

COVID-19 EMERGENCY RESPONSE



Final Report - August 01, 2020 until January 31, 2021

Initiatives for Community Empowerment on Rural Development (ICERD)
Number 14, Alley 54/1, Bui Xuong Trach Street - Khuong Dinh, Thanh
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1. PROJECT OVERVIEW

1.1. Title of Project	COVID-19 EMERGENCY RESPONSE
1.2 Project Area	Lao Cai Province
1.3 Implementing organization	Initiatives for Community Empowerment on Rural Development (ICERD)
1.4 Coordinating and Fund organization	Southeast Asia Regional Initiatives for Community Empowerment (SEARICE)
1.5 Total funding approved	US\$ 9,000
1.6 Duration	August 01, 2020 to January 31, 2021

2. Background

The Southeast Asia Regional Initiatives for Community Empowerment, (hereinafter referred to as SEARICE) acting as the Project Coordinating Unit for the small grant on COVID19 EMERGENCY RESPONSE and the Initiatives for Community Empowerment on Rural Development, hereinafter referred to as ICERD, acting as the Project Partner (together hereinafter referred to as the "Parties") have agreed that the Project Partner will provide certain tasks defined in detail in the attached Contract in support to the enhancing the coping capacity of indigenous and smallholder farming communities whose livelihoods are impeded by COVID-19 in Lao Cai province.

To enable the Project Partner to provide the tasks, SEARICE will pay the Project Partner a total amount not exceeding Nine thousand US dollars which represents SEARICE's maximum financial liability, into the Project Partner's account.

The objective is to support the indigenous and smallholder farming communities whose livelihoods are impeded by COVID-19 in Lao Cai province on: i) Increase access of affected farmers to much needed agricultural inputs; ii) develop appropriate distribution mechanisms for agricultural produce of indigenous and smallholder farming communities; and iii) initiate the process of re-localization of food systems through location-specific approaches of procurement, production and distribution.

3. Activity and Results

3.1. PROJECT SITE

Activities are organized in four communities within Lao Cai Province, about 400 km to the northwest from Hanoi.

They are four villages participating in the project, in which three villages under project support (Ban Xeo and Pa Cheo - Bat Xat district, and Liem Phu - Van Ban district), and other village (Xin Chai) was financial supported by the Sub Department of Crop production and Plant protection (SDCP & PP) as government contribution. Participated farmers are mostly ethnic minorities "smallholders", poor and affected by the Covid-19 epidemic, including groups of (H'mong, Dao, Day, Ha Nhi, Nung, Phu La, Hoa, Thu Lao).

3.2. ACTIVITIES IMPLEMENTED/PLANNED

Summary of achievement

Time implementation of project activities is from August 01, 2020 off until January 31, 2021. Below are some key data of the project implementation.

There were four villages were participating in the project, in which three villages under project support (Ban Xeo and Pa Cheo - Bat Xat district, and Liem Phu - Van Ban district), and other village (Xin Chai) was financial supported by the Sub Department of Crop production and Plant protection (SDCP & PP) as government contribution. Participated farmers are mostly ethnic minorities "smallholders", poor and affected by the Covid-19 epidemic, including groups of (H'mong, Dao, Day, Ha Nhi and Nung).

Total number of farmers selected was 75 from four villages to be directly supported. Participation is given priority to women, and young farmers. In addition to the farmers participating for support, there were 20 representatives of local institutions participating to help organize the project activities. They are from Commune People's Committee, Farmer's Union, Women's Union, Youth Union...

By the end of year 2020, there were 226 households were directly benefit from the distribution of agricultural inputs from project and SDCP&PP, including households who were shared the plant seeds and animal breeds that were multiplying by the first batch of recipients.

Around 1,505 individuals were directly benefit with fresh and nutritious food such as vegetables, eggs, poultry meat and even fish in some households. The indirect beneficiaries would be at least 480 households who got access to affordable, safe and nutritious food from the produce of the direct beneficiaries.

A total of 36 indigenous plant/animal breeds (27 plant varieties and 9 livestock breeds) were collected and distributed to households to multiply and production. This has contributed to promoting conservation and application of genetic resources of plants and animals to serve improving the livelihoods.

Total of 226 households were directly benefit from the distribution of agricultural inputs from project and SDCP&PP, they have also participated in field trainings or learned from alumni about organic farming techniques. Especially learning to involve in the development and application of initiatives. As of December 31, 2020, a total of 217 households applying the initiatives (bio-mats, composting) including the learners through the training courses and farmer to farmer trainings.

The target villages all hold a planning workshop before project implementation, and at the end of the project they organize a community planning for Follow-up activities after project end workshop. Workshop with the participation of farmers and representatives of CPC, mass organizations, they participate to support farmers to implement project activities, as well as to develop the plans for sustainable development after project ending.

A Memorandum of Understanding (MoU) was signed on November 21, 2020 between the canna dry noodles manufacturers with farmers, and SDCP&PP about plan linkage between manufacturers and farmers on production and purchasing of Canna plant products. CPC and SDCP & PP have plans to continue to follow up MoU implementation in 2021. Efforts to be achieved in 2021, canna plant products of farmers Ban Xeo village – Bat Xat district will be supplied under the contract signed by the two sides for about 35 farmers participating in supplying products for the manufactures.

The project is highly supported by the Provincial Department of Agriculture and Rural Development (DARD) and creates favourable conditions for SDCP & PP and CPCs to organize the successful implementation of the project in the community.

The province's "Sustainable development plan of project activities" has been being revising. It will be submitted to DARD the 1st quarter 2021.

Table below summarizes the number of activities and completion status of activities:

Table1. Summarizes the number of activities and completion status of activities	NUMBER OF ACTIVITY		
	Plan	Achieve	Achieve (%)
Activities			
1. Coordination with local key actors (i.e. farmers, local government officials, CSOs like farmer union, women union, etc.) and identification of most affected households			

1.1. Inception meeting/Planning meeting (ICERD and Lao Cai Sub Department of Crop Production and Plant Protection (SDCP & PP)	1	1	100
1.2. Selection of communes, communities, and targeted farmers.	1	1	100
1.3. Opening project (Community planning): One meeting/commune (total 3 meetings)	3	4	133
1.4. Province Evaluation workshop (evaluate project activities and plan for follow-up activities after project end)	1	1	100
2. Conduct farmers training (FFS) on establishing diversified, integrated food farms			
2.1. Training curriculum development	1	1	100
2.2. Conduct FFSs	3	10	333
2.3. Community planning for Follow-up activities after project end (one planning meeting organized for participants from three targeted communes)	1	1	100
2.4. Technical backstopping by SDCP & PP	1	1	100
3. Purchase and distribution of agricultural inputs			
3.1. Identify the needs in the community of agricultural inputs (3	4	133
3.2. Conduct collection of agricultural inputs	1	1	100
3.3. Distribution/Sharing of agricultural inputs (<i>Person doing distribution of agricultural inputs for farmers</i>)	3	4	133
<i>Farmers are distributed agricultural inputs</i>	3	4	133
3.4. Farmers who received plant and animal breeds, they conduct the production, and multiply for sharing	3	4	133
4. Seed multiplication of crops identified by the communities for sharing with other members of the communities: <i>The last rice, corn crop in 2020 will be planted in the end of June, before the project starts (project starts in July), so it is not possible to carry out the seed multiplication, but the seeds be share to the farmers for next year production and seed multiplication. (Number of staff of SDCP&PP)</i>	1	1	100
5. Discussions with farmers & local authorities on reviving local market & distributions systems and strengthening the local food systems	3	3	100
6. Exploration of the use of online platforms and digital technology for marketing and distribution of farm produce	1	1	100
7. Implementation of agreed mechanisms for local procurement, production and distribution			
7.1. A meeting between ICERD and SDCP & PP will be held to build the mechanisms.	1	1	100
7.2. Disseminate & implementation of the agreed mechanisms	1	1	100
8. Linking farmers grow canna plant with local noodle manufacturer to build agreement on selling canna plant products for making conventional dry noodles and nutritious dry noodles.	1	1	100
8.1. Conduct survey to make the list of households producing canna plant producers, with the quantity of the product and production processes	1	1	100
8.2. Organize meeting between Key farmers, SDCP & PP, and food manufacturers	2	2	100
9. Documentation of lessons and insights			
9.1. Project activities are recorded through video and photo documentation	3	3	100

9.2. Submission of progress report (after 3 months)			
9.3.Submission of Narrative Report & Financial Report	1	1	100
10. Sharing of experiences between 2 countries as well as with other SEARICE network partner globally	1	1	100
> There were 10 person people participated in documentation of lessons and insights (6 female and 4 male).	1	1	100
> Made 02 video clips: One Video introduction to the process of making traditional cakes of Tay ethnic minority - Van Ban district, in order to preserve the precious traditional culture of Tay ethnic minority; and one Video introduction to the process of FARMER FIELD SCHOOL (FFS) on establishing "Diversified, Integrated Food farm". This video is to introduce and disseminate the project's activities through the television stations of the district and Lao Cai province	1	1	100

3.2.1. Coordination with local key actors (i.e. farmers, local government officials, CSOs like farmer union, women union, etc.) and identification of most affected households

3.2.1.1. Inception meeting / Planning meeting is organized by the Sub Department of Crop production & Plant Protection (SDCP&PP) of Lao Cai province

Meeting was organized jointly by ICERD and Sub Department of Crop Production and Plant Protection (SDCP & PP) of Lao Cai province.

Participants were 10 person they were (SDCP & PP is comprised of a director, a deputy director, and staff, who were directly involved in organizing project activities; ICERD: vice director and technical adviser and technical staff).

Workshop was to discuss about the implementation of the project in Lao Cai provinces including:

> Agree on the objectives, main actions, places of Implementation, beneficiaries, timelines, expected results, and budget.

> Action plan after this workshop.

Workshop results

> "Criteria for selection sites and participated farmers and requirements outlined for participants to perform" were developed, including:

- Select three communities, smallholder farmers, from remote villages including indigenous communities, are heavily affected by the lockdown in the Covid-19 epidemic conditions. Each commune select 20 farmers for participating in the project activities.

- Women will be the main force participating in the initiative, they will account for over 70% of the participants.

- The participating farmers will attend the field (in field training) and provided with plant seeds and animal breeds for planting.

- Farmers who receive plant seeds and livestock breeds will (multiply) them and share plant seeds and livestock breeds for others in the community to plant for foods and continue to share for others in the community.

- Indigenous varieties including neglected and underutilized plant species present in local landscapes will be collected and cultivated in the ecological sounds.

> After the meeting, SDCP & PP developed "Plan No. 31 / KH-TT & BVTV dated August 26, 2020 on the implementation of the Project "Covid-19 Emergency Response" sent to localities, in which clearly indicates the tasks that need to be coordinated to implement the project with high efficiency. The localities have actively supported, created favorable conditions, and regularly provided two-way information to implement the Project's contents in accordance with the Plan (Table 1).

3.2.1.2. Selection of communes, communities, and targeted farmers.

Based on the "Criteria for selection sites and participation farmers and requirements outlined for participants to perform" SDCP & PP discussed and agreed with the People's Committees of two districts (Van Ban district and Bat Xat district) to select 03 communes to participate in the project, include:

Bat Xat district selected two villages, namely Ban Xeo and Pa Cheo; while Van Ban district chose one village, named Liem Phu.

In addition to the 3 villages under the Project "Covid-19 Emergency Response", SCP & PP Lao Cai has supported another village to participate in the project activities with funding from SDCP & PP and local organizations (People's Committee, Woman Union and Farmer Union). The village name is Xin Chai, Ta Chai commune, Bac Ha district, Lao Cai province.

All four villages (Liem Phu, Ban Xeo, Pa Cheo & Xin Chai) are mostly ethnic minorities, including groups of (H'mong, Dao, Day, Ha Nhi, Nung, Phu La, Hoa, Thu Lao). Each village invited 20 farmers (Xin Chai village only had 15 farmers participating) and 5 other people are representatives of local institutions (CPC, mass organizations ...) (Table 1)

3.2.1.3. Opening project (Community planning):

The community planning was implemented according to plan, both in terms of the number of activities, the number of participants and the compositions, as well as ensuring a good implementation of the outlined content in the proposed project action plan.

Results:

> There were 4 planning meeting were organized each village organized one meeting. In which three meetings are within the Project "Covid-19 Emergency Response" (Ban Xeo, Pa Cheo and Liem Phu); and one is Xin Chai village which is under local support.

> There were 95 participants from four villages participating in the meetings, in which 75 person come from three villages within the Project "Covid-19 Emergency Response": Bat Xat district (Ban Xeo and Pa Cheo), Van Ban district (Liem Phu). The remaining 20 people belong to Xin Chai village, Ta Chai commune, Bac Ha district which is under local support (Table 2).

Participants include all the farmers they have been selected to join the project and representatives of local organizations such as: Leaders of Commune People's Committee, Farmers Union, Women's Union, Youth Union ..

> The participants were informed by SDCP & PP about the purpose of the project, the responsibility requirements for those selected to join the project.

> Disseminate the plan of in field training on "Diversified, integrated food farms", plan to distribute plant seeds and livestock breeds.

> The participants then divided into groups to discuss issues such as:

- Participation commitment and responsibility of the participant

- The work that trainees need to do, especially the multiply of plant seeds, breeding animal breeds, and sharing breeding materials with other farmers as well as guiding them about farming techniques.

> Develop names of cultivars and breeds that farmers are interested in and need the project to allocate to them

> Agree on a plan to work closely with SDCP & PP to collect indigenous seeds for production.

Table 2. Villages participating in the Project						
#	Village name	Commune, District	Total participants	Farmers	Institutions	Funding sources
1	Ban Xeo	Ban Xeo Commune, Bat Xat district	25	20	5	Project
2	Pa Cheo	Pa Cheo Commune, Bat Xat district	25	20	5	Project
3	Liem Phu	Liem Phu Commune, Van Ban district	25	20	5	Project
4	Xin Chai	Ta Chai commune, Bac Ha district.	20	15	5	SDCP&PP and local institutions (People's Committee, Mass organizations (Woman Union, Farmer Union...))
Total			95	75	20	

3.2.1.4. Province Evaluation workshop (evaluate project activities and plan for follow-up activities after project end)

Workshop was organized by the SDCP&PP with 12 person participated, including: SDCP&PP (Director and Vice Director, staff) and from Communes (Leader of CPC and farmers). Workshop was divided in to two parts, they were:

Part one:

Participants discussed, reviewed the process of implementing project activities point out the advantage and disadvantage implementing activities, at the same time draw lessons from experience.

The Results of discussion:

- Project has been successfully conducted.
- Selection of suitable participants (total of 75 farmers involved, in which 51 woman, 24 man (68% Woman). Of these 75 participants, 60 are supported by the project, while the remaining 15 are financially supported by SDCP & PP of Lao Cai to participate in the project activities.
- Participated farmers have been distributed with plant seeds, animal breeds and bio agents, as well as provided field training on "diversified, integrated food farms" and also have been training on the application of alternatives to chemicals. Participated farmers have also implement multiplying plant varieties, livestock breeds that they have been distributed by the project, and shared multiple products to other farmers in the communities (sharing is continuing).

Beneficiaries from the support of the project (by the distribution of agricultural inputs, combined with technical training to use them):

The first batch of direct beneficiaries were 60 households (Ban Xeo commune - Bat Xat District: 19), (Pa Cheo commune - Bat Xat District: 20) and (Liem Phu commune - Van Ban District: 20). See tables 1,2,3).

After harvesting or the first offspring of the poultry and plant seeds, each household from the first batch of recipients gave away seeds/seedlings and poultry to other individual households, thereby before the year ends, at least additional 226 households were directly benefit also (Ban Xeo commune - Bat Xat District: 51), (Pa Cheo commune - Bat Xat District: 62), (Liem Phu commune - Van Ban District: 68), and (Ta Chai commune, Bac Ha district: 45). See tables 4,5,6).

With an average of 5 members per household, around 1,505 $[(75+226) \times 5]$ individuals were directly benefit with fresh and nutritious food such as vegetables, eggs, poultry meat and even fish in some households.

The indirect beneficiaries would be at least 120 households per commune or a total of 480 households who got access to affordable, safe and nutritious food from the produce of the direct beneficiaries.

- Participated farmers have become the key farmers to mobilize, guide and help other farmers in the community to learn and apply and continue to develop initiatives.
- As of December 31, 2020, a total of 217 households applying the initiatives, compared to 145 ones learned through the training courses. Thus, the total number of people applying the initiative is 1.5 times higher than the number of learners through the training courses. The reason was, after being trained, the farmer alumni applied the initiatives in their fields, and at the same time they also shared knowledge, skills with other farmers to understand and follow them apply.

It is estimated that the number of households applying the initiatives will increase by about 3 times by 2021 in the four targeted villages.

- The project is highly supported by the Provincial Department of Agriculture and Rural Development (DARD) and creates favorable conditions for SDCP & PP and CPCs to organize the successful implementation of the project in the community.

Part 2

Sub Department of Crop Production & Plant Protection (SDCP&PP) outlined three main activities to be soon implemented after the end of the project, which are:

- Review, revise the SDCP&PP's "Plan on sustainable development of project" to submit the Department of Agriculture and Rural Development (DARD).
- Continue to coordinate with local authorities and farmers who have participated in this project to pilot model on reviving local market & distributions systems and strengthening the local food systems. Then report the results of this Model to the PPC for expansion plan.
- Support farmer groups involved in applying project initiatives to link up with the Agricultural University in Lao Cai for exploration of the use of online platforms and digital technology for marketing and distribution of farm produce.

3.2.2. Training achievement - Farmers training (field schools) on establishing diversified, integrated food farms



Ly Thi Hanh (left), 50 years old, ethnic minority "Tay", Head of Women's Union of Xin Chai village, Ta Chai commune, Bac Ha district, Lao Cai province.

[I recently created my "Home garden" with a variety of indigenous vegetables. It was very helpful.

We believe that the meal with a variety vegetables would be good for health, increasing disease resistance. I am very happy that, by my sharing varieties/seeds, so far, many organic "Home garden" were initiated in my community.]

Training is to improve the knowledge and skills about agro-ecological farming of farming communities to ensure their own food security and nutrition security.

Farmers training (field schools) on establishing diversified, integrated food farms, including neglected and underutilized species (NUS) of crops (for nutritious food and medicine) and local breeds of chicken & fishes – the idea is for the poor households to optimize their small land as source of safe & nutritious food to make them self-sufficient with their food and nutritional requirements.

3.2.2.1. Training curriculum development

Total 10 person involved (2 ICERD's staff and 4 staff of SDCP&PP, 4 district IPM trainers) FFS training curricular on "diversified, integrated food farms" developed. The Modules differ according to the types of crops, livestock, probiotics, post-harvest preservation, food cooking, market access.

Training topics

Training including 5 main topics they are:

- > Establishing diversified, integrated food farms
- > Home garden / "integration of vegetables-livestock production"
- > Bio-mats & compost
- > Rice-fish integrated cultivation
- > System Rice Intensification (SRI)
- > Practice making simple herbal pesticides as alternatives to chemical pesticides by using available plant materials in garden.

Training approach:

Training is a group-based learning process. Training brings together concepts and methods from agroecology, experiential education and community development. The training process is facilitative and

respects the experience that farmers bring with them. Farmers work in small groups to ensure that each one's ideas are shared.

In the training, there is acceptance of the uniqueness of each participant. The activities are designed to respond to the immediate needs of farmers and are geared towards encouraging creativity and independence. The facilitative/trainers play a crucial role in ensuring that the environment and all resources contribute to the farmers' learning experiences.

Farmers were selected to participate in the project, they were also distributed of agricultural inputs (e.g. organic fertilizers, seeds, chicks or layers, ducks, etc.) to continue farming. Those farmers were also trained in the methods of multiplying and cultivating them.

The training courses and funding sources

There were 5 main training topics divided into 5 training courses, in which basis field training course was "Establishing diversified, integrated food farms", the other four are specific technical trainings, they are:

- Home garden / "integration of vegetables-livestock production"
- Bio-mats & compost
- Rice-fish integrated cultivation
- System Rice Intensification (SRI)

Out of a total of 5 training contents, the project sponsors Farmer Field School (FFS) - "Establishing diversified, integrated food farms". While SDCP & PP provided support for 04 technical trainings, they were: i) Integration of vegetables-livestock production; ii) Bio-mats & compost; iii) Rice-fish integrated cultivation; System Rice Intensification (SRI) (Table 3 below).

Table 3. Training topics, days organized training and funding sources	
Training topics	Sources of fund
i) FFS-Establishing diversified, integrated food farms	Project
ii) Home garden / "integration of vegetables-livestock production"	SDCP&PP
iii) Bio-mats & compost	SDCP&PP
iv) Rice-fish integrated cultivation	SDCP&PP
v) System Rice Intensification (SRI)	SDCP&PP

Number of communities were organized training and funding sources

Total 04 village from 4 communes within 02 districts were selected to participate in the project, and there were 02 fund sources support for training, they were of project and from SDCP&PP Lao Cai province. In which project support for 03 villages (Ban Xeo and Pa Cheo within Bat Xat district, and Liem village within Van Ban district). While SCP & PP Lao Cai has supported for 01 village names Xin Chai village under, Ta Chai commune of Bac Ha district.

Number of households were trained and sources of funding

> Total farmers trained were 145, in which female is 105 male is 40 (72% female).

> Among the total of 145 farmers trained, there are 75 people trained with the funding of the project, and 70 those trained with the funding of SDCP & PP, accounting for 48% of the total person trained is from the budget of SDCP & PP.

Number of households apply initiatives after training

As of December 31, 2020, a total of 217 households applying the initiatives, compared to 145 ones learned through the training courses. Thus, the total number of people applying the initiative is 1.5 times higher than the number of learners through the training courses. The reason was, after being trained, the farmer alumni applied the initiatives in their fields, and at the same time they also shared knowledge, skills with other farmers to understand and follow them apply (Table 4 below).

Among the 5 topics that have been trained, there are 2 topics that have not been applied they are: "Rice-fish integrated cultivation" and "System Rice Intensification (SRI)". For application of those initiatives, it must be started from sowing and transplanting of rice crop. However, the training was only started when rice was already 1 month old, so it is only possible to organize training but cannot apply initiative in the same this crop. The reason for the training at the time the rice was already 1 month old was that the project was just approved and implemented at that time.

The implementation of "Rice-fish integrated cultivation" and "System Rice Intensification (SRI)" will begin in the next rice crop, that is, in early February 2021.

It is estimated that the number of households applying the initiatives will increase by about 3 times by 2021 in the four targeted villages.

Below is the TABLE summarizing the number of people attend training, days organized training and the number of people apply initiatives after the training (Table 4).

Table 4. TRAINING: Number of households trained to improve knowledge & skills about agro-ecological farming, days organized training and number of households apply initiatives after training (up to end of 2020)							
Topics of training & name of village	Training day	Number of training	Total participant	FM	Male	FM (%)	Number households apply initiatives after training
1. Conduct FFS on establishing diversified, integrated food farms (all kind of fund)		4	75	51	24	68	89
<i>Ban Xeo (Project fund)</i>		1	20	13	7	65	25
<i>Pa Cheo (Project fund)</i>		1	20	15	5	75	20
<i>Liem Phu (Project fund)</i>		1	20	10	10	50	27
<i>Ta Chai (Local fund)</i>		1	15	13	2	87	17
2. Bio-mats & compost (Local fund)		4	42	35	7	83	128
<i>Ban Xeo (Local fund)</i>		1	10	8	2	80	32
<i>Pa Cheo (Local fund)</i>		1	10	8	2	80	29
<i>Liem Phu (Local fund)</i>		1	10	9	1	90	30
<i>Ta Chai village (Local fund)</i>		1	12	10	2	83	37
3. Rice-fish integrated cultivation (Local fund)		1	8	3	5	38	
<i>Ban Xeo village (Local fund)</i>		1	8	3	5	38	
4. System Rice Intensification (SRI) (Local fund)		1	20	16	4	80	
<i>Ban Xeo village (Local fund)</i>		1	20	16	4	80	

TOTAL= (1+2+3+4)		10	145	105	40	72	217
Note:							
> Number of households apply initiatives after training they include farmers (alumna) who attended training course are now applying initiatives in their own field, and other farmers in the community who were trained by farmer alumna and now adopting the same technique.							
> Ban Xeo village within Ban Xeo commune, Bat Xat District - Lao Cai province							
> Pa Cheo village within Pa Cheo commune, Bat Xat District - Lao Cai province							
> Liem Phu Village within Liem Phu commune, Van Ban District - Lao Cai province							
> Xin Chai Village within Ta Chai commune, Bac Ha district, Lao Cai province							

Overall assessment of trainings

The training was successfully conducted. Trainees were satisfied with the training. Selection of suitable participants, training meet learner's need. Venue and other logistical arrangements was suitable.

Farmers learned are now applying in their own production, in addition they also help other farmers in the community to learn and follow those initiatives.

Details of the training process and results are presented in each separated report of each training, shown below.

Below are separate reports for each training course.

3.2.2.2. Conduct FFSs

Conduct Farmer Field School (FFS) - "Establishing diversified, integrated food farms"



Picture (left). Training's participants in Ban Xeo village, Bat Xat District – Lao Cai province are sharing their experiences of cultivating native plants.

Picture (right). Training's participants of Pa Cheo village, Bat Xat district are practicing of chicken disease treatment.

Purpose of the Training Course:

The training aims to raise farmers' awareness and motivate them to look into their situation of food security in the context of Covid-19 according to farmer perception and act on transforming their production to sustainability. And to propose diversified and sustainable design models of production farms.

Training curricular including

- > Discussion to evaluate the current status of food security and nutritional security;
- > Discuss the role of nutrition in health;
- > The role of indigenous species, and the role of agro-biodiversity;
- > Survey on the current state of the farm, observe the diversity of plants and animals, the relationship between crop and animal farming within the farm, and suggestion for farm improvement;
- > Share / introduce some experiences about farmers develop eco-agriculture initiatives and promote their application, such as: Home garden / "integration of vegetables-livestock production", application of Bio-mats & compost, Rice-fish integrated cultivation, System Rice Intensification (SRI).
- > Practice of design/propose the diversified and sustainable production farm models. For example, participants designed a model of Home garden/"integration of vegetables-livestock production" through biomats and composting.
- > Distribute agriculture inputs and practice some basic technical manipulation, such as: "multiply", livestock care, for example, vaccination of chickens...
- > Plan for further training on chemical alternatives, and a plan for the application of initiatives at home.
- > In addition, students were practicing of making some herbal pesticides for controlling insect pests attack the plants.



Pictures. Participants of Field Training at Pa Cheo village, Bat Xat district are practicing of making herbal pesticides.

It is a mixture of chili, garlic, ginger, wine, then soaked. Before spraying, the mixture is filtered and mixed in sprayer with water and a little detergent liquid then sprayed to insect pests of plants.

Location, participant, and sources of funds for training

- > Training was held at a participant's house, the family farm was learning materials, where the discussion was the the yard.
- > There were 4 training courses held at 4 villages (Ban Xeo, Pa Cheo, Liem Phu and Xin Chai Village) of which 3 villages (Ban Xeo, Pa Cheo, Liem Phu) was "financial suport" provided by project and remaining one village (Xin Chai) was financial support provided by SDCP&PP.

Total farmers attending training were 75, in which woman 51 (68% woman) and 24 man (table 5), (Picture).

Table 5. TRAINING: Number of households attend FFS -"Establishing diversified, integrated food farms"; days organized training; and number of households apply initiatives after training (up to end of 2020) (all kind of fund)							
Name of villages, and sources of funds for training	Training day	Number of training	Total participant	FM	Male	FM (%)	Number households apply initiatives after training
		4	75	51	24	68	89
<i>Ban Xeo (Project fund)</i>		1	20	13	7	65	25
<i>Pa Cheo (Project fund)</i>		1	20	15	5	75	20
<i>Liem Phu (Project fund)</i>		1	20	10	10	50	27
<i>Ta Chai (Local fund)</i>		1	15	13	2	87	17
<i>Note:</i>							
<i>> Number of households apply initiatives after training they include farmers (alumna) who attended training course are now applying initiatives in their own field, and other farmers in the community who were trained by farmer alumna and now adopting the same technique.</i>							
<i>> Ban Xeo village within Ban Xeo commune, Bat Xat District - Lao Cai province</i>							
<i>> Pa Cheo village within Pa Cheo commune, Bat Xat District - Lao Cai province</i>							
<i>> Liem Phu Village within Liem Phu commune, Van Ban District - Lao Cai province</i>							
<i>> Xin Chai Village within Ta Chai commune, Bac Ha district, Lao Cai province</i>							

Overall assessment

The training was successfully conducted. Trainees were satisfied with the training. Selection of suitable participants, training meet learner's need. Venue and other logistical arrangements was suitable. Especially, the participants has proposed plan for further training on chemical alternatives, and a plan for the application of initiatives at home.

Farmers learned from FFS are now applying in their own production, in addition they also help other farmers in the community to learn and follow those initiatives.

Training farmer on apply bio-mats and compost in animal husbandry

In all targeted villages (Ban Xeo, Pa Cheo, Liem Phu, Ta Chai) over 80% of farms are raising pigs and chickens to serve the nutritional needs of the family and to generate income. However, livestock is usually kept nearby the house and cause pollution. Almost of farms livestock by-products and manure is not used to apply the crop, instead they are discharged into the environment. Farmers tend to increasingly depend on chemical fertilizers for their crops.

At the FFS "establishing diversified, integrated food farms" participants were introduced to the effectiveness of the apply bio-mats and compost in animal husbandry, and farmers' experience in implementing successful application elsewhere. This attracted the interest of the trainees and they

required provided training. Responding to the farmers' need, SDCP & PP Lao Cai sent staff to organize this training, with financial and human support from SDCP & PP and commune organizations.

Bio-mats are formed by a mixture of fermented biological agents with biomass and mulch from the floor of the livestock's stables. This accelerates manure decomposition, and deodorize foul-smelling and poisonous gas from the shed, livestock is healthier. The residues of bio-mats is ultimately used to make compost as alternative to chemical fertilizer.

There were 4 training courses held at 4 villages (Ban Xeo, Pa Cheo, Liem Phu and Xin Chai Village) of which 3 villages (Ban Xeo, Pa Cheo, Liem Phu) under project and remaining one village (Xin Chai) belong to SDCP&PP support.

Expense for training of all four villages by SDCP & PP's budget.

Farmers participating in this training included some of the farmers who had been attended in the FFS "establishing diversified, integrated food farms" and other farmers in the community in which they wished to learn the technique.

Each training is held in one household who is one of the participants in the training. The training takes place within a day, including 2 topics to learn, which are bio-mats and compost applications.

Total farmers attending training were 42, in which woman 35 (83% woman) and 7 man. Detail in table 6, Picture.

Table 6. Training: Number of farmer trained on application of Bio-mats & compost, and number households apply those initiatives after training							
Village	Training day	Number of activity	Total participant	FM	Male	FM (%)	Number households apply bio-mats & compost after training
<i>Ban Xeo</i>		1	10	8	2	80	32
<i>Pa Cheo</i>		1	10	8	2	80	29
<i>Liem Phu</i>		1	10	9	1	90	30
<i>Ta Chai</i>		1	12	10	2	83	37
TOTAL		4	42	35	7	83	128
<p><i>Note:</i></p> <ul style="list-style-type: none"> > Number of households apply bio-mats & compost after training, they include farmers (alumna) who attended training course are now applying bio-mats & compost in their own production, and other farmers in the communities who were trained by farmer alumna and now adopting the same technique. > Ban Xeo village within Ban Xeo commune, Bat Xat District - Lao Cai province > Pa Cheo village within Pa Cheo commune, Bat Xat District - Lao Cai province > Liem Phu Village within Liem Phu commune, Van Ban District - Lao Cai province > Xin Chai Village within Ta Chai commune, Bac Ha district, Lao Cai province 							

Training consists of 3 steps, which are:

- i) Introduce and guide the steps in bio-mats and composting process;
- ii) After the introduction of technical process, the trainees conducted two experimental arrangement of bio-mats in the chicken's stable, and practiced making compost in the family's garden.
- iii) Step 3: Participants make a plan for follow-up training activities, including: Follow up and evaluating experimental results and draw lessons. This step carried out after training. Participants agreed on a schedule of meetings organized during the composting process and the bio-mats application.

For this step, the village Women's Union help and facilitate the trainees together to learn and share.



Picture. After being trained in the FFS "establishing diversified, integrated food farms", and training on application of Bio-mats & compost, group of FFS's alumna of Ta Chai village, Bac Ha district - Lao Cai province together practiced making compost.

Left photo: Chopping plant leaves for composting. Right photo: Mixing of compost ingredients, which include animal manure and chopped leaves..., along with bio agent to enhance its fast decomposition process.



Group of FFS's alumna of Ta Chai village also practiced applying bio-mats in chicken farming.

Summary of benefits are as follows:

- Provides dry and warmth living condition in the winter
- Allows for natural behaviors such as rooting
- Helps prevent the outbreak of disease
- Improves immunity system
- Helps control fly populations
- Helps decrease odor
- Minimizes cleaning
- Reduces need for disinfection
- Effectively controls urine and manure
- Reduces water consumption for cleaning
- Low labor
- Low cost
- Low tech

Picture. Floor of the Chicken's stables is mulched with bio-mats.

The training was successfully conducted. Trainees were satisfied with the training. Selection of suitable participants, training meet learner's need. Venue and other logistical arrangements was suitable.

Trainees have also done well the third step of the training process, which was follow up and evaluating experimental results and draw lessons.

Farmers learned are now applying in their own production, in addition they also help other farmers in the community to learn and follow those initiatives. So far, each FFS participant trained for about 02 other farmers, increasing the total number of people applying bio-mats and composting to 128 people in 4 villages (Ban Xeo, Pa Cheo, Liem Phu and Xin Chai) (as of December 2020) (table 6, *Picture*).

Training farmers on Integrated Rice-Fish cultivation



Picture. Field applying the initiative "rice-fish integrated farming" by farmers in Bac Giang province

At the FFS "establishing diversified, integrated food farms" participants were introduced to the effectiveness of the "Integrated Rice-Fish cultivation", and farmers' experience in implementing successful application elsewhere.

This attracted the interest of the trainees and they required provided training. Responding to the farmers' need, SDCP & PP Lao Cai sent staff to organize this training, with financial and human support from SDCP & PP and commune organizations.

Farmers participating in training included some of the farmers who had been attended in the FFS "establishing diversified, integrated food farms" and other farmers in the community in which they wished to learn the technique.

Training on Integrated Rice-Fish cultivation was conducted at Ban Xeo village as required of farmers of this village. Training was organized in one day, the budget for training was covered by SDCP&PP of Lao Cai.

Participants attend training were 8, in which 3 woman and 5 man (38% woman) (table 7).

	Number of training	Total participant	FM	Male	FM (%)
Total	1	8	3	5	38

Training contents included:

> Introduction and discussion on rice-fish ecosystem, ecological function of organisms.

- > Introducing other farmers' experiences with successful application of rice-fish integrated cultivation.
- > Conducted field observation and collected specimens for designing "Aquarium".
- > Life and reproduction, life cycle, sex differentiation, eating behavior, shedding, fish habitat.
- > Techniques for farming in rice-fish cultivation include: crop cycle, farm design, pond / farm improvement, transportation, fish stocking, management environment, fish harvest.
- > Some common diseases of fish.
- > Environmental management (field water).

For application of Integrated Rice-Fish cultivation, it must be started from sowing and transplanting of rice crop. However, the training was only started when rice was already 1 month old, so it is only possible to organize training but cannot apply initiative in the same this crop. The reason for the training at the time the rice was already 1 month old was that the project was just approved and implemented at that time.

The implementation of Integrated Rice-Fish cultivation will begin in the next rice crop, that is, in early February 2021.

The training was successfully conducted. Trainees were satisfied with the training. Selection of suitable participants, training meet learner's need. Venue and other logistical arrangements was suitable.

Below are the results of developing and applying the initiative "rice-fish integrated farming" by farmers in Bac Giang province

Table 8. Yield and Economic data of Rice-Fish system in 2016 in Ngoc Son and Xuan An - Bac Giang province compared to rice only

	Ngoc Son			Xuan An		
	Rice only (before program)	Rice from "Rice-fish-duck"	Rice-fish-duck	Rice only (before program)	Rice from "rice-fish"	Rice-fish
Rice Yields (kg ha ⁻¹)	10,149	8,200		10,000	9,750	
Revenues (US\$ ha ⁻¹)	2,459	1,987	8,239	2,423	2,362	6,091
Production costs (US\$ ha ⁻¹)	2,173	460	2,129	2,284	1,834	2,286
Gross margin (US\$ ha ⁻¹)	286	1527	6,110	139	528	3,806

Nutrient cycling was enhanced through the recycling of residues and organic wastes in compost to be applied to rice fields thereby reducing fertilizer use by 76%.

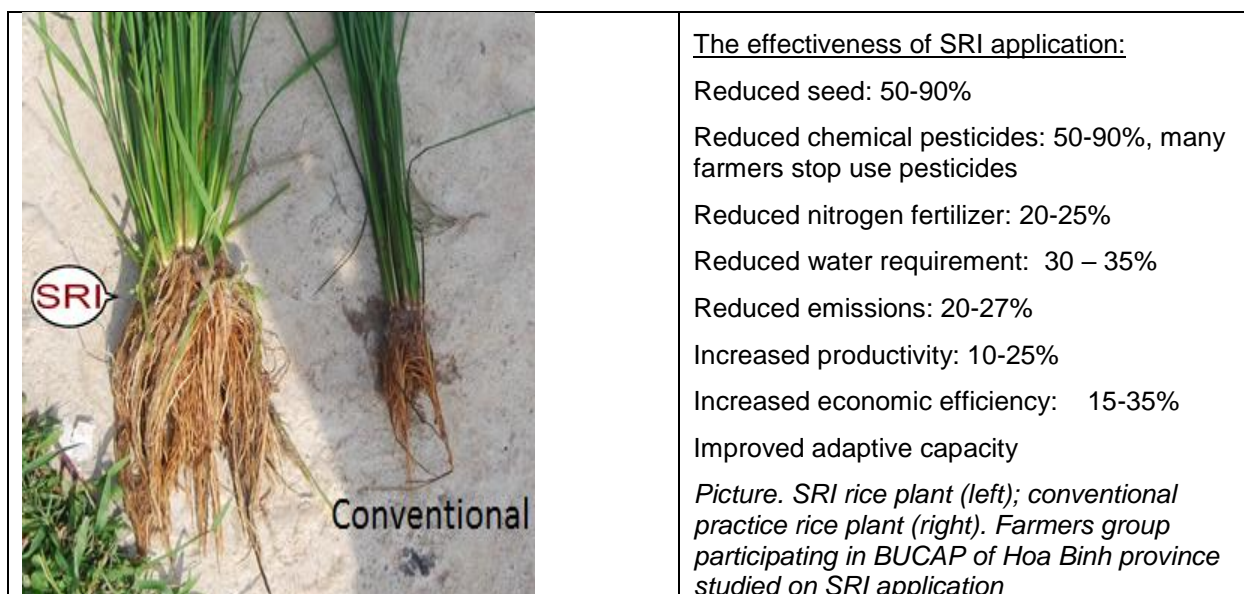
Rice seeds use was also reduced by 53% by improved sowing and transplanting according SRI techniques.

Application of the Bio-agent *Metharizume anisopliae* (entomo-pathogen) was used to control brown plant hopper and replace pesticides. This minimized outbreak of brown plant hopper caused by overuse of chemical pesticides.

Pesticides were reduced in rice fields by about 78.6% in Xuan An and 74.6% in Ngoc Son - Bac Giang province and even by 100% in rice-duck-fish plots.

Straw burning is not practiced anymore in order to reduce environmental pollution and to recycle organic matter in soils. In no-tilled Rice-fish-duck fields compost and rice straw are crucial to improve the trophic relationships between insects, ducks and fish. Organic material stimulates insect communities which are basic elements of fish and ducks diet along with weeds. Ducks droppings represent an additional nutrient source for rice and also stimulates the phytoplankton growth which complements the fish diet.

Training farmers on System Rice Intensification (SRI)



At the FFS "establishing diversified, integrated food farms" participants were introduced to the effectiveness of the apply System Rice Intensification (SRI), and farmers' experience in implementing successful application elsewhere. This attracted the interest of the trainees and they required provided training. Responding to the farmers' need, SDCP & PP Lao Cai sent staff to organize this training, with financial and human support from SDCP & PP and commune organizations.

Farmers participating in this training included some of the farmers who had been attended in the FFS "establishing diversified, integrated food farms" and other farmers in the community in which they wished to learn the technique.

There was one training course held for farmers of Ban Xeo village, Ban Xeo commune, Bat Xat District, under targeted project site.

Expense for training by SDCP & PP's budget.

Total farmers attending training were 20, in which woman 16 (80% woman) and 4 mane. Detail in table 9

	Number of training	Total participant	FM	Male	FM (%)
Total	1	20	16	4	80

For application of SRI initiative, it must be started from sowing and transplanting of rice crop. However, the training was only started when rice was already 1 month old, so it is only possible to organize training but cannot apply initiative in the same this crop. The reason for the training at the time the rice was already 1 month old was that the project was just approved and implemented at that time.

The implementation of SRI will begin in the next rice crop, that is, in early February 2021.

The training contents including:

- > Introduction of rice growth through stages, factors impact and measures to manage rice health.
- > Introducing other farmers' experiences with successful application of SRI.
- > Rice field agro-ecosystem: introduction about the components in the ecosystem, factors affecting the ecosystem, and friendly solutions to improve the health of the ecosystem.

> Participants practice surveying rice field ecology and discussing rice health management.

> Introduction of technical measures of SRI in detail

> Participants discuss to develop a plan for apply SRI for their own field. The plan apply SRI was agreed among the participants includes: Each household will choose 01 field to apply SRI technique, carefully observe the growth stages of rice, compare the SRI field with the rice field without SRI application. When harvesting rice, it is necessary to measure rice yield in SRI and non-SRI fields and compare differences in yield and economic efficiency. Each household will invite at least 5 other farmers to visit the SRI field and share with them the SRI technique.

The training was successfully conducted. Trainees were satisfied with the training. Selection of suitable participants, training meet learner's need. Venue and other logistical arrangements was suitable.

3.2.3. Purchase and distribution of agricultural inputs to farmers who lost their income and need assistance to continue farming



Picture. Participants of Field training "Establishing diversified, integrated food farms" of Pa Cheo village, Bat Xat district, Lao Cai province were distributed with agricultural inputs and learned about farming techniques.

Relating to the conducting of purchase and distribution of agricultural inputs, there were 3 steps carried out as follows:

- The first step is staff of SDCP & PP collaborated with the commune People's Committees to identify the needs in the community of agricultural inputs. This work was conducted at the community planning meeting. A lists of plant varieties and animal breeds were prepared by SDCP & PP staff.
- The 2nd step: Staff of SDCP&PP collaborated with the farmers to collect/purchase agriculture inputs (e.g. bio agents, seeds, chicks or layers, ducks, etc.).

- The 3rd step: Staff of SDCP&PP collaborated with staff of commune People's Committees distribute the farmers with the agriculture inputs.

As committed, farmers who directly received plant seeds and animal breeds from the project, they multiplied and shared seeds/breeds with other farmers in the community for production and continued sharing.

The first batch of direct beneficiaries were 75 households (Ban Xeo - Bat Xat District: 20), (Pa Cheo - Bat Xat District: 20) and (Liem Phu - Van Ban District: 20), and (Xin Chai – Bac Ha District: 15). (See tables 10, 10a, 10b, 10c).

After harvesting or the first offspring of the poultry and plant seeds, each household from the first batch of recipients gave away seeds/seedlings and poultry to other individual households, thereby before the year ends, additional 226 households were directly benefit also (Ban Xeo commune - Bat Xat District: 51), (Pa Cheo commune - Bat Xat District: 62), (Liem Phu commune - Van Ban District: 68), and (Ta Chai commune, Bac Ha district: 45). (Tables 10, 10d, 10e, 10f).

With an average of 5 members per household, around 1,505 [(75+226) x 5] individuals were directly benefit with fresh and nutritious food such as vegetables, eggs, poultry meat and even fish in some households.

The indirect beneficiaries would be at least 120 households per commune or a total of 480 households who got access to affordable, safe and nutritious food from the produce of the direct beneficiaries.

A total of 36 indigenous plant/animal breeds (27 plant varieties and 9 livestock breeds) were collected and distributed to households (Table 11)

In addition, there 02 types of Bio-agents were distributed to households for making bio-mats and compost.

Table 10. Purchase and distribution of agriculture inputs, sources of funding and number of beneficiaries

	The project funding for purchase agricultural inputs	SDCP & PP funding for purchase agricultural inputs	Total
i. Number of village was distributed agriculture inputs	3	1	4
ii. 1st batch of direct beneficiaries (Number of people is distributed agricultural inputs)	60	15	75
iii. After harvesting or the first offspring of the poultry and plant seeds, each household from the first batch of recipients gave away seeds/seedlings and poultry to other individual households (number of beneficiaries)	181	45	226
iv. Number of individuals were directly benefit with fresh and nutritious food such as vegetables, eggs, poultry meat... (average of 5 members per household)	1,205	300	1,505

Table 10a. List of 1st batch of direct beneficiaries

Location: Ban Xeo Commune, Bat Xat District, Lao Cai Province

No	Name	Seeds/seedlings and poultry, bio-agents to be delivered										
		Chicken (number of breeders)	Fish (Kg of fingerling)	Rice (Kg of seed)	Jams (Kg of tuber)	Khoai mỡ/củ ngà/củ cọc/Potatos (Kg of tuber)	Sweet Potatos (Kg of tuber)	Taro (Kg tuber)	Canna (Kg of tuber)	Rau bò khai (Number of cutting)	Bio- agent (Kg)	Vegetable seeds of all kinds
1	Tao Văn Lò			3	5	5		5	5	15	4	2
2	Tao Văn Nháu			3	5	5		5	5	15	4	2
3	Hoàng Văn Liu			3		5	5	5	5		4	2
4	Lù Thị Hường	4		3		5	5	5	5		4	2
5	Tần Lão San	4		3	5		5	5	5		4	2
6	Lý Diu Vây	4		3	5	5	5	5		15	4	2
7	Tao Văn Ly	4		3	5		5	5	5		4	2
8	Hoàng Thị Chi			3	5			5	5	15	4	2
9	Tống Thị Lý			3	5		5	5		15	4	2
10	Hồ Thị Cải			3	5	5	5	5		15	4	2
11	Tao Văn Din	4		3		5	5	5	5		4	2
12	Vàng Thị Lý	4		3		5	5	5	5		4	2
13	Lò Văn Sinh	4		3	5	5	5	5		15	4	2
14	Hoàng Tả Mấy	4		3	5		5	5		15	4	2
15	Lý Văn Sử	4		3		5		5	5	15	4	2

No	Name	Seeds/seedlings and poultry, bio-agents to be delivered										
		Chicken (number of breeders)	Fish (Kg of fingerling)	Rice (Kg of seed)	Jams (Kg of tuber)	Khoai mỡ/củ ngà/củ cộc/Potatos (Kg of tuber)	Sweet Potatos (Kg of tuber)	Taro (Kg tuber)	Canna (Kg of tuber)	Rau bò khai (Number of cutting)	Bio-agent (Kg)	Vegetable seeds of all kinds
1	Tần Mùi Pét			3	5	5	5	5	5		4	2
1	Hoàng Tả Mỷ			3	5	5	5	5	5		4	2
1	Tần Tả Mỷ			3	5	5	5	5	5		4	2
1	Chảo Lở Mỷ	4		3	5	5		5	5	15	4	2
2	Tao Thị Mỷ			3	5	5	5	5	5		4	2
TOTAL		40	0	60	75	75	75	100	75	150	80	40

Table 10b. List of 1st batch of direct beneficiaries
Location: Pa Cheo Commune, Bat Xat District, Lao Cai Province

No	Name	Seeds/seedlings and poultry, bio-agents to be delivered										
		Chicken (number of breeders)	Fish (Kg of fingerling)	Rice (Kg of seed)	Jams (Kg of tuber)	Khoai mỡ/củ ngà/củ cộc/Potatos (Kg of tuber)	Sweet Potatos (Kg of tuber)	Taro (Kg tuber)	Canna (Kg of tuber)	Rau bò khai (Number of cutting)	Bio-agent (Kg)	Vegetable seeds of all kinds
1	Giàng Thị Say			3	5	5		5	5	15	4	2
2	Lý Thị Dưa			3	5	5		5	5	15	4	2
3	Thào Thị Pà			3		5	5	5	5		4	2
4	Cứ Thị Nhung	4		3		5	5	5	5		4	2

No	Name	Seeds/seedlings and poultry, bio-agents to be delivered										
		Chicken (number of breeders)	Fish (Kg of fingerling)	Rice (Kg of seed)	Jams (Kg of tuber)	Khoai mỡ/củ ngà/củ cọc/Potatos (Kg of tuber)	Sweet Potatos (Kg of tuber)	Taro (Kg tuber)	Canna (Kg of tuber)	Rau bò khai (Number of cutting)	Bio- agent (Kg)	Vegetable seeds of all kinds
5	Lý Thị Pa Na	4		3	5		5	5	5		4	2
6	Lý Thị May	4		3	5	5	5	5		15	4	2
7	Lý Thị Mão	4		3	5		5	5	5		4	2
8	Thí Thị Quả			3	5			5	5	15	4	2
9	Lý Thị Na			3	5		5	5		15	4	2
10	Thào Thị Á			3	5	5	5	5		15	4	2
11	Lý Thị Xý	4		3		5	5	5	5		4	2
12	Lý Thị Xé	4		3		5	5	5	5		4	2
13	Lý A Tung	4		3	5	5	5	5		15	4	2
14	Sùng A Khoa	4		3	5		5	5		15	4	2
15	Mã Thị Súng	4		3		5		5	5	15	4	2
16	Sùng Thị Di			3	5	5	5	5	5		4	2
17	Lý A Dế			3	5	5	5	5	5		4	2
18	Hầu A Dờ			3	5	5	5	5	5		4	2
19	Cứ A Cáng	4		3	5	5		5	5	15	4	2
20	Cứ Thị Á			3	5	5	5	5	5		4	2
	Tổng cộng	40	0	60	75	75	75	100	75	150	80	40

Table 10c. List of 1st batch of direct beneficiarie
Location: Liem Phu Commune, Van Ban District, Lao Cai Province

No	Name	Seeds/seedlings and poultry, bio-agents to be delivered										
		Chicken (number of breeders)	Fish (Kg of fingerling)	Rice (Kg of seed)	Jams (Kg of tuber)	Khoai mỡ/củ ngà/củ cọc/Potatos (Kg of tuber)	Sweet Potatos (Kg of tuber)	Taro (Kg tuber)	Canna (Kg of tuber)	Rau bò khai (Number of cutting)	Bio- agent (Kg)	Vegetable seeds of all kinds
1.	La Văn Quỳnh			3	5	5		5	5	15	4	2
2.	Vi Thị Thủy			3	5	5		5	5	15	4	2
3.	Ma Thị Trường			3		5	5	5	5		4	2
4.	Nông Văn Lục	4		3		5	5	5	5		4	2
5.	Vi Văn Tường	4		3	5		5	5	5		4	2
6.	An Thị Liên	4		3	5	5	5	5		15	4	2
7.	Dương Thị Vy	4		3	5		5	5	5		4	2
8.	Triệu Trung Thắng			3	5			5	5	15	4	2
9.	Lê Thị Đào			3	5		5	5		15	4	2
10.	Vi Thị Thứ			3	5	5	5	5		15	4	2
11.	Hoàng Trọng Mưu	4		3		5	5	5	5		4	2
12.	La Thị Vinh	4		3		5	5	5	5		4	2
13.	Nguyễn Thị Hiền	4		3	5	5	5	5		15	4	2
14.	Lê Văn Thắng	4		3	5		5	5		15	4	2
15.	Nguyễn Thị Nhu	4		3		5		5	5	15	4	2

Table 11. Plants and animals are distributed to households from 2 sources (project and SDCP & PP).

	Kind of animals, plants	Total number of plant varieties, and animal breeds	Number of plant varieties	Number of animal breeds	Note
1	Chicken	2		2	
2	Fish	7		7	
3	Rice	3	3		2 varieties of sticky rice and 1 variety of non-glutinous rice
4	Jams	5	5		Name: Khoai mỡ, củ ngà, củ cộc, khoai tím, củ từ
5	Potatos	2	2		
6	Sweet Potatos	2	2		
7	Taro	5	5		Vietnamese name: Khoai môn, khoai sọ, khoai sấp, doc mung, khoai nước
8	Canna	2	2		Pink canna, white canna
9	Mỹ tinh (Maranta)	1	1		
10	Vegetables	7	7		Rau bò khai, khởi tử, bắp cải Bạc Hà, rau thối, rau ngót, rau má, rau sắng
Total	10	36	27	9	

3.2.4. Seed multiplication of crops identified by the communities for sharing with other members of the communities

Rice was chosen for multiplication and sharing in the community for production.

This work could not be done fully, because the approval and implementation of the project was delayed by nearly a month compared to the rice planting season in the project area. Specifically, the seed multiply could not be done, but only identified and purchases seed and distributed to households in the community to multiple them in the next rice season (Winter cropping season, that will be started in early February 2021). And sharing the seeds will be done after harvesting at the end of May 2021.

There were three rice varieties identified and distributed to communities, they are all native varieties, of which two variety is sticky rice and one is non-glutinous rice.

3.2.5. Discussions with farmers & local authorities on reviving local market & distributions systems and strengthening the local food systems

Discussions were held between Sub-Department of Crop Production and Plant Protection (SDCP & PP), CPC and some farmers from 4 villages (Ban Xeo, Pa Cheo, Lien Phu, and Ta Chai). Some comments proposed by the participants are as follows:

Each village has trading points (created by the community) where indigenous people buy, sell and exchange their traditional goods (varieties, food, herbal medicine ...). However, due to Covid-19 they have almost closing. These facilities need to be reopened and facilities improved to facilitate business activities and exchanges.

Promote farmer groups producing the agro ecology (AE) products, and market linkages for AE products.

Policies and/or measures to ensure safety of foods for schools and hospitals. Policies and plans to support training of AE for farmers with the aims for food security and linkages to markets and/or procurement of public institutions such as schools and hospitals.

3.2.6. Exploration of the use of online platforms and digital technology for marketing and distribution of farm produce (implementation may not be feasible in this period due to limited time and funds, just initial discussions)

Mobile phone application and/or social media platforms will be piloted by local universities to supports AE farmers and schools/hospitals for listing, procurement and delivery systems of AE goods (In Lao Cai province, there is a branch of Thai Nguyen University). Public schools, private schools, and hospitals all have different procurement systems. The platform will link them together and price negotiation will be done individually or by farmer network directly. Transport will be included in the database of those who will be truckers for the village.

3.2.7. Implementation of agreed mechanisms for local procurement, production and distribution

The SDCP & PP agreed with ICERD on the mechanism and the plan of procurement, production and distribution of agricultural inputs. The implementation of procurement, production and distribution of agricultural inputs has three parties participating together, namely staff of SDCP & PP, representatives of CPC, and representatives of farmers.

The person receiving agricultural inputs must sign the receipt.

Criteria for selection sites and participated farmers and requirements outlined for participants to perform” were developed.

The participating farmers will attend the field (in field training) and provided with plant seeds and animal breeds for planting.

Farmers who receive plant seeds and livestock breeds will (multiply) them and share plant seeds and livestock breeds for others in the community to plant for foods and continue to share for others in the community.

Indigenous varieties including neglected and underutilized plant species present in local landscapes will be collected and cultivated in the ecological sounds.

3.2.8. Creation of the Linking farmers grow canna plant with local noodle manufacturer to build agreement on selling canna plant products for making conventional dry noodles and nutritious dry noodles.

A Memorandum of Understanding (MoU) was signed on November 21, 2020 between the canna dry noodles manufacturers with farmers, and SDCP&PP about plan linkage between manufacturers and farmers on production and purchasing of Canna plant products.

Some of the main terms and conditions in the memorandum of understanding (These works will be implemented in 2021 and beyond):

i) Hung Hien - Nutritious Canna Dry Noodles Manufacturers:

- > Guide the producer to design the planting schedules of Canna plant to be able to harvest many times a year to meet the noodle production requirements of Manufacturers.
- > Technical guidance for harvesting and storage, post-harvest
- > Guidance on product quality standards

ii) Authorities, specialized agencies, such as SDCP & PP, CPC:

- > Training on organic production techniques
- > Principles and requirements for contracting on procurement, and production
- > Building stamps, and branding products (for future)
- > Support for farmers to access the preferential loans for production.
- > Support in linkage farmers to produce according to standards, planting only pink Canna plant according to the requirements of manufacturers in order to produce uniform quality products.

ii) Farmers (producers):

- > Utilize the residue of Canna plant products to make compost to fertilize Canna gardens,
- > Do not use chemicals
- > Linking about 35 farmer households in Ban Xeo commune together for production and internal monitoring "Participatory guarantee systems (PGS) will be applied to ensure the quality and safety of AE produce".

Activities related to preparing for the linking farmers grow canna plant with local noodle manufacturer as follow:

The SDCP & PP sent 4 staff along with 3 farmers from 3 targeted villages to conduct survey to make the list of households producing canna plant production, with the quantity of the product and production processes.

SDCP & PP has cooperated with CPC to contact local noodle manufacture to organize meeting between farmers, manufacturer, CPC, SDCP & PP to introduce farmers' canna products produced without using chemicals, and to introduce the availability of product quantity, as well as schedule supply products for manufacture.

The meeting consisted 15 participants, including: Farmers (Canna plant producers) of Ban Xeo village - Bat Xat district, Lao Cai province; leaders and staff of the dry noodle manufacturers named "Hung Hien - Nutritious Canna Dry Noodles Manufacturers"; leaders and officials of SDCP & PP Lao Cai province; representative of People's Committee of Ban Xeo Commune - Bat Xat District - Lao Cai.

Leaders and farmers' representatives include: Mr. Pham Quoc Cuong, Deputy Director of SDCP & PP Lao Cai province; farmer's representative: Mr. A Vang; Hung Hien - Nutritious Canna Dry Noodles Manufacturers: Ms. Co Thi Hien - Director.

A Memorandum of Understanding was issued on November 21, 2020, signed by 3 people: Mr. Pham Quoc Cuong, Deputy Director of SDCP & PP Lao Cai province; farmer's representative: Just A Vang; Hung Hien - Nutritious Canna Dry Noodles Manufacturers: Ms. Co Thi Hien – Director.

3.2.9. Documentation of lessons and insights

> A Video clips show how to make "a traditional cake" by ethnic minorities "Tay" of Van Ban Districe, Lao Cai province. The purpose is to encourage and support farmers to conserve them.

<https://youtu.be/CsjedowTFQg>

The video clips are made by the Sub-Department of Crop Production and Plant Protection (SDCP & PP) - Lao Cai province, in collaboration with farmers of Liem Phu village, Van Ban district, who are the participants of field training course.

Tay's culinary culture has a long, diverse, rich traditional history with many unique and interesting dishes known to many people. For example five colors sticky rice, sour bamboo shoots, green rice...

Sticky rice cake, banana cake is the most popular cake in traditional ceremony. Sticky rice cakes, banana cakes made to present to grandparents, parents, to worship ancestors during the Tet holiday.

Cake made with main ingredient is sticky rice. Cake filling made with a rich combinations of ingredients from plant & animal sources: beans, peanuts, sesame, sugar, pork fat... Others are made of glutinous rice powder and wormwood leaves.

In the past, most Tay families made their own sticky rice cakes, banana cakes on the ceremony occasion.

However, nowadays only a few families are still making these traditional cakes.

Within the framework of project COVID-19 EMERGENCY RESPONSE, farmers learnt about establishing diversified, integrated food farms, and to promote the processing of traditional foods, such as banana cakes, sticky rice cakes from native crops & livestock materials, in order to promote their conservation.

> A Video clips introducing the Field Training on "Establishing Diversified, Integrated Food farm".

<https://youtu.be/IIJJ6XelsGI>

The video clips are made by the Sub-Department of Crop Production and Plant Protection (SDCP & PP) - Lao Cai province, in collaboration with farmers of Pa Cheo village, Bat Xat district, who are the participants of field training course. This video aims to introduce and disseminate project activities through the television stations of the district and Lao Cai province

> A Leaflet on the project's effectiveness (annex)

> There are 3 reportages introducing the project activities to be broadcast on the District and Provincial Television Station

> There are 12 bulletins broadcast on the radio systems of 4 communes (Ban Xeo, Pa Cheo, Liem Phu, and Ta Chai).

3.2.10. Sharing of experiences between 2 countries as well as with other SEARICE network partner globally

Following the arrangement of SEARICE

4. MONITORING AND EVALUATION

Implementing organisation

The Center of Initiatives on Community Empowerment and Rural Development – ICERD has been tasked with the implementation of the project component. ICERD in closely collaboration with Lao Cai (Sub Department of Crop Production and Plant Protection - SDCP&PP) to organize the field activities.

Monitoring organisation

ICERD undertaked self “monitoring and evaluation” to: follow-up on overall progress of activity implementation; ensure transparency in the implementation process to stakeholders; assess the effectiveness of activities; and strengthen the capacity to overcome constraints and difficulties as per baseline data.

Field visit

ICERD staff made regular visit to the project sites and the workshops were organized with trainer to evaluate and improvement of quality of the field activities.

Report

ICERD consolidated action plans of three communes, and consolidated progress data/information through email, phone.

Over-all/Final Report and the database files on all activities submitted before 31 January 2021.

5. BUDGET AND DISBURSEMENT

TOTAL PROJECT BUDGET	9,000.00
<i>(original receipts & vouchers are courier)</i>	
<i>Fund received</i>	7,976.50
<i>Bank fee</i>	5.50
<i>Actual Expenditure (Jyly 2020 to Jan 2021)</i>	8,962.72
<i>Equivalent</i>	986.22

6. ANNEXES

Financial Report

A Leaflet on the project's effectiveness