



Quarterly Progress Report

Project title: Mandan Deupur Agro Forestry Resource Centre (M-D AFRC) Centre	Project code:
Report by: EcoHimal Nepal	Month: October
Date: July-September	Year: 2020

A. ACTIVITIES

The following **activities** have been conducted during the reporting period, from 1st July to 30 September 2020.

Output 1. Detailed Baseline and Feasibility Studies Completed

1. Coordination with local government and local communities

- A meeting of the MD-AFRC management committee, in the presence of Mr. Madhav Neupane, Ward Chairperson of Ward no. 11 of MDM as chief guest, was organized and conducted at the AFRC meeting hall on 01 August 2020, where an annual progress review of the project work was undertaken – this included discussions on implemented activities, progress on seedling production and plantations, the income and expenses of the MD-AFRC, the fixed assets acquired to date. It was followed by planning discussions, and a public commitment by all participants to implement the project more effectively in the current circumstances to ensure fulfilment of its objectives. The following decisions were made at the meeting:
 - ✓ procurement of cauliflower seeds from the previous fund balance of the MD-AFRC management committee bank account;
 - ✓ preparation of documents proposing that the office of Ward no. 11 construct a model improved cattle shed at the Centre, and a decision to request for the necessary budget provision from the ward office as soon as possible;
 - ✓ remove the trees of Pine, Sal (Shorea Robusta), etc. the from the terraces under the jurisdiction of the MD-AFRC;
 - ✓ preparation of the annual plan for the MD-AFRC and approve it at the next meeting.
- A meeting with Mr Jit Bahadur Tamang, the Ward Chairperson of Ward no. 9, of Mandan Deupur Municipality (MDM) was undertaken on 2 August, 2020, where methods involved in effective tree crop plantation employing bio-intensive methods was described and discussed. Mr. Tamang shared his feelings on the challenges in tree crop promotion over the past years, including distribution of poor-quality seedlings and lack of technical knowledge about appropriate plantation technologies, which have been a major cause of failure of tree crop initiatives in the municipality. After the meeting, a lead farmer was selected and oriented about the bio-intensive plantation techniques and preparation of planting pits.
- A meeting with Mr. Narayan Lamsal, Ward Chairperson of Ward no. 7 of MDM was held on 3 August 2020. At this meeting, discussions focused on the establishment of a satellite nursery in Ward no. 7. It was decided to select a committed lead farmer from the Ward and provide him or her the necessary support to establish a nursery. After the selection of a farmer, EcoHimal Nepal, the Ward Chairperson and the selected farmer



would have a meeting and detailed discussions before nursery establishment began. The lead farmer has yet to be selected.

- A meeting with Mr. Netra Prasad Dhakal, Ward Chairperson of Ward no. 5 of MDM was held on 3 August 2020, where detailed discussions concentrated on establishing a satellite nursery, and implementation of a coffee promotion programme in the ward. Mr. Dhakal took the responsibility to select a model farmer to establish the satellite nursery, after which a meeting in presence of the Ward Chairperson, an EcoHimal Nepal representative and the selected farmer would be organized to establish the ward-level satellite nursery.

Immediately after the meeting, 5 dedicated farmers were selected to establish coffee plantations, and they were coached on proper plantation procedure and pit preparation, and provided with a total of 500 coffee seedlings. Details of the farmers are provided in Table 1 below.

Table 1: Selection of Farmers for the Coffee Promotion Programme

#	Name of Farmers Receiving the Seedlings	Municipality	Ward	Sex	Number of seedlings received	Utilization of land in hectares
1	Sudarsan Dhakal	Mandan Deupur	5	Male	150	0.50
2	Rishiram Dhakal	Mandan Deupur	5	Male	150	0.50
3	Goma Dhakal	Mandan Deupur	5	Female	100	0.33
4	Sanita Sherestha	Mandan Deupur	5	Female	50	0.17
5	Bhuntu BK	Mandan Deupur	5	Male	50	0.17
Total					500.0	1.67

- Regular communications and coordination were held with the satellite nursery lead farmers and orientation and guidance provided for proper care of the nurseries and plants.
- All 12 ward offices of the MDM were encouraged to promote bio-intensive technique of fruit cultivation, through regular communications.
- Coordination with the agriculture section of the MDM continued and 4 virtual trainings were organized on different dates, jointly organized by EcoHimal and MDM during the lockdown period. The Chief of the agriculture section, Mr. Gopal Sapkota, formally chaired all the virtual trainings on behalf of MDM.
- EcoHimal Nepal and MDM had jointly decided to do household visits of all farmers who had received seedlings from both the MDM and the MD-AFRC in order to monitor the status of the tree crop plantations and the survival rates, and to provide encouragement and training. The plan, however, was postponed due to the pandemic, when the MDM imposed a lockdown with strict travel restrictions across the whole municipality. The visits will be carried out when the situation normalizes.



Output 2. Establishment of the AFRC, Outlet Centres, and Satellite Nurseries Completed

1. Establishment and Management of the Nurseries

- Regular weeding and irrigation is being undertaken by the support staff in the nurseries of the MD-AFRC.
- A record of the cultivated crops, fruits, nuts, fodders and forages in the nurseries, is currently being updated.
- Nurseries of mango and jack fruit were established, and 350 seedlings of mango have been kept for hardening in polybags. 500 mango and 400 jackfruit seedlings have been planted to prepare root stock for grafting purposes.
- Polybags have been filled, and are ready for mango and jack fruit transplantation.
- The following seedlings were planted at the MD-AFRC premises: 50 coffee, 38 camphor, 30 litchi, and 5 jackfruit.
- Sweet potato seedlings were planted in areas where soil erosion was a risk.
- Vegetables were cultivated following organic principles - these included cauliflower, cabbage, spinach, and radish.
- Guava seedlings were transplanted into polybags.
- 700 coffee seedlings were produced at the nursery in the reporting period.
- Radish and lettuce cultivation was undertaken in plot no. 5, and cauliflower, onion and peas were established in plot no. 6.
- 1000 litres of bio-pesticide were prepared using local herbs, aromatic leaves and grasses.
- The current status of seedlings in the MD-AFRC nurseries has been updated, and the record is listed Table 2 below.

Table 2: Summary of seedlings produced in the MD-AFRC nurseries

Number of varieties of tree crops and species	Seedlings produced up to June 2020	Seedlings produced from July to September 2020	Total	Details seedlings		
				Number of distributed and planted seedlings	Number of seedlings that died	Current seedlings in stock
54	1,882	1,341	3,223	179	53	2,991

Further details of the seedlings produced at the MD-AFRC along with their distribution and plantation is provided in [Annex 1](#).

- The survival status of the planted seedlings of fruits, nuts, ornamental trees and spices at the MD-AFRC was also updated. Table 3 below compares the survival status of seedlings planted in 2019 and 2020 is examined and updated. Following field observations, the survival rate of seedlings over the 2 years is 78% which is a satisfactory. Some 22% seedlings died due to a variety of circumstances.

Table 3: Summary of the survival status of seedlings

#	Particulars	Survival Status of Seedlings				Total
		Active	%	Dead	%	
1	Planted seedlings in 2019 (214)	147	69	67	31	214
2	Planted seedlings to date in 2020 (122)	115	94	7	9	122



Total	262	74	336
% in Total		78	22

Further detail of the plants and their survival status is provided in [Annex 2](#).

- Bio-fencing: 592 plants of 9 species have been planted around the AFRC boundary for live fencing purposes. A detailed list of the plants is provided in [Annex 3](#). Plants established for fencing purposes in 2019 have grown well and have converted into scrub; the survival status of the plants is almost 100%.
- Plantation to minimize soil erosion at the MD-AFRC: 825 saplings of 7 species of fodder and forage have been planted to minimize soil erosion. The survival status of saplings is nearly 100%; details are provided in [Annex 4](#).
- Demonstrations of System of Rice Intensification (SRI): following the success of the 2019 demo at the Centre, two further demonstration plots were established where SRI rice was compared against traditionally cultivated methods. Unfortunately, the demonstration plots were completely ruined by wild rabbits, and there was no production. Wild rabbits are becoming a problem for other crops and vegetables as well – some of the cauliflowers were destroyed last year, and this year cauliflowers on a 50 m² area were also completely eaten.

2. Establishment of the Satellite Nurseries in 2 More Wards

In addition to the 2 satellite nurseries (Chandeni and Nayagaune) established in 2019, one more satellite nursery in Ward no. 12 has been established. Despite the COVID-19 pandemic, the nursery caretakers have maintained the nurseries well, as described below.

- **The satellite nursery (SLN) at Nayagaune, Ward no. 3:** the nursery is well managed by the caretaker, Mr. Chutar Bahadur Tamang. In this reporting period, he has produced 500 seedlings of cabbage from 10 grams of seed, and has planted 300 seedlings of tomato. In addition, necessary land has been properly prepared for further seedling plantation in the near future.
A temporary structure using locally available materials such as plastic and bamboo was constructed for the protection of seedlings after the proper plastic house was destroyed by heavy wind during the 2020 monsoon. Fruit seedlings planted in 2019 (5 varieties of fruits¹) are healthy and growing well.
Mr. Chutar Bahadur Tamang generated an income of NPR 8,000 through the sale of 160 kg tomato produced in the nursery. Some of lemon seedlings produced and planted this year by himself were destroyed by a landslide during the 2020 monsoon.
- **The SLN at Chandeni (Ward no. 10):** the satellite nursery is properly managed by the caretaker, Mr. Shyam Kumar Lama. In this reporting period, he has planted out 200 tomato seedlings produced in his nursery. He has also kept 250 jackfruit seeds in poly bags for rootstock. In his green house, he has cultivated radish, and different types of green leafy vegetables.

¹ 6 varieties of fruits were planted. Seedling of peach was died in previous reporting period.



More than 6,000 seedlings of onion have been produced and are ready for plantation in the near future. He has managed the plantation well and has already sold 3,000 seedlings to local farmers, and established nurseries for cabbage and cauliflower. Mr. Lama is skilled at preparing bio-pesticide, liquid manure and **brodo pest**, which he prepares as required for the plants in the nurseries.

The survival status of fruit tree crops planted in 2019 is 100%, and all planted seedlings are healthy.

- **The new SLN at Jyamdi (Ward no. 12):** a detailed feasibility study of the proposed site for establishment of a satellite nursery in Jyamdi village of MDM-Ward 12 was carried out by Eco-Himal technical staff and the MDM social development officer. The location was found to be appropriate geo-structurally, the land is government owned, and total area is about 4 ropani (approx. 610 m², and was thus approved and selected. The community-led satellite nursery was inaugurated by Province Parliament Member Mr. Laxman Lamsal on 12 September 2020 by planting an apple grafted sapling. He mentioned during his speech that *“if this SLN initiative succeeds, I will seek the government’s financial support, but the precondition is the nursery results must be positive”*. 33 people from the local community were present at the inauguration – as listed in **Annex 5**.

The following progress has been achieved in the reporting period:

- the land was prepared by volunteers from the local community; 11 local farmers contributed a whole day on 14 September, 2020, as detailed in Annex 6;
- ground levelling, planning, and seedling bed layout and preparation was completed;
- 20 seedlings of 8 varieties were planted as mother plants in the nursery following bio-intensive planting methodologies – as listed below in Table 4.

Table 4: Seedlings planted

#	Seedlings	Varieties	Quantity
1	Apple	Dorset Golden	2
2	Apple	Anna	1
3	Peach	Desert Gold	3
4	Plum	Beauty	4
5	Grape	Khyo	4
6	Lime	TL	2
7	Orange	Unsu	3
8	Ginkobailoba	N/A	1
Total			20

Planting of the seedlings was also done by community volunteers - 13 September 2020, 15 local farmers contributed one day for this – as detailed in **Annex 7**.

Mr. Rudra Prasad Parajuli was selected as nursery caretaker, and takes full responsibility for nursery management. More recently, a 10 member Jyamdi SLN management committee has been formed, as detailed in Table 5 below.

Table 5: The Jyamdi SLN committee members



#	Name	Designation	Address	Remarks
1	Bishnu Prasad Parajuli	Chairperson	Mandan Deupur-12	Male
2	Raju Prasad Parajuli	Vice Chairperson	Mandan Deupur-12	Male
3	Narayan Prasad Parajuli	Secretary	Mandan Deupur-12	Male
4	Sita Bhattarai	Treasurer	Mandan Deupur-12	Female
5	Ram Sharan Bardewa	Member	Mandan Deupur-12	Male
6	Nil Prasad Parajuli	Member	Mandan Deupur-12	Male
7	Sunil Parajuli	Member	Mandan Deupur-12	Male
8	Dilmaya Purkoti	Member	Mandan Deupur-12	Female
9	Dhan Bahadur Tamang	Member	Mandan Deupur-12	Male
10	Sarmila Parajuli	Member	Mandan Deupur-12	Female

After further land designing and plotting, nurseries of different varieties of tree crop have been established, and seeds and seedlings planted, as shown in Table 6 below.

Table 6: Seeds of tree crop varieties sown in the Jyamdi nursery

#	Tree crops	Plot number
1	Pomegranate	2
2	Masal	1
3	Moringa	1
4	Chinaberry	2
5	Kalki	1
6	Birendra Kalki	4
7	Camphor	1
8	Juniper	1
9	Pine	1
10	Buddhachitta	1
11	Lapsi (Hog plum)	1

Necessary agri-materials for nursery and plot establishment, garden management and proper irrigation have been provided by the project, as have different varieties of vegetable seeds. Detail of the agri-material and seed support is documented in [Annex 8](#).

3. Establishment of an Outlet for Organic Produce

To date, 3 organic villages have been established. 2 organic villages - Sunaulokot Organic Village (Ward no. 10) and Simkhet Organic Village (Ward no. 3) were established in 2019, and the farmers in these two villages have started to farm organically through capacity building in the preparation of organic manure, bio-pesticides and brodo pesticide mixtures.

During this reporting period, one more village, Halede village of Ward no. 1 of MDM, has been selected and established as an organic model village, and will be promoted as an outlet for organic vegetable production.



27 local farmers (details provided in [Annex 9](#)) have joined as organic vegetable promoters, and have been trained on organic vegetable production, on liquid manure preparation and land preparation for vegetable production - details of the trained farmers is provided in [Annex 10](#).

To promote organic production in all 3 model villages, the project has provided improved vegetable seeds to 37 individual farmers (18 farmers from Halde village, 5 farmers from Simkhet village, and 14 farmers from Sunaulokot village) in this reporting period. Of the 37 recipients, 8 farmers have been producing vegetables for household consumption only in their kitchen gardens, and 29 farmers are cultivating vegetables for commercial purposes. Details of the vegetable seeds provided and the recipient farmers is provided in [Annex 11](#).

Output 3: Quality Training of Farmers in Agro Forestry and Agri-Options Delivered

1. Provision of Training Workshops

a. Provision of trainings and orientations

In this reporting period, several training and orientation workshops have been conducted, both physically and virtually – as follows.

- Training on cultivation of fruits applying bio-intensive plantation techniques in Ward no. 7 of MDM was conducted on 4 August, 2020 – 6 farmers (3 male and 3 female) were able to learn through practical demonstration and practice about pit preparation, collection of necessary materials, the correct methodology for filling the pit, and techniques for seedling plantation. A participants list is provided in [Annex 12](#).
- Training on bio-intensive plantation techniques in Ward no. 12 of MDM was carried out on 5 August, 2020. 6 farmers were trained on bio-intensive pit preparation, collection and management of required materials and seedling plantation techniques. Details are provided in [Annex 13](#).
- Training on bio-intensive plantation techniques in Ward no. 3 of MDM was carried out on 6 August, 2020. The project staff conducted trainings to 7 local farmers (6 male and 1 female) and coached them to prepare bio-intensive pits, and manage necessary materials and plant seedlings using bio-intensive techniques. A participants list is provided in [Annex 14](#).

In this training, the Mayor of MDM, Mr. Tok Bahadur Waiba fully participated throughout the training as a trainee and appreciated the plantation technique, and mentioned about the considerable need for technology transfer between the farmers on fruit production. He committed to cooperate with the MD-AFRC when planning seedling distribution by the local government in coming years.

- A one day practical training on bordo pest and mixture preparation, and liquid manure preparation was provided to the organic village of Chandeni on 10 August 2020. The training was given to the members of Sunaulokot Organic Krishi Thata Pasupalan Samuha², who were divided into 2 groups to maintain social distance and comply with government COVID-19 regulations. 15 farmers participated, as listed in [Annex 15](#).

² Sunaulokot organic agriculture and livestock group



- A one day practical training on liquid manure preparation and use of EM liquid was conducted on 11 August, 2020. Participants, numbering 7 farmers, are listed in [Annex 16](#).
- A one day training on liquid manure preparation in Nayagaun Heele was conducted on 12 August 2020. The 11 farmer participants, listed in [Annex 17](#) learnt how to prepare liquid manure and to use it properly.
- Virtual training on diseases and pests of citrus fruits and their control was conducted on 25 August 2020 for citrus fruit farmers. The training was organized in cooperation with the agriculture section of MDM and facilitated by the project officer, Mr Dipendra Aryal. Participants learnt about different citrus diseases and pests, and integrated pest management for improved control. It was interactive, and participants raised genuine questions on their experiences and problems, and solutions were suggested. There were 32 farmer participants, as listed in [Annex 18](#), including 2 representatives from Deusa in Solukhumbu District.

The main topics of training included:

- ✓ types of citrus diseases and pests, and targeted organic control methods,
 - ✓ preparation and use of Brodo pesticide,
 - ✓ need for a soil test, and method for soil sample collection.
- Virtual training on soil structure, soil problems and brodo pesticide paste and mixture preparation – this was conducted on 31 August 2020, for 16 farmer participants, focused on the following topics:
 - ✓ types of soil and their properties,
 - ✓ method of soil sample collection for soil testing,
 - ✓ proper use of agriculture lime,
 - ✓ preparation and use of brodo paste and brodo mixture pesticide.

The participants expressed their satisfaction on the methodology and information provided - the list of participants is provided in [Annex 19](#).

- Virtual training on management of diseases and pests of paddy was conducted on 3 September, 2020. The training was conducted in cooperation with the local government to raise farmers' awareness on diseases and pests of paddy and possible solutions. The problems faced by local farmers together with ways to identify diseases and pests and integrated pest and disease management techniques were discussed with participants, who raised different questions about the problems they were facing from different pests and diseases. Possible solutions and measures were suggested focusing on an integrated bio-pesticide management approach. Participants totalled 27 farmers, as detailed in [Annex 20](#).
- Virtual training on organic vegetable farming was organized on 8 September, 2020, in cooperation with the local government to promote organic vegetable production in the project area. The status of organic farming in Nepal and different organic approaches were discussed and farmers were encouraged to follow organic production methods. At the end of the training, farmers expressed their interest in adopting organic production procedures. 44 farmers participated, as recorded in [Annex 21](#).
- A one day practical training on preparation of Brodo pesticide and its proper use was held on 14 September 2020 in Ward no 10 of MDM, with 7 farmers participating. The focus was on:
 - ✓ identification of the necessary materials for Brodo pesticide preparation;



- ✓ the importance and efficacy of brodo pesticide for fruit tree insects and pest control,
- ✓ methods of brodo pesticide preparation and its proper use.
- A field based practical training on vegetable nursery management was conducted for 23 farmers (see [Annex 22](#)) in Ward 1, MDM (Halde village) on 27 September 2020. They obtained technical knowledge and skills relating to vegetable nursery establishment and management.
- A field-based practical cum demonstration training for 14 farmers (see [Annex 23](#)) on bio-bed preparation, organic farming and disease control was conducted on 29 September, 2020. The training was facilitated by technical staff members.
- The farmers receiving seasonal vegetable seeds were all oriented on vegetable seedling production and vegetable farming during the distribution of the seeds.

b. Preparation of the training manuals

Utilizing the lockdown and related travel restrictions in a productive manner, 95 training manuals have been prepared on different aspects of farm management, cropping and cultivation. The project plans to produce these in booklet format in both Nepali (original version) and English. The manuals are undergoing final editing by the project manager, and will be shared with experts for proof reading, before final design and printing. After finalization, the manual will be designed and will be printed in the Nepali language. An English language version will be available in early 2021.

2. Post-training Promotion of High Value Tree Crops and Alternative Farming Systems and Technologies

Provision of seedlings: during this reporting period, the local farmers have been provided improved varieties of fruits, nuts, and spices as part of the promotion of high value tree crops. For the summer plantation, a total of 2,835 seedlings of 25 varieties were purchased from 4 nurseries and transported to MD-AFRC in June 2020. In the previous reporting period (ending June 2020), 1,077 seedlings were distributed to 53 local farmers and 37 seedlings were planted at the MD-AFRC, where 1,721 seedlings remained in stock at the end of last reporting period.

From July, in this reporting period, a further 244 seedlings have been planted by individual farmers, and at the satellite nurseries and the MD-AFRC. Currently therefore, 1,477 seedlings remain at MD-AFRC, where they are hardening and acclimatizing. A summary of the seedlings purchased, distributed and hardening is presented in Table 7 below.

Table 7: Summary of seedlings purchased and distributed

#	Particulars	Number of seedlings	Remarks
A	Number of Seedlings Purchased in Previous Reporting Period		
A1	Number of seedlings purchased in June 2020	2,835	25 varieties
A2	Number of seedlings purchased during July to Sept 2020	500	
	Total	3,335	
B	Seedlings Distributed and Planted		
B1	Seedlings distributed in previous reporting period (up to June)		



1	Number of seedlings planted at the MD-AFRC	37	
2	No. of seedlings distributed to farmers (visiting AFRC)	1,040	
3	No. of seedlings distributed under Ward Level Scheme during bio intensive training.	37	
Sub-Total		1,114	
B2	Seedlings distributed in this reporting period (July to September)		
5.1	No. of seedlings distributed to individual farmers	582	
5.2	No. of seedlings distributed under Ward Level Scheme	147	
5.3	No. of seedlings distributed/ planted at Satellite Nursery Ward 12	18	
5.4	No. of seedlings planted at the MD-AFRC	5	
Sub-Total		752	
Total		1,866	
C	Seedlings under hardening in MD-AFRC	1,469	

Plant distribution is always followed by technical knowledge and skills transfer on alternative farming technologies; all fruit and nut plantations are undertaken with application of bio-intensive plantation techniques.

Further details on Table 7 are provided in [Annex 24](#). Details of the seedlings distributed to local farmers from the MD-AFRC are provided in [Annex 25](#). Detail of seedlings distributed to local farmers under the Ward level scheme are provided in [Annex 26](#).

3. Provision of Monthly Farmers' Training Courses at the AFRC

Due to COVID-19 and government restrictions on organizing communal meetings and trainings, it has not been possible to organize the monthly farmers' trainings at the MD-AFRC as planned. In this reporting period, there has only been one monthly training, held under strict social distancing and preventive and protective measures. The training was organized on 1 August 2020, and focused on brodo pesticide and mixture preparation and its use for organic farming; the 11 participants (see Table 8 below) were also trained on bio-intensive plantation techniques.

Table 8: Farmer participation in the only monthly training held at MD-AFRC during the reporting period

#	Name of Farmer	Sex	Address
1	Shostik Dotel	Male	MDM-6
2	Pratik Dotel	Male	MDM-6
3	Hari Bajgain	Male	MDM-3
4	Kedar Nath Bajgain	Male	MDM-3
5	Ramesh Timalisina	Male	MDM-12
6	Dor Bahadur Budhathoki	Male	MDM-8
7	Samir Parajuli	Male	MDM-12
8	Bude Tamang	Male	MDM-11
9	Hiralal Shrestha	Male	MDM-11
11	Badri Baskoti	Male	MDM-1



4. Organic Certification

Organic Certification Nepal (OCN) was selected for the organic certification process. Discussion with OCN continues; plans for field visits to the 3 organic villages and 3 nurseries has been planned many times, but due to the COVID-19 pandemic and the nationwide lockdown these planned trips have been postponed. The project management is in regular contact with the OCN team – the next planned trip is for the second week of November 2020.

Output 4: Engagement and Coaching of Secondary School Students Delivered

1. Support Provided to Schools for Establishment of School Agro-forestry Garden

A feasibility study at the Dwarpaleshwor Secondary School was carried out on 1 September 2020. The school management was orientated through discussions about the objective behind the establishment of the school agro-forestry garden, and an explanation of the school's and teachers' roles and responsibilities before and after garden establishment. After the meeting, the available land in the school premises was surveyed, and it was decided to plant 21 seedlings of various species, including pine, nuts, apple, pear and plum. The school management and responsible teachers have been oriented about bio-intensive plantation techniques, and the school provided its commitment to prepare pits and the necessary materials before January 2021.

2. Broadcast Monthly Local Radio Programme on Environmental Issues

In this reporting period, 7 episodes have been produced and broadcast with the cooperation of Radio Namobuddha. The radio programmes covered the following thematic issues:

- ✓ commercial fruit cultivation and its importance,
- ✓ organic farming and the bio intensive technologies recommended for plantation establishment,
- ✓ disease and pest identification, prevention and treatment on citrus fruits,
- ✓ alternative methods to manuring,
- ✓ climate change and its connection to crop production.

A synopsis of the radio programmes is provided in [Annex 27](#).

Other Activities

EcoHimal Nepal was actively involved in 3rd Agri Talk as co-organizer with main organizer King's Collage Nepal in cooperation with the Institution for Sustainable Actions for Prosperity, Krishak ra Prabidhi, Gandaki Urja, DV Excellus and Baliyo Nepal. The theme of the Agri talk was the **Agriculture Nutrition Pathway**: Income Generation for Improving Health. Dr. Atul Upadhyay, who has a PhD in Agriculture Science, shared the important issues concerning the current status of Nepali agricultural nutrition.



B. Difficulties

COVID-19, travel restrictions and psychological fear and trauma created a challenging environment for undertaking the project activities. COVID-19 infections in the MDM, the long country-wide lockdown, and locally by the local government (still on-going) and restrictions on communal gatherings hampered project implementation.

C. A Success Story

A foreign migrant labour returnee's attraction to Agroforestry – from Mr. Hari Prasad Bajgain

Hard work, dedication and some innovative thinking to make use of available resources for obtaining maximum benefit is practiced by only a few farmers before the initiation of the agroforestry programme in Mandan Deupur Municipality (MDM). Mr. Hari Prasad Bajgain, a resident of MDM Ward no. 3, aged 41 with 4 family members, is an example of a lead and innovative farmer. A foreign returnee farmer by choice, he started cultivating tree crops and organic farming on his own land after his return. He shares his story below.

"From an early age, I went aboard in search of better earnings and a better standard of living for my family. I have invested 10 young energetic years of my life in the Middle East, but it was not worth mentioning in terms of the income I could generate or save. I was not satisfied with my progress there and returned back to my motherland in 2018 with a strong determination to work for my own nation and not to invest further energy overseas. I wanted to seek an opportunity to improve my living standard through improved agriculture in my own mother land so I could stay together with my beloved family members. However, in my own country Nepal, the situation never seemed preferable to start a new livelihood, and I was always in confusion. Finding no choice, I continued the traditional farming methods but I was never able to gain benefits that satisfied my requirement or expectations. So yet again, two more unproductive years went past - in those two years, I consulted the agriculture section of local government many times, hoping to receive technical guidance and resource support to initiate an improved agricultural system, but never found any solutions that suited me.

However, on one visit I was told about the Mandan Deupur Afroforest Resource Centre (MD-AFRC), which I immediately visited and where I had a wonderful opportunity to observe climate resilient improved agriculture and new tree crop practices, and to discuss with the personnel there about all their improved farming technologies. Following a guided tour of all the MD-AFRC demonstration sites, I was impressed with the improved techniques and learnt a lot about the benefits of agroforestry and sustainable farming. I requested for an opportunity to enhance my knowledge and skills by any means, and just a few days later, I was called to participate in a training on bio-intensive and climate resilient farming techniques. In line with my interest, MD-AFRC provided me with the pathway that I had looked for so long, and I have been able to move ahead utilizing the limited resources that I have.

Right after the training and strong motivation, I invested my money, labour and time to follow this new and improved farming system, using all the knowledge and skills provided to me by the MD-AFRC staff. I started cultivation of fruits, nuts and other high value tree crops in my farm, using bio-intensive techniques. I have definitely made progress, and in a relatively short space of time, I can see that the survival status and growth of the planted fruit and nut seedlings, is very satisfactory compared to the traditional techniques I was using before.



Together with 5 of my neighbours, I have also started organic vegetable farming through a system of sharing our land.

My connection to MD-AFRC changed my perception of farming and showed me the right way to improve my livelihood. I acknowledge that though it takes some time to reap real benefits from the new agriculture techniques that I have learnt and adopted, it definitely facilitates in the optimal utilization of resources for the maximization of crop, fruit and nut production. I have now successfully utilized the barren areas on my farm, deemed useless before, for tree crops and vegetables. As I consider myself a progressive farmer, I am now optimistic towards a better livelihood from agriculture in the near future. I see that my family is on a path toward prosperity from the farming activities I have initiated, and I am hopeful for the future and want to flourish to my fullest potential”.

D. Deviation from the Working Plan

Planned trainings especially specialist trainings, awareness raising on impacts of chemical fertilizers and pesticides on human lives and soil, organic outlet centre establishment and organic certification process have been seriously affected by the pandemic repercussions. Hopefully, major steps forward with these activities will be possible in 2021.

E. Next Steps

Depending on the local status of the pandemic, and the date of arrival of the promised vaccines in rural Nepal, the following activities will be prioritized. Social distancing and safety measures in gatherings, meetings and trainings will continue to be observed throughout 2021.

- Home visits to local farmers to observe and monitor seedling plantation and survival status in coordination with MDM agriculture section.
- Trainings, orientations and awareness raising activities.
- Field based and monthly training and orientations to farmers along with plantation of the seedlings and saplings applying.
- Continued management and extension of the satellite nurseries.
- Field visits for organic certification process.
- Establishment of an outlet centre for organic products, when the situation permits.
- Continuation of monthly training in the MD-AFRC.
- Education and awareness-raising on impacts of pesticides and chemical fertilizers, and the importance of organic fertilizers.
- Finalization of training manuals, and booklet preparation.
- Continuation of regular radio programmes.
- Regular field monitoring visits.
- Continued coordination and cooperation with the local government on all aspects of the project, especially for the extension of the satellite nursery programme.
