

# NEWS LETTER

CEAPRED

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## Training on Coffee Orchard Management to Extension Service Provider - Phase I & II

The first phase of training on Coffee Orchard Management was held during 13<sup>th</sup> -19<sup>th</sup> September, 2017. The seven days training on Coffee production and processing was organized for 10 extension service providers (ESPs) from Kaski and Syangja districts of Western Nepal at Regional Agricultural Research Station, Lumle of Kaski. The training mainly focused on Orchard management, disease management, primary processing, marketing, supply chain and expansion of coffee orchards with marketing opportunities. The main objective of the training was to enhance the capacity of extension workers on coffee production by delivering required knowledge and skills for adequate and efficient service delivery in the rural areas as frontline support to the farmers.



*Practical training on pruning in coffee orchard*

Similarly, the second phase of training on Coffee Orchard Management was held on 16<sup>th</sup> – 22<sup>nd</sup> November, 2017. The training was organized for seven days at Chetana Kendra, Banepa for 24



participants. The practical training was organized on the coffee plantations at Bela, Kavre. The training included 20 ESPs selected by the project, five each from Kavre, Sindhupalchok, Nuwakot and Lalitpur and four ESPs supported by private entrepreneurs. Thus, a total of 24 ESPs were trained for seven days on various aspects of coffee orchard management and its production/processing aspects. The training mainly focused on orchard management, disease management, primary processing, marketing, supply chain and marketing opportunities. The main objective of the training was to enhance the knowledge and skills of extension service providers on coffee production management, which will be used as frontline support for the coffee farmers.

Major Highlights of the training:

1. Preparation and uses of Jholmal in coffee Farming
2. Training and pruning in coffee orchard
3. Practice on preparation and application of Bordo paste and Bordo mixture
4. Disease identification and management
5. Organic soil fertility management for coffee orchards
6. Coffee farm economics and business plan development

## International Hindu-Kush Himalayan (HKH) Resilient Conference held at ICIMOD

ICIMOD (International Center for Integrated Mountain Development) organized Hindu-Kush Himalayan conference during 2<sup>nd</sup>- 6<sup>th</sup> Dec. 2017 at ICIMOD headquarters, Lalitpur, Nepal. The conference brought more than 300 scientists, development practitioners, policy makers and implementing partners from all over the world. CEAPRED (Center for Environmental and Agricultural Policy Research, Extension and Development) as a partner NGO for the joint initiatives on Resilient Mountain Villages Project being implemented as pilot program in Kavre district since 2014 was invited to participate during the various events like (LAKI, Market place and plenary discussions) in the conference. Staffs from the RMV project were invited to showcase various technologies being adapted by farmers in the district. It was a fruitful conference and our staff participated in all the events.



## Opening of the conference Dec 2, 2017- Lima Adaptation Knowledge Initiative (LAKI) event



The conference initiated with LAKI event which was organized to fill the knowledge gap for adaptation to climate change at community. This was one extended event related to Lima agreement for climate change. On the event, Mr. Keshab Datta Joshi, Program Director, CEAPRED represented the resilient mountain group for pitched speech. He marketed the technologies focusing on the adaptation of Jholmal as one of the technologies for building resilient in mountain farming. Similarly there were participants from various HKH countries to represent various technologies for building resilient in the HKH region.

## Opening of the market place- 3<sup>rd</sup> Dec. 2017- The market place



Rt. Hon. President Ms. Bidhya Devi Bhandari kindly inaugurated the event. CEAPRED was honored to welcome president at its stall during her visit to market place. Mr. Keshab Data Joshi with the field colleagues Ms. Sumita Basnet and Ms. Laxmi Pariyar and Mr. Roshan Subedi welcomed Rt. Hon. President at the CEAPRED stall.

## Various events during 4<sup>th</sup> -6<sup>th</sup> Dec, 2017



During the conference various events were organized at various thematic groups. There were findings of various initiatives on resilience building and solutions for climate change. The objectives of these events were to bring the knowledge on climate change adaptation from all over the world to build the resilient mountains. Academicians, Researchers and development practitioners including representative from UNEP, UNFCCC, university professors and government entities from various parts of the world observed, evaluated and concluded on the solutions put forward. At one of the conference events Dr. Hari Krishna Upadhyaya, Chairperson, CEAPRED represented as plenary for gender empowerment. At the end of the conference, a list of 13 priority solutions was put forward among the participants which will be carried to the various forums in climate change adaptation. Dr. David Molden, Director General, ICIMOD thanked all the participants and congratulated organizers on successful organization of the event.

## Sahaj-Nepal Agricultural Market Development Program (NAMDP)

During Jul – Dec 2017, Sahaj-Nepal Agricultural Market Development Program has signed partnership agreements with 13 different organisations. These companies – Medivet Pharmaceuticals Lab, Paicho Pasal, Devkota Sabji Mandi, Krishak Beej Bhandar, CGNS Seeds, Mero Agro, Matribhumi Krishi Samagri Udhyog, NMS Agro, Adhunik Boer Bakhra Farm, Asmita Bakhra Farm, Development Voyage, Arbind Agro Centre, and NAFSCOL – are working with Sahaj to design and implement interventions for its Vegetable, Goat, Maize, Crop Protection and Post Harvest sectors. The interventions are designed

to ultimately benefit smallholder farmers in the country.



*Mero Agro Partnership agreement*

Swiss contact organised two trainings for its staff in July and August. Sahaj staff participated in the Inclusive Market System Development training held for five days from 23<sup>rd</sup> - 27<sup>th</sup> July. It was also attended by staffs of the project, co-facilitator partners from MADE Nepal, Mount Digit Technologies and DEVTEC Nepal. The training focused on developing a comprehensive knowledge of Inclusive Markets (also known as Making Markets Work for the Poor or Market Systems Development) principles and its various operational components among the participants.

The Monitoring and Results Measurement (MRM) training was held from 7<sup>th</sup> -11<sup>th</sup> August for Swiss contact staff and Sahaj's co-facilitator partners. The training was useful in developing understanding of MRM during the different stages of project implementation. Participants discussed the different MRM tools, good research practices, aggregation and sampling plan. The training also familiarised participants with Donor Committee for Enterprise Development (DCED) standards and its compliance criteria.

Sahaj supported Ministry of Livestock Development's 'Workshop on experience sharing and learning in the goat sector of Nepal' organized on 12<sup>th</sup> October, 2017. The half day workshop was attended by government officials and representatives from development agencies, Nepal Forage Development Association, Goat Entrepreneur Association and Goat Traders' Association. There were presentations from the Goat Development Program, Agriculture Food Security Project, Heifer International Nepal, Kisanakalgi Unnat Biu-Bijan Karyakram (KUBK),

Project for Agriculture Commercialization and Trade (PACT), and High Value Agriculture Project (HVAP). Sahaj will also facilitate farmers' access to affordable quality vegetable seeds, provide maize farmers access to soil testing facility and information on soil health management, and assist in better marketing opportunities for smallholder farmers growing indigenous crops through the efforts of these partnerships.



*Experience sharing and learning in goat sector of Nepal*

Sahaj also supported Market Development Forum Nepal (MDFN) to organise its 3<sup>rd</sup> annual conference on 19<sup>th</sup> Dec. 2017. The half day conference on 'State Restructuring and Innovations in Market System Development' was held at Hotel Himalaya in Kuponhole, Lalitpur. The event was attended by various government officials, representatives from donor organisations as well as different national and international organisations. There were three thematic presentations on Innovations in Access to Finance Sector, Innovations in Technical Education and Vocational Training Sector, and Innovations in Agriculture and Business Service Sector for the conference attendees. The conference discussed the changing government structure and the opportunities it brings to improve the work being done by the development sector.

## **Nepal Seed and Fertilizer Project**

### **1. Develop technical troubleshooting modules on vegetables (cauliflower, tomato and onion)**

Trouble shooting module (TSM) development for solving the maladies on the seed production of cauliflower, tomato and onion to make more access to seed producers and extension workers through mobile apps is one of the important project activities of CEAPRED in NSAFP.



Based on the comments received in Inception Workshop first technical text draft of TSMs of cauliflower, tomato and onion in Nepali and English version have been completed. The drafts of TSM of cauliflower, tomato and onion are still on the process of further review by the review team and CIMMYT as well.

## 2. Completion of rapid assessment survey

Rapid Assessment Survey in selected 13 districts was conducted to identify potential vegetable production pockets, existing production pockets, volume of production, and marketing arrangements for both fresh vegetable and vegetable seeds. The assessment recorded the access to inputs (primarily procurement places for seed and fertilizer) and outputs markets (produced Vegetable market), existing fertilizer application techniques (soil application or foliar), times (at what stage of plant and how many times), place (where fertilizer placed) and source (Urea, DAP, MOP, Boron, ZN<sub>2</sub>O<sub>4</sub> etc.). The survey also assessed the access to extension services (current information services available for vegetable production and potential role NSAF can play in vegetable advisory services). It also assessed the crop economics (total production, productivity, cost of production and profitability)

### Building Community Enterprises for Smallholders (BCES)

#### Field visit from WHH



Visitors from WHH observing seed production plot at Gharti Gaon, Nov, 2017

With the objective to review the implementation status of activities in the field, BCES, Salyan received visitors from WHH country office on November 9, 2017. Visitors include Asja Hanano (Country director, WHH) and Sushil Raj Ghimire

(Program Manager, BCES). They observed the Spice Community Enterprise, community irrigation scheme and interacted with farmers at Dhorchour-1, Patera. They also observed the seed production plot and Seed CE at Bagchour-4, Gharti Gaon.

#### Coordination meeting

Two formal program of coordination meeting were done with the objective to share project activities with representative of Municipality/ Rural Municipality as well as to have good coordination and collaboration for effective and efficient use of available resources and minimize duplication of work.

#### Capacity development of community enterprise

With the objective to enhance capacity of Community Enterprise (CE) for handling as well as maintenance of grinding cum husking machine, one day training was conducted at Spice CE of Dhorchour RM-1, Patera. Managers as well as other potential person were also invited. There were a total of 11 (F/M: 2/9) participants in the training. Furthermore, four days residential training on 'Record keeping and Account operation' as conducted on 17<sup>th</sup>-20<sup>th</sup> Dec. 2017 at Shreenagar, Salyan. There were 18 (F/M: 7/11) participants in the training consisting of CE proprietor, as well as others who could positively contribute for the smooth operation of CE. Resource person for the training was hired from Cooperative Division Office, Ghorahi, Dang. Training included theoretical as well as pragmatic sessions.



Participants of record keeping and account



## Resource farmers training

Capacity building of Resource farmers is a continuous process, where all RFs are trained every month on different topics so as to increase their technical skills and knowledge on different improved practices, tools and technologies and methods through trainings and demonstrations. Project staff trained them on different topics at field, which is later transferred to their respective group members through FFS. During this period, two different trainings on 'Soil Solarization' and 'Good nutrition' were also conducted.



*RF training, Bangelakhuri, Nov, 2017*

## The Asian Vegetable and Mango Integrated Pest Management (AVMIPM)-Innovation Lab Nepal

### 1. Research trial on package development of french bean and onion



*Seedlings of Onion at Naubasata, Banke and Goramare Surkhet*

Research trial on French bean and Onion was set on 4 locations (Sitapur, Bageshwori, Naubasta

and Kamdi) of Banke districts. In each location, 6 farmer's field with 100 m<sup>2</sup> area were selected and segregated to 50 m<sup>2</sup> for IPM and farmers practice. Chaumase variety of French bean and Nashik Red variety of onion was selected and sowed on Oct 8 and Nov 20 respectively for the research trail with the objective to record major disease pest incidence and yield. French beans are now at fruiting stage on every location whereas onions are in the seedling stage and will be transplanted to the main field by mid of January on every location on both the districts.

### 2. Management of fruit fly and virus in cucumber and bitter gourd

A total of 4 farmers from 2 locations (Bageshwori and Naubasta) at Banke and 4 farmers from 4 locations (Baghkhori, Sano hare, Sadhikhola and Jhilmile) were selected and were provided with the poly pots and seeds required for the trails. Palee variety of bitter gourd was selected. The test farmers were trained to prepare seedling in poly pots. The seed was sown on the poly pots on December last week on both locations.

### 3. Training/ Demonstration of IPM packages in farmers group (cauliflower/ bittergourd)



*Cucumber seedling on plastic tray at Banke*

Training and demonstration was carried out on 5 farmers group at Banke and Surkhet. During the training and demonstration program the farmers were demonstrated to prepare the seedling on plastic tray and poly pots to sow the seeds of cauliflower and cucurbits respectively. The farmers were demonstrated with the IPM tools that can be



used in the crops during their cultivation period. They were also taught and demonstrated to prepare the tricho-compost on both the districts.

### Projects Completed during this Quarter

#### A. Asia Innovative Farmers Activity - Pest Exclusion Net (AIFA-PEN)

Pest Exclusion Net (PEN) component under Asia Innovative Farmers Activity (AIFA) was a one year (Oct 2016 – Sep 2017) initiative in Nepal funded by USAID and implemented by Centre for Environmental and Agricultural Policy Research and Extension and Development (CEAPRED) in partnership with Winrock International (WI). AIFA carried out activities to increase agricultural productivity, primarily in horticulture. The role of AIFA was to facilitate the exchange of agricultural innovation and technology and promote proven technologies largely through market-led approaches that rely on viable private sector partnerships. Some of the advantages of PEN are as follows:

- i. The products are pesticide free which reduces health hazards.
- ii. The costs calculated are including the family labor. Thus, it has provided employment to the family members and can help reduce migration for employment.
- iii. The participant farmers also consume fresh and pesticide free vegetables which creates food and nutrition security



*Research Trials of the vegetables inside and outside the Net structures*

With an objective to verify the productivity and profitability of some of the highly demanded vegetables in market by growing them under Pest Exclusion Net structures, CEAPRED had conducted on farm action research trials. The trials were conducted in two representative ecological zones: Dang for Terai and Surkhet for Mid-hills. The study was conducted on four major crops: Tomato and Cauliflower during winter season (Nov – Feb) of 2016/17 and Cucumber and Brinjal during summer (March- Aug) of 2017. The trials were conducted by comparing the yield and economics of all the crops between net structure and farmers 'control plots at both the sites in all trials. A total of three representative farmers participated in implementation of the action research.

Based on the action research conducted under two ecological zones in Nepal, Tomato crop during winter was found more profitable (higher B:C ratio, higher net income and more yoked) under PEN structure as compared to farmers practice (control plots) and this crop had better performance against other crops of the season (cauliflower). Similarly, during summer season, Cucumber had higher yield, (net income and B: C ratio) under PEN compared to same crop under farmers condition (control plots) and other crops of the same season. Therefore, the best and most profitable cropping pattern was Tomato (October – Feb) followed by Cucumber (Feb-July). However, performance of Brinjal was not satisfactory at both the sites. The production as well and net benefit under the NET structure was found less than control plots. As per the observation of the farmers and the project field staff, the main reason was less pollination inside the nets due to absence of the insects for pollination.

#### B. Rural livelihoods and climate change adaptation in himalayans (Himalica)

The Rural Livelihoods and Climate Change Adaptation in Himalayas (HIMALICA) pilot project was being implemented by Center for Environmental and Agricultural Policy Research, Extension and Development (CEAPRED) in partnership with International Center for

Integrated Mountain Development (ICIMOD) in Triyuga Municipality, Rauta VDC and Saune VDC of Udayapur District, Nepal since July 2015 – Dec 2017 for a period of 30 months.

CEAPRED in partnership with ICIMOD/HIMALICA had been piloting on Rural Livelihoods and Climate Change Adaptation–Himalica project in Udayapur, adopting Climate Smart Agriculture Practices in the selected sites of the district in the downstream of Koshi River Basin. Farmer centric pilot approaches on climate resilient technologies, which would be relevant to the mountain perspective, to improve the resilience of rural communities to climate change would be further disseminated with the emphasis on improving the livelihoods of the farming communities to the effects of climate change.



*A farmer adopting both the practices of plastic tunnel house and plastic mulching in his field.*

Agricultural practices which would generate cash income as early as possible was given priority, for which vegetable farming was promoted as the first technical intervention following the organizational strengthening of the farming communities. Hence, to initiate vegetable farming activities, capacity development of farmers through appropriate trainings was important, for which, an external technical assistance was sought to develop a ready to refer and use manual including the package of practices (PoPs) on vegetable and spices cultivation, harvesting, post harvest management and marketing, adopting the principles and practices of climate smart

perspective for the field technicians and farmers of the area.

The major expected outcomes of the pilot project was “ increased income of poor households including women and deprived communities through commercialization of vegetable farming with adoption of climate resilient value chain approach, and capacity building of the stakeholders to sustain the results”.

In the period of 30 months, remarkable objectives have been achieved. The broader level objective of the intervention was to build community resilience, reduce risks and improve livelihoods by supporting target beneficiaries to produce more food with less water and other climate adaptive agricultural practices, which has been showing excellent results. Other such noteworthy achievements are mentioned below:

- Promoted and developed pro-poor value chains of mountain niche products and services as an adaptation strategy, ensuring the sustainable and equitable management of the natural resource base (including a strong element of cooperation between local community and the private sector).
- Promoted the diversification of livelihood opportunities through identification of new and risk reducing income and employment opportunities in mountain areas (e.g. linking value chain development to investment and employment generating activities; market-oriented services such as access to information, financial services and micro-finance; leverage financial and social remittances from labor migrants).
- Supported the use of ecosystems services such as landscape and biodiversity for recreational activities with direct community involvement and benefits.
- Enhanced sustainable practices in the management of natural resources and identification of alternatives at the local level (e.g.: use of fallow or degraded lands and forests, improved farming and water management systems, but also improved planning capacity).





*Plastic Mulching practice in tomatoes*



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