded on the opposite side of the river from their new village for months at a time because of increased river levels. All three villages have requested project assistance in constructing bridges across the river. Provincial and district authorities do not consider building bridges -- for these villagers to provide access to their agricultural fields and to minimize the dangers of crossing the river -- as a priority consideration in their development plans. As with government relocation, services promised usually require projects to provide them. Future CCL projects should include funding for bridge construction.

#### ▪ **Recommendations**

The project should be extended to a second phase to build on the successes of NU-PCR and to further advance CARE's support to rural ethnic women. The continuation of the project would take advantage of existing capacity within CARE and CCL provincial offices. A second phase would allow for scaling up of successful interventions and extending into additional villages.

A second phase of the project could expand from its current 30 villages to include five additional villages in each district (total 15 new villages). Project staff will be able to continue to monitor and upscale activities implemented during the first phase of NU-PCR. Climate change adaptation options promoted under this project can be promoted in new villages more effectively and efficiently from the experience gained during the implementation of NU-PCR.

It should no longer be necessary to supply cardamom, galangal, pineapple, soybean, or vegetable seeds to the initial NU-PCR villages since these crops are easily replicated. Villagers who have participated in these various agriculture activities can become the input suppliers for activities in new villages.

Although the paksong cardamom variety has a lower market price, it is more resilient to extended dry periods. The project should continue to promote both varieties of cardamom. In addition, the project should encourage farmers to continue planting a diverse number of crops and not solely concentrate on cardamom or tea. Focusing labour resources on a single high income crop has the potential for disastrous outcomes if that crop fails due to pest infestations, disease, intolerance to severe weather conditions, or market fluctuations.

Starting tea from seeds is relatively easy. The second phase of the project should investigate the cost-effectiveness of producing tea seedlings over purchasing seedlings. Villagers would be able to increase their self-reliance by learning how to grow tea seedlings and manage tea nurseries.

Fishponds already established can be the source of fingerlings for new fishponds. The activity can be scaled up to train farmers in fingerling production. Fish fingerling production could develop into an income generation source for select fish farmers.

Farmers explained that there are now very few bees; this was attributed to using pesticides and herbicides. Farmers are also aware that bees are important for pollinating flowers to produce fruit. Villagers practicing traditional beekeeping said that it is more difficult to attract bees to their hives and that their production of honey has declined. A second phase of the project can take advantage of farmers' traditional beekeeping knowledge in pursuing the beekeeping activity. Regenerating bee populations in Phongsaly would be an achievement toward combating one consequence of global climate change.

Further support for irrigation systems, rice terracing, and training in SRS should be provided for both current and new villages. A number of project villages have additional potential paddy land which could be developed if irrigation were available. A second phase of the project should secure adequate funding to expand paddy rice terraces with irrigation systems. Support for improved rice production reduces villagers' reliance on upland rice cultivation which is more labour-intensive than paddy rice and highly susceptible to climate variability.

Rattan cultivation along with bamboo and rattan furniture construction are activities which require continued technical and marketing support if they are to become viable income sources for villagers. Some villagers have constructed their own cardamom ovens. Further technical support but not input support could be provided to villages to construct additional cardamom and tea drying ovens. All villagers interviewed requested more ovens but with significant income from these commodities villagers from the current project should be able to pay for the construction.

Farmers explained that they get weather information from weather apps on their children's smart phones. Villagers stated that a Chinese weather app was very accurate for weather conditions in Ngot Ou. Most weather apps are graphical and to a certain extent understandable even if a person is not familiar with the language of the app. The quality of weather information for Laos and its presentation varies considerably by weather app. During a second phase, the project could identify a relatively simple and accurate smart phone weather app and develop training around using it in a non-literate context. During the evaluation, *1 Weather: Widget Forecast Radar* available on Google Play proved to be relatively accurate in Phongsaly; it has a simple graphical interface.

Additional training and awareness building of the dangers of pesticide and herbicide use including proper application is required not only for Ngot Ou villagers involved in contract farming, but also for farmers in Mai and Samphan who use large quantities of herbicides for land clearing, specifically paraquat which is banned in Laos but easily available. The new project could support an advocacy issue around enforcement of Lao laws regarding the sale of illegal herbicides and pesticides.

CARE has developed an approach to reducing livestock mortality which combines capacity building for community-based Village Veterinary Workers (VW) and improving farmers' willingness to pay for vaccinations. This approach has had proven results in projects implemented by CARE in Sayabuli and Sekong. Working with DAFO, CARE should introduce this model in all second phase project villages. The model involves a graduated phase-out subsidy program for livestock vaccination. The phase-out vaccination subsidy allows farmers to witness the efficacy of proper livestock vaccination and as the subsidies are withdrawn villagers willingly accept the cost of further livestock vaccinations.

The second feature of the model involves training one female VW responsible for small livestock and one male VW responsible for large livestock in each village. Project and DAFO staff train village veterinarians in the: vaccination subsidy system; prevention and treatment of livestock disease; and proper use of vaccines and vaccination equipment.

Female VVW in other projects have proven to be both diligent and competent village veterinarians. Establishing women as VVW is another component of CARE's support for rural ethnic women. CARE's village veterinary training and livestock vaccination approach is well documented for replication in project villages.

To restore small livestock populations, a women's small livestock raising group could be established in villages which have no or very few chickens or ducks. It would be an activity specifically geared toward women from very poor households. Poor women would be provided with chickens or ducks and materials for housing. The activity would take the form of a small livestock revolving fund where women would share half their livestock offspring with other families. This activity has been successful in other CARE projects to provide support to the most destitute women.

Women's illiteracy in Lao language was discussed during interview sessions with village women. Women stated that they felt disadvantage by not being able to speak Lao. They said they would be able to communicate better with project staff and more fully participate in negotiating with traders if they knew how to speak Lao. Women mentioned that their children are now learning Lao and that they had no opportunity to attend school while growing up. Women from Akha, Kheu, and Yao villages expressed a keen and sincere interest in learning to speak Lao. Women in Khamu villages said that they know a little Lao and do not encounter communication problems since most of their contacts speak Khamu. Khamu women interviewed were not interested in further learning Lao language. A second phase of the project could pilot Lao literacy training for women who express an interest in learning Lao. *Appendix 7: Proposed Lao literacy training* provides a description and budget for piloting Lao literacy training. World Renew, formerly CRWRC, has conducted adult literacy training in Mai district. World Renew's experience in Lao language training could help guide the development of this activity during a second phase of the project.

To increase the effectiveness of training and to provide follow-up and ongoing monitoring support for activities in villages, CARE could contract directly with SAEDA to provide three experienced SAEDA staff to work in each of the three districts. SAEDA has a pool of 20 qualified personnel currently working in Vientiane, Xiengkhouang, Luang Prabang, and Luang Namtha. SAEDA could provide staff with different expertise to be stationed in one districts and called upon to work in other districts. This staffing arrangement would facilitate increasing the effectiveness of training of trainers and improving technical training support for villagers.

During a second phase, the project will be able to build on the successes of gender mainstreaming to further empower women in their communities. A second phase of the project will provide opportunities for more women and the most disadvantaged to increase their adaptive capacity to deal with climate variability and climate change.

All current interventions -- cardamom and tea production and drying; intercropping galangal, pineapple, and fruit trees; piloting rattan cultivation, bee keeping, soybeans, and mushroom production; vegetable gardening; improved rice production; fishponds; improved livestock health practises; timing agricultural activities around weather forecasts; increasing marketing opportunities; gender training; and support to women's savings and loans groups -- have proven to be successful. A second phase of the project can expand these activities to new villages and enhance them in current villages.

## ▪ Conclusion

CARE and CCL have been working with ethnic communities in the remote highlands of Phongsaly for more than a decade implementing projects in: poverty reduction; livelihood support; water and sanitation; mother and child health care; natural resource management; and women's empowerment. CARE's and CCL's long-term commitment and extensive experience implementing development projects in Phongsaly combined with SAEDA's proven training expertise are the primary reasons for the success of the project. The project has gained considerable momentum in promoting adaption strategies to counter climate variability and promoting women's empowerment.

Project success is highly dependent on implementers' commitment, motivation, competence, and skill. The success of NU-PCR in creating sustainable improvements in villagers' lives can be accredited to the dedication and capacity of the project's managers and field staff. Project managers along with key field staff have worked with previous CARE and CCL projects before working with NU-PCR. Through this experience, they have toned their skills enabling them to effectively institute positive change in villages.

Influencing change requires trust from community members. Villagers are very familiar with project staff and readily named project staff coming to their village. Villagers consistently said that project staff are regularly in their villages and often sleep in their villages. Project staff have developed the trust of communities required to motivate villagers to engage in new activities. One woman in Namloy, Samphan without any provocation stated, "I am so happy with the help I have received from the staff I could hug them."

Project staff's commitment to community development work is evident in the time they spend in the field. They often work beyond office hours -- during evenings, on weekends, and when villagers are available at night in villages. In addition to doing an excellent job working with and inspiring villagers, their endurance to live under difficult conditions in districts indicates their sincere concern for helping the poor. Often the commitment of NGO project staff is less than optimal in Laos. CARE and CCL are fortunate to have such dedicated and capable staff implementing their projects in Phongsaly. The project's success can be directly attributed to the commitment, motivation, competence, and skill of project management and field staff.

### **3. Partners and other Co-operation**

---

#### **3.1 How do you assess the relationship between the formal partners of this Action (i.e. those partners which have signed a partnership statement)? Please provide specific information for each partner organisation.**

The partnership between CARE, SAEDA and CCL has been intensifying every year. This is the first project for CARE to work under one contract with those two partners and by now this experience has allowed further partnerships under other projects. Joint planning, cross visits between field staff and joint implementation of activities allows for sharing of experiences and for staff to learn from the other organisations. It also fosters constructive dialogue and facilitates the smooth implementation of the action. Partner meetings have been held on average once a quarter and these meetings are becoming more fruitful as partners now know how to complement each other and how to conduct joint planning.

#### **3.2 Is the partnership to continue? If so, how?**

Yes, through joint implementation of other projects in the Northern Uplands (e.g. SUPA in Luang Namtha and Phongsaly, jointly CARE/SAEDA/CCL; and SCALING, jointly CARE and CCL with other consortium partners.)

#### **3.3 How would you assess the relationship between your organisation and State authorities in the Action countries? How has this relationship affected the Action?**

At district level, the project continued to have good relationship local authorities including DAFO, DONRE and LWU. This relationship is built on joint planning (quarterly, bi-annual and annual), regular reporting, joint implementation of field activities and a number of trainings for district staff. For example, during the reporting period, technical staff received training on contract farming and rights of communities on land and natural resources management, monitoring tools as well as technical trainings (SRS, poultry raising, mushroom farming, cardamom and tea production, etc.). As mentioned above, staff fluctuations and internal confusion on responsibilities sometimes lead to difficulties in ownership of heads of offices. This is mitigated by the fact that they see most project activities as highly successful and relevant to target areas.

At province level, cooperation is generally good, especially with PoNRE, whose vice head has been involved in the design of trainings (seasonal planning, DRR) and attended all meetings. PAFO staff also regularly participates in activities and planning meetings. POFA and LWU participate in monitoring missions and annual meetings. They sometimes would like to be involved further, but it simply is not cost efficient to have staff who do not directly contribute to the outcomes of the project travel a full day to participate for the purpose of "monitoring" on a regular basis.

The national level is usually only involved in annual reporting and planning meetings as well as on particular questions which arise during implementation (such as the coordination on the grasshopper response). Generally, the implementation has been facilitated by the participation of technical staff.

#### **3.4 Where applicable, describe your relationship with any other organisations involved in implementing the Action:**

- Associate(s) (if any)
- Sub-contractor(s) (if any): No sub-grants have been provided during this year
- Final Beneficiaries and Target groups: Also in those villages where CARE has not worked before, people were extremely positive when the project started working there, most villages were very supportive to the team. Positive relationships at village level are facilitated through CARE staff speaking ethnic languages and adapting to farmers' schedules, e.g. working during evenings and early morning.
  - Other third parties involved (including other donors, other government agencies or local government units, NGOs, etc): Regular sharing with NUDDP in Phongsaly and other INGOs who implement climate change programming (CIRAD). Now planning with DAFOs to coordinate with IFAD project starting in Samphan and Mai. World Renew field staff conducted two learning visits to CARE sites in 2016.

### 3.5 Where applicable, outline any links and synergies you have developed with other actions.

CARE is implementing a project called Women Organised for Rural Development (WORD), funded by Australian Aid, under the Remote Ethnic Women programme. There are synergies in that WORD explores market engagement opportunities, which might also benefit strategies for income diversification under the NU-PCR. For example, both projects look into market opportunities for rattan and bamboo as well as cardamom processing. Furthermore, WORD sets up village and savings groups as well – a joint learning visit to Vietnam, where CARE has implemented VSLA, took place last year.

In collaboration with CARE Denmark, ICRAF and CARE programs in Vietnam and Cambodia, a regional project under CGIAR (CCAFS) has been developed and approved to strengthen collaboration on Agro-Climate Information Services. Such action is meant to strengthen our efforts in relation to Activity 2.5. (Undertake a review of infrastructure, messaging and dissemination channels for short-range weather information, seasonal forecasting and early warning and preparedness in Phongsaly, and support community-based opportunities for improvements).

Furthermore, CARE, CCL, SAEDA together with another partner RDA, recently started a new project on nutrition in Phongsaly and Luang Namtha (SUPA – also funded by the EU). Synergies are that 1) some of the target villages overlap and SUPA can build on previous achievements, 2) lessons from NUPCR on partnerships and ways of coordinating are crucial to setting up this multi-partner, multi-province action, 3) staff is already trained in technical aspects which will also be implemented in SUPA (e.g. VSLA, cardamom, small livestock raising techniques, homegardens).

#### Overall statement from the external evaluation:

The Ministry of Natural Resources and Environment (MONRE) is the primary oversight partner at the national level and the Phongsaly Provincial Natural Resources and Environment office (PONRE) leads provincial coordination of project activities. The focal point for district coordination is District Natural Resources and Environment office (DONRE).

The project had a Provincial Steering Committee (PSC) and District Implementation and Monitoring Committees (DIMC). The PSC worked with the project and districts to plan and implement project activities in partnership and facilitated the project in coordination with other offices associated with project implementation. PSC was chaired by the Provincial Vice-Governor and meets every six months. A representative of CARE Laos' senior management attended PSC meetings. On a day-to-day basis the project was managed by CARE's Provincial Program Coordinator, CCL's Project Coordinator, and CARE's Project Manager.

Table: Government staff turnover

District	DONRE	DAFO	LWU
Mai	2	3	1
Samphan	2	5	3
Ngot Ou	4	1	2
<b>Total</b>	<b>9</b>	<b>8</b>	<b>6</b>

The project has experienced difficulties in seconding and retaining government counterpart staff. One government staff member from the three offices (DONRE, DAFO, and LWU) was responsible for working with the project in each of the three districts. Staff turnover has been excessive for each of the three government departments. The project has invested both time and resources to train counterpart staff in climate change adaptation concepts and activities. Investment in capacity building of government counterparts is lost each time a staff member is changed. Newly assigned government staff must be familiarized and trained to function in the project. Continuous reassigning of government personnel to the project not only results in a financial loss and human resource loss for the project but additionally impedes on the coordination of activities and the effectiveness of time spent in villages by project staff. The lack of continuity in assigning personnel to the project has limited the effectiveness of building government capacity in climate change adaptation.

**3.6 If your organisation has received previous EU grants in view of strengthening the same target group, in how far has this Action been able to build upon/complement the previous one(s)? (List all previous relevant EU grants).**

n/a

**4 Visibility**

How is the visibility of the EU contribution being ensured in the Action?

The following visibility actions for 2016 - 2017 have been identified in the “Communication and Visibility Strategy”:

Year	Mth	Activities	Message	Target audience category	Progress
2016	2	Banners at meetings	Project Steering Committee Meeting – acknowledged EU support	Government at all levels, Decision makers	Done
2016	3	MTR report	Acknowledged EU support	CARE’s partners, INGOs, policy makers and practitioners	Done
2016	3	Weather information equipment	Acknowledged EU support	4x Hydro-met. Station (province and district)	Not done yet, activity delayed
2016	3	District Implementation and Monitoring Committee (quarterly)	Acknowledged EU support	Government at all levels, Decision makers	Done, logo on PPP
2016	5	Project annual report	Acknowledged EU support	CARE’s partners, INGOs, policy makers and practitioners	Done
2016	5	Banners at national women day	Acknowledged EU support, poverty alleviation awareness raising	Beneficiaries, direct and indirect	Not done, no national day activity conducted
2016	6	District Implementation and Monitoring Committee (quarterly)	Acknowledged EU support	Government at all levels, Decision makers	Done – half annual review and planning meeting
2016	7	Banners at tree planting day	Acknowledged EU support, poverty alleviation awareness raising	EU support is mentioned in handouts and presentation	Not done, national day not celebrated.
2016	9	Sign boards at project sites	Acknowledged EU support	Logo on signboard	Done in year 2. One banner at each village.
2016	9	District Implementation and Monitoring Committee (quarterly)	Acknowledged EU support	Government at district and province level	Done
2016	10	Banner at trainings	Acknowledged EU support	Government at district and province level	DRR trainings, land rights trainings, contract farming training
2016	10	T-Shirts/umbrellas IEC for staff	Acknowledged EU support, poverty alleviation awareness raising	Project short and long sleeve T-shirts with logo	T-shirts were printed and distributed to project team and government counterparts.

Year	Mth	Activities	Outcomes	Target audience category	
2017	3	District Implementation and Monitoring Committee (3 monthly/quarterly)	EU support is mentioned in handouts and presentation	Government at all levels, Decision makers	Done
2017	5	Project annual report	Report mentions EU support	CARE's partners, INGOs, policy makers and practitioners	Done
2017	6	District Implementation and Monitoring Committee (quarterly)	EU support is mentioned in handouts and presentation	Government at all levels, Decision makers	Done
2017	6	Project Steering committee meeting (6 monthly)	EU support is mentioned in handouts and presentation	Government at all levels, Decision makers	Done (annually)
2017	8	End line survey report	End line survey report with EU logo	Government, at all levels, decision makers	EU logo shown on presentation of end line findings (PPT)
2017	9	District Implementation and Monitoring Committee (quarterly)	EU support is mentioned in handouts and presentation	Government at all levels, Decision makers	Done
2017	12	District Implementation and Monitoring Committee (quarterly)	EU support is mentioned in handouts and presentation	Government at all levels, Decision makers	Done
2018	3	Final evaluation report	Report mentions EU support	Government, at all levels, decision makers	Done
2018	5	Project final report	Report mentions EU support	CARE's partners, INGOs, policy makers and practitioners	Done

The largest visibility activity during the first year was the visit of the Prince of Denmark, which attracted important media echo both in Denmark and in Laos.

The second large event where the visibility of the European Union's funding was guaranteed was the signing ceremony of the MoU, where a EU representative was invited, a press release written and press coverage widely achieved (Vientiane times, see Attachment below).

The EU logo has been used on banners for all PSC meetings, minimum once a year as well as on PPP for district quarterly meetings.

The project hosted several visits which contributed to visibility of the EU, among them:

- visits by head of the EU Delegation, accompanied by national media and the ambassador of France as well as head of Agence Francaise de Developement (Afd);
- visit by CARE Denmark media and communications team together with a Danish chef – he is famous on Danish TV and hosts a cooking show watched by millions of Danish people. The video and picture material will be used to publicise the project and CARE's work on climate change with support of the EU in the Danish public.

**The European Commission may wish to publicise the results of Actions. Do you have any objection to this report being published on the EuropeAid website? If so, please state your objections here.**

No objections.

Name of the contact person for the Action: .....

Signature: .....

Location: .....

Date report due: .....

Date report sent: .....