

**Layer farming for adaptation.
(LFAP)
(Cultivating and marketing high value crops to improve food security enhance livelihoods and
adapt to climate change in Nepal)**

1st Quarterly Report



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(September–December, 2019)

Background

The Himalayan Community Development Forum (HICODEF) has been partnering with The Glacier Trust (TGT) in south-central Nepal to enable climate change adaptation in the remote mountain villages of the Siwalik range since 2009. Our work in this region has to date, enabled people to increase their resilience to the growing impacts of climate change. From this year 2019 this project has been designed by TGT and HICODEF in close collaboration with farmers in each of the three villages (Ripaha, MatthilloBasani, and Lahape) and all relevant local government institutions.

Through this project we have reached further remote villages in the foothills of the Himalayas. This is an area of dangerously low food security. Climate change and inequality are exacerbating these problems significantly. In this project Coffee can be grown with other high value crops, root vegetables and fruits across the Himalayan foothills as a climate change adaptation and livelihood improvement strategy. Coffee will be grown using the organic 'layer farming' method so that coffee is inter-cropped with fruits, vegetables and other high value crops to vastly improve income, diet and resilience to climate change. Through this project, we will enable farmers in to grow coffee commercially for the first time.

We have also work with local primary school children and teachers to give them practical and theoretical knowledge of ecosystem-based climate change adaptation and environmental conservation.

So we have set the following objective of this project. To fulfill the following objectives Hicodef has been implementing the Layer farming for adaptation project (Cultivating and marketing high value crops to improve food security enhance livelihoods and adapt to climate change in Nepal) in partnership with The Glacier Trust (TGT) in the Newalparasi district of Nepal, focusing on the villages of Repaha and MathilloBaseni of Hupsekot Rural Municipality and Lahape of Baudikali Rural Municipality.

Objectives of project.

- 1. Capacity building for coffee farming:** 90 farmers of 3 farmer groups will receive a two-day detailed coffee production, harvesting and processing training in year one and two. In addition to the training all farmers will receive day to day coaching for planting, pruning, digging, watering and harvesting.
- 2. Providing essential equipment:** Project will support to purchase essential equipment in the initial two-year phase for quality production and skill transfer. These will be shared across the first three villages.
- 3. Stakeholders meeting:** project will organise Stakeholder meetings for the project reflection, sharing, feedback to create ownership. HICODEF, TGT, local government staff, representatives from the three



groups, members of the local farmer's cooperative and primary school teachers will participate in this meeting.

4. Schools engagement: three primary schools (approx. 115 pupils) will engage in this program for environmental and climate change adaptation education in the initial two-year phase. They will engage in environmental sanitation, practical knowledge and skill on climate change adaptation measures through exposure visit and establishment of pupil-led kitchen garden in each school.

4. Seed and seedlings Support: In addition to practical training and advice, the project will support seeds and seedlings to individuals farmers and the schools. Project will collaborate with farmers, schools and local government to achieve this. The project will support up to 100 farmers in the initial two year phase.

5. Volunteers' mobilization: Up to 6 plants JTA will be placed in the community to support the farmers and also develop human resources in agriculture sectors.

6. Ground and shade crops: The project will support farmers to grow ground crops like ginger, turmeric and a variety of root vegetables along with shade crops. The Project will organise quarterly plant clinic workshops in each village to enable farmers to develop the skills needed to grow and nurture ground crops. Effective water management techniques will be taught along with organic fertiliser and organic insect pest control methods.

6. Marketing and Exposure visit: Project will organise an exposure visit to Deusa Agro Forestry Resource Centre (AFRC) in Solukhumbu (eastern Nepal), Nine farmers and two HICODEF staff will travel to Deusa AFRC for a learning exchange visit. They will meet coffee farmers from Solukhumbu to learn more about their techniques, marketing and share their own experiences.

7. Monitoring and Evaluation: The project will conduct a baseline survey followed by regular monitoring, supervision and data recording. Each farmer will be given a diary to keep a record of their production. Project will support farmers in their record keeping and ensure that they are up to date.

8. Monitoring legacy of ECCLA. Layer farming for adaptation is a continuation of TGT's partnership work with HICODEF. Our previous project, ECCLA, was completed in July 2019. HICODEF will continue to monitor impact in the villages of Dhahaba, Sartakun and Durlunga, specifically to capture data on:

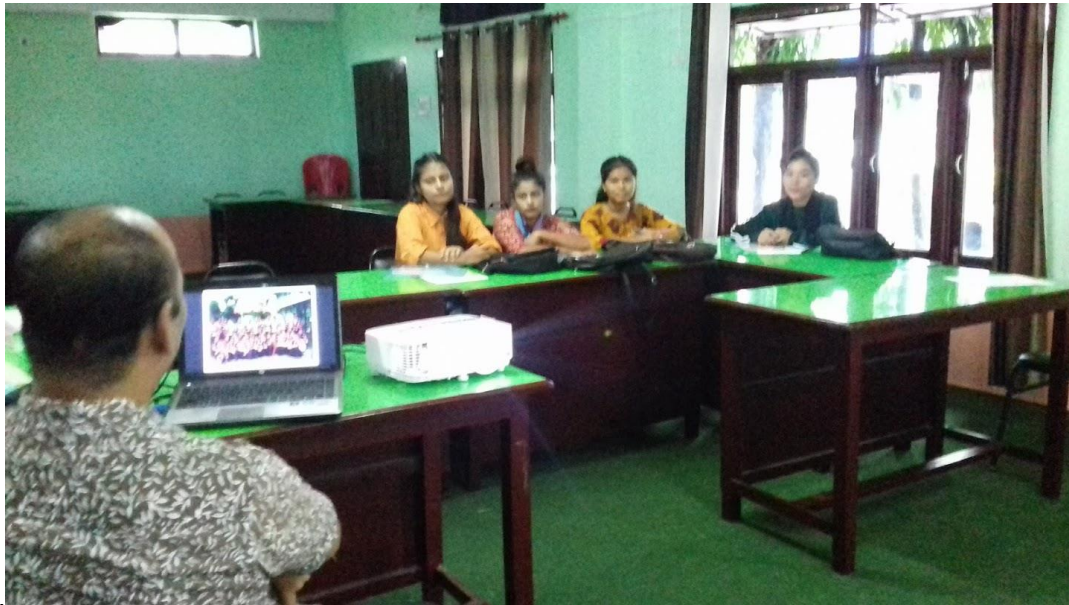
To fulfill the above objectives the following activities have been done during this period

1. OJT Volunteers orientation & mobilization
2. Farmers Group formation
3. Base line Survey
4. Project Monitoring
5. Schools engagement program
6. Previous Program Monitoring

Activities implementation and achievements

1.OJT Volunteers orientation & mobilization

According to our plan there are 6 OJT volunteers to be haired but only 4 volunteers have been joined as JTA (Junior technical Assistant) volunteers in our program during this period .**(3 from Ammar Secondary School, Bharatpur chitwan, &1 from Shaid Smirit community Secondary school kawasoti.)** Before mobilising them a one day orientation have been organised for them in HICODEF office. Introduction of project, objectives, activities, rule®ulation of Organisation, project, benefits of OJT, activities implementation process &methods, their roles and responsibilities for smooth mobilization of project have been described in the orientation. After orientation these female 4 plant JTA (Junior technical Assistant) volunteers have been placed two project sites & mobilized them in 2 farmers groups (2 volunteers in each group-1 in Ripaha, & 2 in Matthillobasani) . The total length of the course of JTA is 18 months including 6 month practical that we have support to gain practical knowledge as they practice on the field. .The volunteers will help for strong social mobilization and also technical support to the farmers in regular basis as well as capacity development of their own as they live in the community create opportunity to build relationship of trust with the farmers. The volunteers have been guided and monitored by Project Coordinator of the project. The volunteers have massively mobilized to collect the information of farming and other social issues. They have to submit monthly report to technician of their work that is the evidence of their work and it also indicates what they learnt. This initiation supports the farmers when they need in the farm and also the project contribution to develop human resource to work in the agriculture sector



Orientation to OJT Volunteers

2. Farmers Group formation

During this period 3 farmers groups have been formed in Lahape, Ripaha, and MatthilloBasani. The Detail of Farmers' groups are as follow.

Name of Farmer Groups	Total HH	women headed HH	Total HH member	F	M	Remarks
Milijuli Farmer group Hupsekt 5 Basani	25	5	248	117	131	Active hh 21
RumsiRipaha Farmer group Hupsekt 4 Ripa	31	7	196	102	94	Active hh 27
JuntaraLaxmi Farmer group Bundhilaki 6 Lahape	43	8	320	155	165	Active HH 37
Total	99	20	764	374	390	

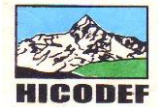
At the same time, inception workshop has been conducted to inform them about the goal, objective, expected results of the project including plan activities, budget and their roles and responsibilities.



Framer group formation in Ripaha

3. Baseline Survey

The baseline survey has been conducted in 3 sites MathilloBasani and Ripaha of Hupsekot rural municipality and Lahape of Bundhikali Rural Municipality. This is the regular process



conducted in the beginning to set the milestone for the project and also monitoring the previous milestones. The survey covered 99 HHs. The survey has been conducted applying rapid rural appraisal (RRA) methods like household survey and focus group discussion. Household Survey has been done to obtain the information regarding demographic information, agriculture production and productivity, cultivation and food sufficiency of the farmers. The details findings are in the tables below

Location	Total HH	women headed HH	Total HH member	F	M	Exiting coffee plants	Exiting vegetable cultivating area (ropani)	possible coffee plantation area (Ropani)	remarks
Basani	25	5	248	117	131	76	25	43	0
Ripa	31	7	196	102	94	30	17.67	74	0
Lahape	43	8	320	155	165	585	16.85	292	0
Total	99	20	764	374	390	691	59.52	409	0
2Hactors								20.5 Hactors	

Status of Food security (3 month, 6 month, 9 month, 12month)

SN	categorization	Location			Total
		Basani	Ripaha	Lahape	
	Month				
1	3month HH	0	12	7	19
2	6month HH	20	16	23	59
3	9month HH	3	0	6	9
4	12 month HH	2	3	7	12
	Total HH	25	31	43	99
	Women Headed HH	5	7	8	20

Achievements

- According to baseline there are 99 HHs in 3 sites where 764 are total population among them 390 male and 374 are female. 20 HHs are headed by women. The status of food security are 19 HHs are up to 3 months, 59HHs are up to 6 months, 9 HHs are up to 9 months and 12 HHs are up to 12 months or more.
- 2 hectares of land has covered by the vegetable, 20.5 hectares of land are eligible for coffee plantation. There are 691 coffee plants in these 3 sites.

4. Project Monitoring

During this period HICODEF team (ED, PC & SDO) and Co-Director of TGT have been visited 2 project sites Ripaha and Lahapa for monitoring the project activities and to know

the exiting situation. Dhubadi village was also visited by the monitoring team in the way. They also visited & observed coffee plantation site and Nursery area at that time. During the visit the monitoring team has made an interaction with communities in both sites. In the interaction ED of HICODEF has been informed the communities regarding the project goal, objectives, working are, activities components, implementing methods, process & its expected outcomes. In Lahape the team has been visited in school for the School engagement program & observed the selected site for practical session. The Team made interaction with school management team and teachers for proposed activities. And get the feedbacks and suggestion from the community for the project activities.



Coffee plant observation

5. Schools engagement program

During this period we have started school engagement program in all 3 project sites. There are 1-3 class in Ripaha (Shree Surya Binayak Basic Level School), 1-6 class in class in Basani (Shree Rastrya Basic level school) & 1-8 class in Lahape (Shree Laxmi Basic Level School) .we have formed students groups in each schools in Ripaha (Shree Surya Binayak Basic Level School-3 Groups), Basani(Shree Rastrya Basic level school-4 Groups), & Lahape(Shree Laxmi Basic Level School- 4 Groups). The students of classes 2-8 are involved in these groups. According to numbers of classes & students we have formed 3-4 groups in the school. Each group has special name of popular flowers to recognize them like *Laligurans*, *Makhamali*, *Gulav*, & *Saypatri*. In each group has selected one Group Leader from the students. The Groups have been caring & facilitated by each group teachers. All the school engagement activities will be done by these groups in school. Each group has their separate land for practice so that there will be healthy competition among them. Now we have conducted the classes of climate Change, its Impact, & Addressing measure, has been completed in all schools. All the classes are carried out

with flip Chart, presentation and Groups discussion Methods. All the students of Schools are given more interest in such classes and presentation.



Students Group Formation For school program



Climate change Class to Student

6. Previous Project Monitoring

During this period the project coordinator of this project have been monitored previous ECCLA project activities in Dhabaha, Satakun & Dulunga. During this monitoring the PC visited farmers HHs & their Cultivation Land, Home Garden, Project site and observed tunnel farming, plastic ponds, RVT. This is the time of cultivating vegetables, potatoes, chilly. Most of the farmers are engaged/ involved in prepare their field for planting vegetables like potatoes and harvesting chilly. The RVT of Dulunga have been running smoothly. Farmers have been continuing irrigation facilities from this RVT. In Dulunga. 9 farmers are actively involved in tomato farming. They have sold 2375 kg tomatoes during this period. More than 1700 kg potatoes seed have been planted and 2250 KG chilly have been sold in these 3 sites.



Land preparation for potato cultivation in Satakun and tomato cultivation in Dulunga

Challenges

- Due to the late start of the project, the project just have 4 OJT volunteers (designed for 6) among them 1 volunteer has dropped out due to her health problem.
- In present context community have small quantity of coffee parchment, but they are not able to find market so far, so community have expressed their frustration in coffee production.

Future plan

- Coffee market coordination
- Plant Clinic
- coffee Training ,
- Plastic pond & Tunnel Distribution
- School engagement program continue

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