



Course Report on

**International Programme on
“Dairy Development through Cooperative Business
Model”**

At NDDB, Anand

**(26th – 28th February 2024)
(CICTAB-NDDB-VAMNICOM)**

**Centre for International Cooperation and Training
in Agricultural Banking**

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Background

Cooperative concept and the system of cooperative societies were introduced, to the Indian economy by the British colonial Rule at the outset of the 20th century. In the changing economic environment, Cooperative Business Model is still valid and functioning in appreciated level in India. The Government of India has set up a separate Ministry of Cooperation in July, 2021.

There are 95,995 primary level agricultural Cooperative, 17 National level Federations, 351 District Central Cooperative Banks and 33 State Cooperative Banks are in India. Maharashtra State is a cooperative hub in India. There are 141598 Dairy Cooperatives in India and Gujarat State is a Dairy cooperative hub of India

About CICTAB

Centre for International Cooperation and Training in Agricultural Banking (CICTAB) was set up as a special initiative of FAO of United Nations and Ministry of Agriculture, Government of India way back in 1983. Currently, CICTAB has 39 Member institutions in SAARC region countries including India, Bangladesh, Nepal, Sri Lanka, Bhutan and Maldives. The centre is dedicated for the training in agricultural banking and other related areas in these member institutions. CICTAB through its member institutions promotes International cooperation in the establishment and expansion of facilities for training in agricultural banking & Facilitates exchange of experience and information on harnessing of National systems of finance and banking for agricultural and rural development.

About the Ministry of Cooperation

The Ministry of Co-operation is a ministry under the Government of India which was formed in July 2021. The ministry provides a separate administrative, legal and policy framework for strengthening the cooperative movement in the country. The ministry's creation was announced on 6 July 2021 along with its vision statement of "Sahkar se samridhi". Before the creation of this ministry, the objectives of this ministry were looked after by the Ministry of Agriculture.

The ministry works in strengthening co-operatives at the grassroot level, working to streamline processes for 'Ease of doing business' for co-operatives and enabling the development of Multi-State Co-operatives (MSCS).

About NDDB, Anand

The National Dairy Development Board's (NDDB) creation is rooted in the conviction that our nation's socio-economic progress lies largely on the development of rural India. The Dairy Board was created to promote, finance and support producer-owned and controlled organisations. NDDB's programmes and activities seek to strengthen farmer owned institutions and support national policies that are favourable to the growth of such institutions. Fundamental to NDDB's efforts are cooperative strategies and principles.

NDDB's efforts transformed India's rural economy by making dairying a viable and profitable economic activity for millions of milk producers while addressing the country's need for self-sufficiency in milk production.

NDDB has been reaching out to dairy farmers by implementing other income generating innovative activities and offering them sustainable livelihood.

About VAMNICOM, Pune

Vaikunth Mehta National Institute of Cooperative Management is a premier National Institute under the Ministry Of Cooperation, Govt of India. It was conceived as an intellectual nerve centre for the co-operative movement. It caters to management development through training, education, research and consultancy needs of various co-operative organizations, government departments and other national bodies.

About the Programme

The International Programme on "Dairy Development through Cooperative Business Model" was organised at National Dairy Development Board, Anand, Gujrat during 26th – 28th February 2024 in collaboration with NDDB and VAMNICOM, Pune.

The programme was inaugurated by Ms. Anindita Baidya Deputy Group Head - Cooperative Training, NDDB, Anand in presence of Shri Rahul R Nair, Manager - Cooperative Training NDDB, Anand and Ms. Smita Kadam, Research officer, CICTAB, Pune.

Total 39 participants from Small Farmer Agriculture Cooperative Ltd., Nepal (NACCFL) (2); Sana Kisan Bikas Laghubitta Bittiya Sanstha Ltd., Nepal (SKBBL) (4); NEFSCUN (6); CCULB, Bangladesh (5); National Cooperative Concil (NCC) Sri Lanka (19); Land use and spatial planning authority, Ghana (1); Chama Youth Resource Centre Zambia (1); Ministry of Rural and Urban Development, Namibia (1) were participated in the programme.

For detailed List of Participants refer Annexure A.

Objective of the Programme

The broad objectives of the programme was:

- To sensitize the participants to the concept of Co-operative Business Model
- To visit and understand the role and functions of Dairy Co-operative sector in India.

Coverage of the Programme

The training programme was for Executives / Officers of Rural Financing Institutions from member countries of CICTAB and other countries of SAARC region and Trainers / potential trainers of Agricultural and Rural Financing Institutions.

- Role of Cooperative Business Model for enhancing rural livelihood by Mrs. Ananditya Baidya, CT Group, NDDB
- Visit to NDDB's Visitors' gallery for an over of NDDB's activities by Shri Rahul R, CT, NDDB

- An overview of international dairy scenario by Shri Vishwajit Bhattacharya and Shri Saurav Kumar, SA&P, NDDB
- Visit to a local Dairy Cooperative Society by Shri Rahul R, CT, NDDB
- Milch Animal health Care Management by Dr.Sagar Shrof, AH, NDDB
- Visit to AMUL Dairy Plant-III and museum by Shri Rahul R, CT, NDDB
- Technology in dairy sector-based business model: Role of NDDB: Use of Information Technology in dairy value chain by Shri AVR Kumar, ICT, NDDB
- Strategic Feed & older plan for augmenting animal's productivity and improving profitability by Dr. N. R. Ghosh, AN, NDDB
- Innovation and Convergence of manure management interventions : Visit to Mujhkuva & Slurry Processing Unit, Vasna by Shri Rahul R, CT, NDDB
- Visit to AMUL Chocolate Factory, Mogar by Shri Rahul R, CT, NDDB
- Brief about CICTAB by Smita Kadam, RO, CICTAB, Pune

For detailed Programme Schedule refer Annexure B.

Day 1 : 26th February 2024

Session -1

Topic : Role of Cooperative Business Model for enhancing rural livelihood by Faculty/Resource person : Mrs. Ananditya Baidya, CT Group, NDDB

Mrs. Ananditya Baidya briefed about the three days programme in detail. She further briefed that Dairying has become an important secondary source of income for millions of rural families and has assumed a most important role in providing employment and income generating opportunity. Indian Dairying is unique in more than one ways.

She explained that the Anand Pattern is an integrated cooperative structure that procures, processes and markets produce. Supported by professional management, producers decide their own business policies, adopt modern production and marketing techniques and receive services that they can individually neither afford nor manage.



Study Visit

Topic : Visit to NDDBs Visitors' gallery for an overview of NDDBs activities Faculty/Resource person : Shri Rahul R, CT

Shri Rahul R explained about the NDDBs Visitors' gallery for an overview of NDDBs activities. NDDB showcased their all activities like animal food and their nutrition management, precautions during the milk collection, Dairy farming, their brands which are working under the umbrella of AMUL, subsidiaries of NDDB working in the fruit and vegetable marketing for e.g. Mother Dairy, all the products produced under the NDDB brand. NDDB is also working in the

manufacturing of machineries of dairy unit.

All the information is showcased in the Visitors' gallery. It will help to know the dairy producers and farmers about the technology used in dairy sector, new innovations and standard operations of dairy farming.



Session -2

Topic : An overview of international dairy scenario

Faculty/Resource person : Shri Vishwajit Bhattacharya and Shri Saurav Kumar, SA&P

Shri Vishwajit Bhattacharya explained that from just 7 Million MT in 1951-52, the total milk production in India has reached 198 Million MT in 2019-20. India is World's largest consumer of milk. International dairy prices declined in 2020, mainly reflecting reduced import demand due to widespread economic downturns in importing countries. High export availabilities in exporting countries, caused by reduced internal sales and increased processing of less labour-intensive milk products, especially milk powders, also weighed on global milk prices. Despite many challenges to production due to the COVID-19 health crisis, world milk output rose in 2020, driven by increases in nearly all major regions. International trade in milk products also increased, driven by increased imports by a few countries in Asia and the Middle East.



Study Visit

Topic : Visit to a SANDESAR Milk producers Cooperative Society, Sandesar Village.

Faculty/Resource person : Shri Rahul R, CT

Shri Rahul R took all the participants for visit to SANDESAR Milk producers Cooperative Society, Sandesar Village. Sandesar dairy is the model dairy of this era. They were using the ERP system for all the day to day data work. The village was small having the facilities like Gram Panchayat, Ladies Club, Youth club, Tribhuvandas foundation health centre, Kindergarden, Primary School, Girls and Boys high school etc. The total population of the village was 8500 and 1205 total households. The village was 100% irrigated with the help of canals, wells with electric motors and tube wells. Main crops of the village were Wheat, Paddy, Tobbaco, Banana and Potato.

Dairy farming is the main business of the village. They are mostly having the Surti and Murrah breeds of buffalo and the cross breeds of cows with the indigenous breed they were using for milk production.

Shri Vinubhai Mafatbhai is the chairman of the dairy society and Shri Harishbhai Patel is the Secretary.

Fat percentage of the milk and quantity measured by ERP. Every 10 days money will be credited automatically to the farmers account. Animal feed also they are providing to the farmers. Veterinary doctors are available for take care of their animal health.

SANDESAR Milk producers Cooperative Society, Sandesar Village is the model dairy unit for the cooperatives who want to start the new dairy unit.



Day 2 : 27th February 2024

Session -3

Topic : Milch Animal health Care Management
Faculty/Resource person : Dr. Sagar Shrof, AH

Dr. Sagar Shrof had explained about the Milch Animal health Care Management. Identity the calf by tattooing in the ear at birth, and branding after one year is very much important. It is the unique identity number for animals like AADHAR for human beings. Dehorning the calf within 7-10 days after birth with red hot Iron or caustic potash stick or electrical method is

needed. Better Care and Management of heifer will give high quality replacement stock to the dairy farm. The following care and Management practices are recommended for a heifer. Feed the heifer sufficiently to produce normal growth. During the early stage relatively more protein than energy is needed. Most heifers grow well if excellent hay is given as much they can eat. The amount of growth depends upon the quality of forage fed. To get high milk during any lactation, the milch animal should be properly fed and necessary care and management practices should be followed.

Provide green succulent forage together with leguminous hay or straw to the extent of animal can consume, so that all its maintenance requirements are met with through forage only. Extra concentrate at the rate of 1 kg for every 2 to 2.5 liters of milk should be provided. Salt and mineral supplements should be given to maintain the lactation. Never frighten or excite the animals. Always treat them gently and with kindness.



Study Visit

Topic : Visit to AMUL Dairy Plant-III and museum

Faculty/Resource person : Shri Rahul R, CT

First we have seen the SARDAR PATEL ASSEMBLY HALL. Sardar Patel Assembly Hall was inaugurated on 31st October 2021 by Shri. Amit Shah, Hon'ble Home Minister and Minister of Cooperation, Government of India as a part of Amul Dairy's 75th Annual Foundation Day. Visitors can have a glimpse of Amul's golden history and various activities displayed at Visitor's lobby.

Further they had briefed about the story behind the formation of AMUL Dairy. Beautiful video about the history of Kaira District Milk Union foundation was very informative.

AMUL Dairy part-III is mainly for the production of Cheese and Milk powder.





Session -4

Topic : Technology in dairy sector-based business model: Role of NDDB: Use of Informatics Technology in dairy value chain

Faculty/Resource person : Shri AVR Kumar, ICT

Shri AVR Kumar explained that NDDB focuses on developing innovative technology driven solutions to fulfill the unique requirements of Dairy Co-operatives. It provides Technical Support by developing and implementing need-based applications to be used by stakeholders.

Activities:

- Create, update and manage secure, scalable, IT infrastructure and computing environment to improve the productivity of users.
- Computerisation of business processes.
- Setting up standards/specification and provide procurement support for all IT components to be provided to End Implementing Agencies.
- End user training / Knowledge Enhancement.
- Technical support for computerisation and setting up IT infrastructure to co-operatives/Producer Companies.

NDDB invented three types of applications:

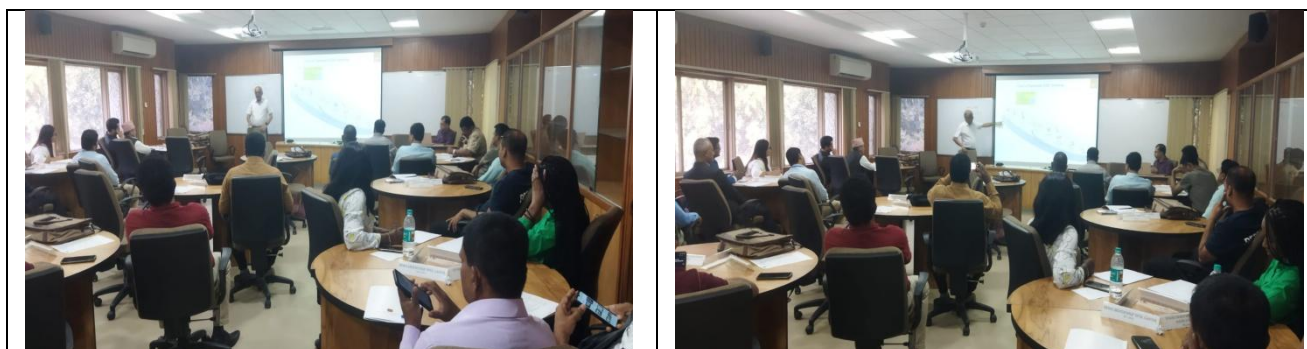
1. e-GOPALA it is for farmers. The e-GOPALA platform helps farmers manage their livestock including buying and selling of disease free germplasm in all forms (semen, embryos, etc); informs about availability of quality breeding services (Artificial Insemination, veterinary first aid, vaccination, treatment etc) and guides farmers for animal nutrition, treatment of animals using appropriate ayurvedic ethno veterinary medicine. There is a mechanism to send alert (on due date for vaccination, pregnancy diagnosis, calving etc) and inform farmers about various government schemes.

2. Robust Integrated Software (AMCS) Dairy Cooperative Society is the most critical component in the entire Dairy Value Chain which touches the life of millions of the small dairy farmers on a daily basis. Effective, efficient and transparent operation at the DCS level of utmost importance to ensure happy satisfied producer members. To ensure transparency in all operations at DCS level, NDDB has developed a **robust integrated software (AMCS)** for the complete requirements of the DCS operations which is **integrated at Union/Federation/National** Level apart from providing integration with financial inclusion and a **mobile application** for key informatics to various stakeholders.

The integrated AMCS solution has the following major Applications / components.

3. NDERP (NDDDB Dairy ERP) as per the mandate of NDDDB to strengthen farmer cooperatives/institutions and to provide cost-effective solutions, NDDDB has developed an open-source based ERP, NDERP (NDDDB Dairy ERP). It has been developed by customizing an open-source ERP namely ERPNext which is a free and open-source integrated Enterprise Resource Planning software from Frappe Technologies.

It has been customized based on the requirements of the Dairy Industry and integrated with AMCS (Automatic Milk Collection) software to provide an end-to-end solution starting from **Cow to Consumer** that can be used in Milk Collection, Processing and Distribution. NDERP is being deployed and maintained in its on-premises model, adding to capacity building and "Aatmanirbhar Bharat" objectives.



Session -11

Topic : Strategic Feed & fodder plan for augmenting animals productivity and improving profitability

Faculty/Resource person : Dr. N. R. Ghosh, AN

Dr. N. R. Ghosh explained about the Strategic Feed & fodder plan for augmenting animals productivity and improving profitability.

Calf starter: a special feed for growing calves

Quality protein meals, maize grain, wheat bran, bypass fat, vitamins, minerals and other feed additives

Calf fed on 'calf starter'

Strict Aflatoxin control and zero NPN content
Coated Sodium butyrate for faster rumen development

Feeding schedule for growing heifers

Period	Calf growth meal (kg/day)	Good quality hay* (kg/day)	Green fodder* (kg/day)	Mineral mixture (g/day)
27-60 week	1.5	2.0 - 3.0	8-12	25
61-90 week	2.0**	3.5 - 4.0	10-15	50
91-108 week	2.0**	3.5 - 4.0	15-20	75

Note: *Requirement of hay and green fodder may vary depending on the body weight of calf. **Feeding of calf growth meal may be adjusted based on the age at conception.

Module: 1000 female calves spreading over 70 to 80 villages
CRP is executed through dedicated field supervisors and officers of the participating milk unions.

- Providing good quality hay and green fodder as per the requirements
- Data recording on monthly interval

Nutrient requirements of dairy animals
(400 kg cow producing 10 litres milk with 4% fat)

Particular*	Requirement
Dry Matter (kg)	12-13
Total Digestible Nutrient (kg)	6.8
Crude Protein (kg)	1.44
Neutral Detergent Fibre (NDF) %	>32
Forage NDF %	>24
Starch %	18-20
Calcium (g)	51
Phosphorus (g)	32

Balanced TMR according to stage of lactation

Feed Ingredients (As such basis)	Early lactating (MY 20 L/d)	Mid lactating (MY 20 L/d)	Late lactating (MY 10 L/d)	Dry advanced pregnant
Concentrate premix (%)	29	24	18	12
Silage (%)	66	67	67	70
Dry fodder (%)	5	9	15	18
Total (kg/d) as such basis	41	33	23	21
Dry matter intake (kg/d)	20.7	16.5	11.2	10
Roughage to concentrate ratio	55:45	60:40	65:35	75:25

Minerals & Buffers

- Ordinary mineral mixture (BIS type)
- ASMM (area specific mineral mixture)
- Chelated minerals (Cu, Zn, Mn, Cr, Se)

Young calves (3-6 months) @ 25 g/d
Heifers, dry-pregnant animals, low yielders @ 50 g/d
Lactating animals @ 100-200 g/d (or 10 g/kg milk)

Buffer (NaHCO₃, MgO) @ 40-50 g/d

Day 3 : 28th February 2024

Study Visit

Topic : Innovation and Convergence of manure management interventions : Visit to Mujhkuva & Slurry Processing Unit, Vasna
Faculty/Resource person : Shri Rahul R, CT

Shri Rahul R, CT took the participants to study visit to know the innovation and Convergence of manure management interventions : Visit to Mujhkuva & Slurry Processing Unit, Vasna. NDDDB undertook an initiative to establish a Manure Value Chain. The model of manure management was established to enable the small holder women farmers to make effective use of cattle dung to meet their cooking fuel needs, reduce their drudgery in dung management, reduce the health hazards of kitchen smoke, mitigate the adverse impact on environment and provide an additional source of regular income through the sale of by-products of digested slurry of biogas plants.

Domestic biogas plants of small capacity (2 cubic metre) are installed by the women farmers in their backyard. Biogas generated is used as a clean cooking fuel. The bio-slurry produced by the biogas plants is primarily used in their own agriculture field while the surplus slurry is aggregated by the collective of women (or dairy cooperative) based on defined quality parameters through a transparent testing and measuring mechanism. Payment for procured slurry is transferred into the individual bank accounts of farmers.

Aggregated slurry is processed to manufacture solid and liquid based biofertilisers like Phosphate Rich Organic Manure (PROM), Liquid Micronutrient etc. and sold to farmers. Processing and marketing is either managed by the milk union or outsourced to an entrepreneur fully or partly. The surplus generated from the sale of products is paid back to the women farmers. This model offers dual benefits – on one hand the farmers receive additional income through the sale of bioslurry along with clean cooking fuel and on the other hand effective management of livestock dung leads to cleaner and healthier environment. The production and sale of organic manure from the bio-slurry also leads to a reduction in the cost of inputs in agriculture.

New National Biogas and Organic Manure Programme

NDDDB is one of the Main Programme Implementing Agencies for Central Sector Scheme “New National Biogas and Organic Manure Programme” (NNBOMP). NDDDB is implementing NNBOMP through the network of dairy cooperative milk unions / federations all over the country.

The objective of the scheme is to provide green and clean fuel for cooking, lighting and small power needs for individual households. There is immense potential in the country to generate biogas and biogas slurry at domestic level especially through the livestock dung. It is envisaged to implement NNBOMP in a manner wherein several biogas plants are established in contiguous villages. This would provide an opportunity to procure and process bio slurry into value-

added products such as organic manure. The scheme document, relevant circulars and progress of implementation can be accessed here.



Visit to domestic biogas plants of small capacity (2 cubic metre) at Mujkua, Guujrat



Visit to the slurry processing unit biofertilizers production unit – Sudhan Slurry Processing Unit

Study Visit

**Topic : Visit to AMUL Chocolate Factory, Mogar
Faculty/Resource person : Shri Rahul R, CT**

Shri Rahul R took the participants to the Kaira District Co-operative Milk Producers Union Limiteds Tribhuvandas Food Factory at Mogar near Anand on 1.50 lakh square feet area with an investment of Rs 150 crore. Amul Dairy has developed 40 new types of chocolates that were manufactured in this plant.

Looking at the growing demand of chocolates especially in the premium segment, the dairy union, which is a member of the Gujarat Co-operative Milk Marketing Federation (GCMMF) – the apex body that markets brand Amul has increased its chocolate manufacturing capacity from 4,000 tonnes per annum to 20,000 tonnes per annum. "It is a fully automatic plant with latest machinery and equipments from Europe to handle material to final product," said Amul Dairy's managing director Dr K Rathnam.

"Most of the chocolates presently consumed in the country are sugary. But consumers are fast shifting towards niche and premium chocolate varieties. Also, there is tremendous demand for dark chocolates as they have less sugar and more cocoa taste,". AMUL launched country's first camel milk chocolate and a green tea chocolate for which it had tied up with reputed tea gardens in Kerala and Tamil Nadu. this plant is manufacturing all varieties of chocolates including regular, speciality, centre filled, centre-filled bars, coated, buttons ranging from 0.2 to five grams (for consumers as well as industries) and soft-boiled candies.



Session -11

Topic : Country Paper Presentation by Participants

Faculty/Resource person : CT team, NDDDB & Smita Kadam, RO, CICTAB

In the country paper presentation session all the participants presented about their country and the status of the dairy development sector of their country.



Group of participants from Sana Kisan Bikas Laghubitta Bittiya Sanstha Ltd., Nepal



Group of participants from Aastha Saving and Credit Cooperative Ltd., NEFSCUN, Nepal



Group of participants from the Co-Operative Credit Union League Of Bangladesh (CCULB), Bangladesh



Ms. Landuleni N. Uugulu, Ministry of Rural and Urban Development, Namibia



Mr. Moses Kavwanga, Chama Youth Resource Centre Zambia NAMIBIA



Ms. Mary Dadzie, Land use and spatial planning authority, Ghana



Group of participants from the National Cooperative Council, Sri Lanka

Valedictory Session

Valedictory Session of the training programme was graced by Mrs. Ananditya Baidya, CT Group, NDDDB in the presence of Shri Rahul R, Manager(CT) & Ms. Smita Kadam, RO, CICTAB.

Mrs. Ananditya Baidya, CT Group, NDDDB took the detailed feedback from the participants about the in house sessions and field visits. She briefed about the collaboration of India with the Sri Lanka for the dairy development set up and processing plant.

Participants from Zambia, Namibia and Ghana were quite interested to know more about the dairy developmet. Mrs. Ananditya Baidya promised them that NDDDB always welcome them for every type assistance and knowledge.

Certificate distributions was done by Mrs. Ananditya Baidya, CT Group, NDDDB and Ms. Smita Kadam, RO, CICTAB



Certificates were distributed to the participants by the Mrs. Ananditya Baidya, CT Group, NDDDB, Shri Rahul R, Manager(CT) and Ms. Smita Kadam, RO, CICTAB

Learning outcome:

- ❖ The co-operative business model combines the best of small business ownership and a corporation. It often includes local wealth creation and reflects community interests, like a small business. But it also provides governance, potential for longevity and limited liability, like a corporation.
- ❖ India's dairy cooperative is largest cooperative dairy in world. The dairy cooperative is proving a nutritional and economic security to India. It not only bringing the unorganised dairy sector into organised sector but also aims to improve health, animal productivity, women empowerment and a better life for rural farmers.

Group Photo of the Programme:



CICTAB Secretariat

1. Dr. Hema Yadav, Director
2. Dr. D. Ravi, Consultant
3. Ms Kalyani Sahoo, Programme officer
4. Ms. Smita Kadam, Research officer
5. Mrs Usha Kulkarni, Stenographer
6. Mr. J.B. Gaikwad, Asst. Accountant
7. Mr Shivsagar Patil, Jr. Clerk
8. Mr. Suresh Salvi, MTS
9. Mr. Nitin Koli, MTS



**International Programme on
Dairy Development through Cooperative Business Model
(CICTAB–NDDB-VAMNICOM)**

26th – 28th February 2024

List of Participants

Sr. No	Name	Organization	Designation
	NEPAL		
1.	Mr. Ram Prasad Pandey	NACCFI : Small Farmer Agriculture Cooperative Ltd	Vice-Chairperson
2.	Mr. Pradip Khanal	NACCFI : Small Farmer Agriculture Cooperative Ltd	Market Representative
3.	Mr. Shekhar Nath Dawadi,Senior Assistant	SKBLBS : Sana Kisan Bikas Laghubitta Bittiya Sanstha Ltd.	Senior Assistant
4.	Ms. Laxmi Kumari Thapa	SKBLBS : Sana Kisan Bikas Laghubitta Bittiya Sanstha Ltd.	Senior Assistant
5.	Mr. Niraj Kumar Dhamy	SKBLBS : Sana Kisan Bikas Laghubitta Bittiya Sanstha Ltd.	Senior Assistant
6.	Mr. Krishna Bahadur Karki	SKBLBS : Sana Kisan Bikas Laghubitta Bittiya Sanstha Ltd.	Assistant
7.	Mr Binod Kumar Sah	NEFSCUN : Aastha Saving and Credit Cooperative Ltd	Chairperson
8.	Mr Navin Kumar Karn	NEFSCUN : Aastha Saving and Credit Cooperative Ltd	CEO
9.	Mr Jaynath Mandal	NEFSCUN : Baishanvi Saving and Credit Cooperative Ltd	CEO
10.	Mr Ram Narayan Sah	NEFSCUN : Bishaharamai Saving and Credit Cooperative Ltd	Secretary
11.	Mr Sanjay Kumar Yadav	NEFSCUN : Bishaharamai Saving and Credit Cooperative Ltd	Loan Officer
12.	Mr Vijay Kumar Mahato	NEFSCUN : Shubhshree Saving and Credit Cooperative Ltd	Manager
	BANGLADESH		
13.	Mr. Enamul Kabir	CCULB : Abhaynagar Upazila Shikkhok Kormachari Cooperative Credit Union Ltd,Jashore	Chairman
14.	Mr. Bidyut Kumar Biswas	CCULB : Prutyasha Cooperative Credit Union Ltd,Khulna	CEO
15.	Mr. Shaikh Shahidul Islam,	CCULB :Dumuria Upazila Shikkhok Karmachari CCU Ltd,Khulna	Chairman
16.	Mr. Nittyanonanda Mondol	CCULB : Dumuria Upazila Shikkhok Karmachari CCU,Khulna	Secretary
17.	Mr. MD Masud Hasan	CCULB : Tulsighat Cooperative Credit Union Ltd,Gaibandha	Chairman
	SRI LANKA		
18.	Mr. Vidana Gamage Marknas	NCC : Beliaththa Multipurpose Coop Society	Chairman
19.	Mr. Nanayakkara Munmullage Pramesh Jeewan Wenura Sampath	NCC : Beliaththa Multipurpose Coop Society	Vice Chairman
20.	Mr. Loku Hannadige Karunathilaka	NCC : Beliaththa Multipurpose Coop Society	Director
21.	Mr. Kaluhannadi Asanka Dilusara	NCC : Beliaththa Multipurpose Coop Society	Director

22.	Mr. Kithulampitiya Korallalage Thanuja Dammika Ranasingha	NCC : Beliaththa Multipurpose Coop Society	Director
23.	Mr. Panamulla Arachchige Ajitha Priyantha	NCC : Beliaththa Multipurpose Coop Society	Director
24.	Mr. Hewa Arachchige Upul Gamini	NCC : Beliaththa Multipurpose Coop Society	General Manager
25.	Mr. Kankanam Sagarage Susantha Dilum Pushpa Kumara,	NCC : Beliaththa Multipurpose Coop Society	Deputy General Manager, Accounting and Finance
26.	Mr. Lasitha Dileep Wijesingha	NCC : Beliaththa Multipurpose Coop Society	Assistant General Manager Production
27.	Mr. Sedara Arachchige Suranga Saman Kumara	NCC : Beliaththa Multipurpose Coop Society	Assistant General Manager – Consumer
28.	Ms. Demalgiriya Gamage Nayana Wasanthi	NCC : Beliaththa Multipurpose Coop Society	Assistant General Manager Education and Training
29.	Mr. Mayura Sisiranatha Kodithuwakku	NCC : Beliaththa Multipurpose Coop Society	Chief Auditor
30.	Ms. Abraham Galappaththige Shyamali	NCC : Beliaththa Multipurpose Coop Society	Management Assistant
31.	Mr. Gegana Gamage Jayarathn	NCC : Beliaththa Multipurpose Coop Society	
32.	Mr. Mahanthe Mudiyansele Anurudda Imbuldeniya,	NCC : Udunuwara Multi Purpose Coop Society	Chairman
33.	Mr. Aluthgedara Derick Weerawardana	NCC : Udunuwara Multi Purpose Coop Society	
34.	Mr. Deenugal Pedi Gedara Ranasinghe	NCC : Udunuwara Multi Purpose Coop Society	Assistance General Manager (Bank),
35.	Mr. Amadoru Galappaththige Jagath Laxman,	NCC : Nawalapitiya Multi Purpose Coop Society	Hon Chairman
36.	Mr Siyambalagodage Chathura Prabath,	National Cooperative Council of Sri Lanka	Assistant General Manager(Admin)
	AARDO Nominated Participants (GHANA)		
37.	Ms. Mary Dadzie	AARDO: Land use and spatial planning authority, Ghana P.O.BOX MB 61	Human Resource
	ZAMBIA		
38.	Mr. Moses Kavwanga	AARDO: Chama Youth Resource Centre Zambia P.O. Box 540040	Centre Manager, Youth Development
	NAMIBIA		
39.	Ms. Landuleni N. Uugulu, Namibia	AARDO: Ministry of Rural and Urban Development, Namibia	



**NATIONAL
DAIRY
DEVELOPMENT
BOARD**



**International programme on
Dairy Development through Cooperative Business Model
26 – 28 February 2024**

Participants: Professionals from SAARC Countries (Nepal, Bangladesh, Sri Lanka, Ghana, Zambia, Namibia)	Venue: Training Room no. 06
No. of participants: 39	Programme no. PNOID-2630
Manager: Shri Rahul R, Manager(CT) Ph: +91-9655878266	Duration: 26-28 February 2024

Programme Schedule

Time	Subject	Facilitator
28 February 2024 Monday		
1000-1045	Welcome, Introduction and briefing about the programme	CT group, NDDB & CICTAB
1045-1100	Tea break:	
1100-1200	Participant wise briefing about activities, challenges and opportunities Country wise briefing about activates	CT group, NDDB & CICTAB
1200-1330	Role of Cooperative Business Model for enhancing rural livelihood by	Mrs. Ananditya Baidya, CT Group, NDDB
1330-1430	Lunch break	
1430-1630	Visit to NDDBs Visitors' gallery for an over of NDDBs activities	Shri Rahul R, CT
1630-1645	Tea break	
1645-1800	An overview of international dairy scenario	Shri Vishwajit Bhattacharya and Shri Saurav Kumar, SA&P
1800-1930	Visit to a SANDESAR Milk producers Cooperative Society, Sandesar Village	Shri Rahul R, CT
27 February 2024 Tuesday		
0930- 1100	Milch Animal health Care Management	Dr.Sagar Shrof, AH
1100-1115	Tea break	
1115-1330	Visit to AMUL Dairy Plant-III and museum	Shri Rahul R, CT
1330-1430	Lunch Break	

1430- 1600	Technology in dairy sector-based business model: Role of NDDB: Use of Information Technology in dairy value chain	Shri AVR Kumar, ICT to kindly arrange
1600-1615	Tea Break	
1630-1800	Strategic Feed & older plan for augmenting animals productivity and improving profitability	Dr. N. R. Ghosh, AN
	27 February 2024 Wednesday	
0930- 1100	Innovation and Convergence of manure management interventions : Visit to Mujhkuva & Slurry Processing Unit, Vasna	Shri Rahul R, CT
1100-1115	Tea Break	
1115-1330	Visit to AMUL Chocolate Factory, Mogar	Shri Rahul R, CT
1330-1430	Lunch Break	
1430- 1600	Country Paper Presentation by Participants	CT team, NDDB & Smita Kadam, RO, CICTAB
1600-1615	Tea Break	
1630-1800	Valediction of the Programme and certificate distribution	CT team, NDDB & Smita Kadam, RO, CICTAB

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