

# Report on

**SAARC Regional FOLLOW-UP TRAINING**

**Developing regional agri-business, product development and marketing**

**25-28 February 2025 | ICIMOD headquarters, Nepal**



## **Background**

The South Asian region is one of the most populous in the world, with a population of 1.6 billion, representing 24.2% of the global population. The agriculture sector is a major source of employment, providing jobs for 70% of the population and contributing between 24-50% of the region's GDP. Nearly 60% of the population relies on agriculture for their livelihoods, with an average landholding size of less than one hectare. Over 25% of the population lives below the poverty line and faces acute food shortages for much of the year. Moreover, the region is highly vulnerable to malnutrition.

Fruits and vegetables play a significant role in the agricultural economy of the SAARC Member Countries. These countries produce a substantial quantity of both indigenous and exotic varieties of fruits and vegetables. In recent years, most SAARC Member Countries have seen positive growth in fruit and vegetable production, highlighting their increasing importance in boosting farmers' incomes, alleviating poverty, and improving the nutritional quality of diets. Vegetables, in particular, are prioritized due to their relatively lower risk compared to fruits. However, the agricultural sector in the region faces several challenges, including high post-harvest losses, inadequate processing facilities and skills, weak supply chain linkages to specialized markets, a lack of modern production and processing technologies, and high input costs.

In this context, ICIMOD has gained valuable experience in working on the value chain development of crops and vegetables, agri-business, marketing, climate change adaptation, and livelihood improvement through income-generating activities in South Asia. In collaboration with its partners, ICIMOD has developed a set of best practices for various agricultural crops, aiming to enhance knowledge and experience sharing among regional participants.

Against this backdrop, in collaboration with SAARC Agriculture Centers project Livelihood Enhancement of Small Farmers in the SAARC Region through Small-Scale Agro-business, Focusing on Value Chain Development, ICIMOD organized a training to disseminate these best practices to promote a sustainable agroprocessing sector in the region. Additionally, the training strengthened the capacity of regional actors in value chain, ICIMOD and its partners, enabling them to develop future projects focused on reducing post-harvest loss in the region.

Building on the learnings and experiences of SAARC Agriculture Centre (SAC) and ICIMOD in value chain development and marketing, a regional training program on "Developing regional agribusiness, product development and marketing" was organized to facilitate the regional dissemination of knowledge while strengthening market linkages between technology/solutions providers, distributors, and users.

## Objectives

- To build the capacities of implementing agencies in agribusiness management, with a focus on value chain development.
- To enhance knowledge of relevant technologies and processes within the agro-processing sector.
- To share success stories from SAC and ICIMOD value chain related projects.

## Participants

This training benefitted together a total of 16 (8 male, 8 female) participants from government representatives/focal points of the SAARC member states, ICIMOD staff and its stakeholder (Annex 1).

## Key Highlights

This event highlights the significant progress and challenges in value chains of dairy, banana, moringa, FMCG products like biscuits, cookies, etc. Across Nepal, India, Bangladesh, Sri Lanka. Training in value addition and processing has empowered entrepreneurs and farmers, particularly in India and Bangladesh, where advanced processing systems and strong market linkages have boosted employment and income. However, Nepal and Sri Lanka lag in infrastructure with inadequate storage and logistics leading to post-harvest losses.

The dairy industry in Nepal, contributing 6% to the GDP, faces challenges such as high production costs, adulteration, and limited cold storage. Similarly, smallholder farmers struggle with fragmented land holdings, market access, and the adverse impacts of climate change. Experts also emphasize the need for improved packaging, certification systems, and legal registration to enhance product value and trust among customers. The traditional supply chains are inefficient, leading to significant economic losses for agribusinesses.

The post-harvest losses significantly affect agribusiness profitability by increasing input and transport costs, contributing to higher carbon footprint and raising food prices for customers. The lack of standardization and harmonisation of quality standards between local and international markets further complicates trade. There is a need to invest in packhouses, ripening chambers, and digital solutions to improve supply chain efficiency and reduce losses. Additionally, enhancing post-harvest management infrastructure can help extend shelf-life and minimize waste. Nepal's agribusiness sector faces challenges due to the lack of standardization for vegetables, fruits, and packaging facilities, as well as limited adoption of post-harvest technologies. Key technologies in demand to reduce post-harvest losses include solar dryers, hermetic bags, and Coolbot technology for preserving fruits and vegetables.

Other highlights are as follows:

### Agro-Processing Technologies

- Different agro processing technologies were discussed in detail such as Hot air drying (drum, tray drying for various products), Low temperature & low humidity drying, Freeze drying and vacuum drying.
- Freeze-drying is the most expensive one and products require specialized packaging as well.

### Post-Harvest Infrastructure and Value Addition

- Importance of timely harvesting and proper handling for quality assurance was discussed.
- Nepal experiences high post-harvest losses due to multiple factors, and research in this area remains underfunded.
- The government supports agro-processing through equipment provisions, funding, and subsidies for infrastructure development.
- Adoption of multi-chamber cold storage inspired by India's hybrid model is convenient in Nepal.

### Value Chain Strengthening and Agribusiness Promotion

- ICIMOD's Initiatives: examples of branding of the mountain product and strengthening the value chain through diversification, such as not only focusing of primary product but also product from other part of plant and residues.
- Focus should be on addressing weak agricultural value chain linkages.
- Need for consumer trust, proper branding, and packaging.
- Organic certification, quality standards (ISO, HACCP), and traceability issues.
- Up to 40% post-harvest losses in fruits and vegetables.

### Social Enterprises and Agri-Business Models

- Krishidoot Concept: an agriculture leader who plays a vital role in strengthening agricultural value chains by providing farmers with market linkages, and inputs. They act as intermediaries between farmers and markets, helping to reduce the influence of middlemen and ensuring better prices for agricultural products.
- Khajuriko Success Story:
  - Transformation from a small bakery to a major taxpayer.
  - Compliance with legal regulations and CSR initiatives.
  - Challenges with intra-trade policies and labor costs.

### Livelihood Enhancement in South Asia

- Under SAC s project example of development of value chains for coconut, moringa, ginger powder was shared and digital platforms for marketing and product diversification were discussed.
- Participant reported establishment of market stalls and branding strategies for regional products as one of the marketing strategies in rural areas.

### Quality Control in Dairy and Agro-Processing

- Nepal's dairy sector: 6% contribution to GDP, 1,850 cooperatives are actively working.
- Challenges in value chain are high production costs, informal market bypassing regulations.
- ICIMOD's role in supporting yak milk value chains and preventing inbreeding was shared by the facilitator.

### Agricultural Startups and Market Specialization

- From standpoint of a startup practical experience of working in Nepal as agriculture professional was shared. The company works with perishables commodities from small farmer and manufacture natural cosmetics.
- The company representative shared its learning journey, highlighting how recognizing operational inefficiencies and high costs led to a shift in strategy. Instead of expanding production independently, they began sourcing from smallholder farmers. This approach has enhanced market differentiation, product excellence, efficiency, and cost control.

### Organic Certification and Supply Chain Management

- In international third-party certification, group certification models reduce costs for small farmers yet still expensive for firm.
- Need for improved traceability in organic certification in the HKH region
- Lack of certified organic inputs in the Nepalese market.
- PGS certification system are appropriate only for local market not for the international trading.

### Agro-Processing Challenges and Opportunities in Nepal

- In Nepal in context of post-harvest loss there is up to 40% perishable loss, equivalent to 7% of GDP.
- The session discussed on opportunity and challenges: for legume, oilseed, sugarcane, horticultural crop, livestock and fisheries, indigenous crops.
- Biofortification as a cost-effective nutrition intervention.
- Highlighted need for mechanization, AI-based digital technologies, and blockchain for transparency.
- Major Infrastructure and market access challenges were listed as: transportation, storage deficiencies, policy gaps.

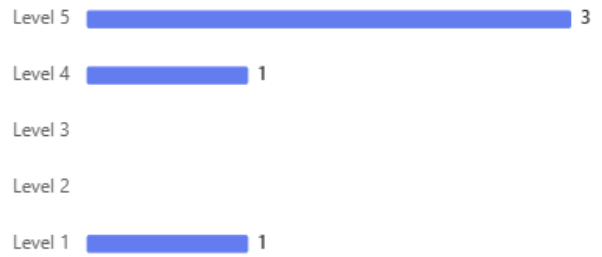
### **Training Evaluation**

Training evaluation was done online survey using MS Office tool. Following are the parameter and their average rating.

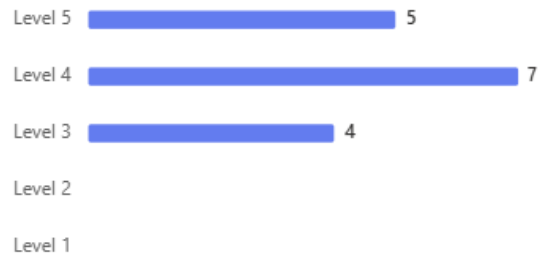
Relevance of training topics to your work (Rating Scale: 1 - Poor, 5 - Excellent)



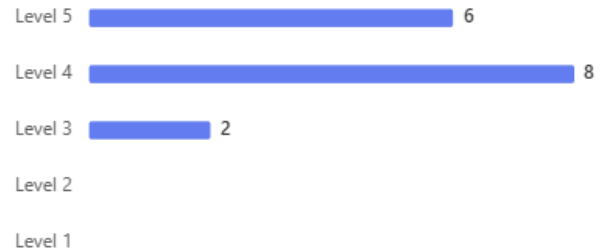
Relevance of field visits (Rating Scale: 1 - Poor, 5 - Excellent)



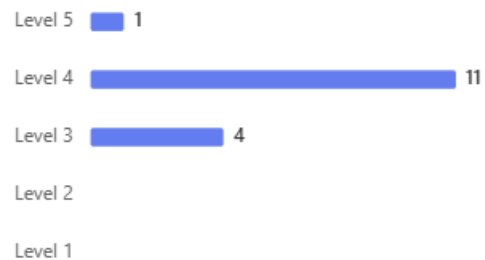
Usefulness of case studies and examples (Rating Scale: 1 - Poor, 5 - Excellent)



Clarity in Presentation (Rating Scale: 1 - Poor, 5 - Excellent)



Rate your cross learning experience throughout the event (Rating Scale: 1 - Poor, 5 - Excellent)



What are the barrier in policy formulation and implementation in agri business sector?

6 respondents (38%) answered policies for this question.



What are the challenges of organic certification and ecological certification process in the South Asia region?

4 respondents (25%) answered awareness for this question.



What were the most useful aspects of the training for you?

5 respondents (31%) answered value addition for this question.



### Rating of different session of the training (16 respondent)

Session topic	Average rating
Drying and dehydration technology of fruits and vegetables (Virtual mode)	4.19
Value addition opportunities near to the farm/or at farm gate/ postharvest infrastructure for agribusiness promotion.	4.00
Processing technique for preparation of quality vacuum fried chips products (Virtualmode)	3.88
Value chain analysis and agri-food value chain management	4.33
Experience sharing (lessons learned) on the livelihood enhancement project	4.19
Challenges and opportunity of value addition for fruits and vegetables	

Contemporary leadership challenges in food and agribusiness management/ value addition opportunities near to the farm/or at farm gate, Krishidoot, KCC	4.38
Products grading, packaging, marketing, and branding/ advancing value chain development from tradition to home grown brands with focus on product grading, packaging, marketing, and branding	4.25
Product promotion and market linkage and Challenges of the market linkage under the livelihood project	4
Ensuring quality control for value-added products (Nepal dairy)	4.25
Doing less to do more: How specializing in one stage of the supply chain fuels innovation & growth in agriculture	4.25
Organic and ecological certification	3.75
Agro- processing in Nepal: prospects and challenges	4.2
Agro-processing in the context of loss and waste of Agri-food	4.19

### Conclusion and way forward

Hence, the event successfully trained participants on agricultural value chains, relevant agro-processing technologies and processes, and shared success stories from SAC, ICIMOD, and private sector value chain projects. For the way forward following points were highlighted:

- For interested organizations SAARC Development Fund (SDF) funding mechanism could be accessed by organization on 50-50 mutual basis with detailed documentation requirements. Templates available in public domain with guidelines for proposal submission.
- Nepal and Bangladesh highlighted gaps in policy related to post harvest management and the limited opportunities for contribution. This issue could be further discussed, leading to the development of a targeted initiative.





### Annex 1: Name list of Participant

Name	Gender	Organization	Designation	Country	Remarks
Aminath Sana	Male	Ministry of Agriculture and Livestock	Assistant Agriculture Officer	Maldives	Trainee
Araniko Rajbhandari	Male	Nepal Dairy Pvt. Ltd.	Director	Nepal	Session lead
G.N. Arunathilaka	Male	Department of Agriculture Ministry of Agriculture, Livestock, Lands and Irrigation	Additional Director	Sri lanka	Trainee
Januka Dahal	Female	Tribhuvan University	Assistant Professor	Nepal	Trainee
Jibin Thomas	Male	M S Swaminathan Research Foundation Kuttanad Centre, Perunna - Changanassery	Coordinator	India	Trainee
Kuenga Tenzin	Male	Department of Agricultural Marketing and cooperatives Ministry of Agriculture and Livestock	Post Production Supervisor	Bhutan	Trainee
Md. Harunur Rashid	Male	SAARC Agriculture Centre	Director	Bangladesh	Organizer
Md. Younus Ali	Male	SAARC Agriculture Centre	Regional Project Coordinator Livelihood Project	Bangladesh	Organizer
Namrata Basnet	Female	R&D Innovative Solutions Pvt. Ltd.	Project Coordinator	Nepal	Trainee
Narendra Singh	Male	Lamjung Campus	Assistant Professor	Nepal	Trainee
Nowsher Ali Sarder	Male	SAARC Agriculture Centre	Consultant Project Endline Survey	Bangladesh	Organizer
Prakriti Gautam	Female	Khetapati Organics Pvt. Ltd.	Founder	Nepal	Session lead
Rajesh Kunwar	Male	Paklihawa Campus	Assistant Professor	Nepal	Trainee
Ramesh Maharjan	Male	The organic valley pvt ltd	Organic and ecological certification Manager	Nepal	Trainee
Roman Karki	Male	National Food Research Center, Nepal Agricultural Research Council	Senior Scientist	Nepal	Session lead
Seenivasan Ramalingam	Male	M S Swaminathan Research Foundation Madurai, Chennai, India	Coordinator	India	Trainee
Suraksha Baskota	Female	Kaule Hills Agroherbs Pvt. Ltd.	Shareholder and city contact office manager	Nepal	Trainee

Utshav Pandey	Male	Lamjung Campus	Teaching Assistant	Nepal	Trainee
Kishor Dahal	Male	Tribhuvan University	Asst Professor	Nepal	Session lead
Sabnam Shiwakoti	Female	MoALD	Joint Secretary	Nepal	Session lead
Jagan Nath Maharjan	Male	Khajiurico Pvt. Ltd.	Managing Director	Nepal	Session lead
Sunita Nhemupukhi	Female	Krishi doot	CEO	Nepal	Session lead
Ferdos Chaudhary	Male	Bangladesh Agricultural Research Institute	Professor	Bangladesh	Session lead (Virtual)
Abul Kalam Azad	Male	ICIMOD			Organizer
Anu Joshi Shrestha	Female	ICIMOD			Organizer
Oshin Sharma	Female	ICIMOD			Trainee and reporter
Krishna Dhakal	Male	ICIMOD			Trainee and reporter
Barsha Rani Gurung	Female	ICIMOD			Trainee and reporter
Kaweri Bhandari	Female	ICIMOD			Trainee and reporter
Shrinkhala Shrestha	Female	ICIMOD			Trainee and reporter

## Annex 2: Social media



Narendra Singh

28 February at 22:41 · 🌐



The SAARC Agriculture Centre in collaboration with ICIMOD, successfully concluded the SAARC Regional Follow-up Training on "Development of Regional Agribusiness, Product Development, and Marketing" from February 25-28, 2025. This training program was designed to improve the livelihoods of small farmers across the SAARC region by focusing on small-scale agribusiness and value chain development. Over the first three days, participants engaged in experiential learning sessions and heard success stories from various stakeholders, covering topics such as agribusiness processing, marketing, value-added product development, post-harvest loss management, organic certification etc.

A field visit to ICIMOD's Living Mountain Lab provided for further practical insights. The four-day training program concluded with a closing session at the SAARC Secretariat with closing remarks by Secretary General of SAARC H.E. Mr. Md. Golam Sarwar

I am very appreciative of the opportunity to participate in this highly informative and beneficial training.

Thanks very much to all helping hands.

