ADVANCE MODULE-01

BIRD

BANKERS INSTITUTE OF RURAL DEVELOPMENT, LUCKNOW
(Designated Nodal Training Institution at Central Level by GoI under the Central Sector Scheme on Formation & Promotion of 10000 FPOs)

FPOs are growth engine of Indian Agriculture

Trainer's Note

Agri-Value Chain

under
Central Sector Scheme on Formation & Promotion of 10000 FPOs

NABARD

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CONTENTS

PROGRAM OUTLINE

Program objective	The Advanced Module on Agri Value Chains is targeted at members and staff of FPOs and CBBOs - with the following aims: • To understand the concept of value chains, characteristics of value chains • To study specific value chains – cereals, fruit and vegetables, poultry and inland fisheries • To better equip FPOs and CBBOs to analyse value chains of their crops and enable them to participate in more stages of a value chain and improve returns to farmers and FPOs alike.
Duration	Three days
Course content	• Dynamics of the agri value chain and its characteristics • Role, functions and modus operandi of the value chain actors • Value chain activities of major cereals crops (Wheat, paddy and Maize), horticulture crops (Banana) and agriculture allied sector (Poultry and Fishery) • Prospective Models for Value Chains • Action planning by each FPO and participating CBOs – towards increasing their participation in different stages of value chains relevant to them,
Target Participants	Officials and members of CBBOs, Board of Directors (BoD) and Chief Executive Officers (CEO) of the FPOs

TRAINING PLAN

SESSION	SESSION TITLE	DAY	TIME (MINUTES)
0	Formal Inauguration and introduction to participants		
1	Concept of Agriculture Value Chain and its characteristics	1	90
2	Role, responsibility and functioning of value chain actors	1	90
3	Agricultural Value Chain of Wheat Crop	1	90
4	Agricultural Value Chain of Paddy Crop	1	90
5	Agricultural Value Chain of Banana Crop	2	90
6	Agricultural Value Chain of Tomato Crop	2	90
7	Agricultural Allied Value Chain of Poultry	2	90
8	Agricultural Value Chain of Inland Fishery	2	90
9	Agricultural Value Chain of Maize Crop	3	90
10	Case Exercise : Value Chain Analysis of Cereal Crops	3	NA
11	Case Exercise : Value Chain Analysis of Horticulture Crops	3	NA
12	Case Exercise : Value Chain Analysis of Agri-Allied Sector	3	NA
	Action plan, feedback, and valediction		

Note: Sessions 10, 11 and 12 are case exercises. These are mentioned in the program design but they are not included in the Reading Material. The facilitators are encouraged to identify cases on suitable crops/products that may be of interest to the participants and facilitate case study analysis.

This module can be also held as a two day programme:

Day 1 : Concept of the agri value chain; roles and responsibilities of various actors in the chain, one sample crop for understanding a value chain (common to all participants)

Day 2 : Crop-specific value chain (wheat/paddy/tomato/banana etc); case study discussion in sub groups – where participants can choose whatever crops are appropriate to their FPO.

SESSION 1: CONCEPT OF AGRICULTURE VALUE CHAIN

AND ITS CHARACTERISTICS

Synopsis

This session introduces the participants to a conceptual framework of value chains. The framework serves as the foundation for the approach recommended for Cluster Based Business Organisations (CBBO) and Farmer Producer Organisations (FPO).

Following this session, the participants will be able to define a value chain, understand the activities, players or actors, and the flows involved. With this framework as the context, the participants will then be able to see how farmers, if they remain unorganised, are at a relative disadvantage in a value chain. This realisation is then used as the basis to introduce the different new activities/interventions which can become part of an FPO's business model.

Learning Objectives

The overarching objective is to understand the agri value chains in order to choose business models for an FPO and make a business plan for a viable and impactful FPO.

After completing Session 1 of Day 1 of the Advanced Agri Value Chain module, the participant will be able to:

- State the definition of a value chain
- List the different elements or parts of a value chain
- Describe the interdependencies among the different elements or parts of the value chain
- Explain the role of each value chain actor and the value they add and take
- Name the supporting actors in a value chain
- Elaborate how the supporting actors help create and maintain the value chain
- List the four underlying items that flow in a value chain
- Describe the value chain ecosystem concept that connects all the elements/parts and roles and flows
- State the fundamental challenges/constraints farmers face in entering an agri value chain
- State why participation in the value chain is important for FPOs
- List the opportunities FPOs can pursue as business models in their value chains

Time Plan for Session

#	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Ecosystem of the Agri Value Chain	Describing the basic concept of the Agri value Chain	20	Chart, pens, and curated videos on value chains
3	Value chain activities	Highlighting various facets of the value chain activities and their interdependence	10-15	Charts, pens, markers, highlighters, tent cards
4	Value Chain Actor	Role of the value chain actors and distribution of economic rent	15	Charts, pens, and curated videos
5	Supporting Value Chain Actor	Highlighting the importance of supporting actors to create business environment	15	Charts, pens, and curated material
6	Value Chain Approach	Importance and benefits of the value chain approach for FPOs	10	Charts, pens, and curated material
7	Discussion and Feedback		10	Discussion Mode

TEACHING METHODS AND NOTES

TASK	ACTIVITIES
Task 1: Session objectives	Using a chart/whiteboard as available, the facilitator will spell out and explain the learning objectives mentioned above. It is recommended that the facilitator enable the participants to see the connection between the module and the specific goals and targets in the 10,000 FPOs scheme.
Task 2: Interactive Lecture	In the first part of the interactive lecture, the facilitator must introduce: • Definition of Value Chain • Elements or Parts (namely, the set of Activities, the set of Value Chain Actors, the set of Supporting Actors, and the Value Added) • Value Chain Actors (here, the facilitator must discuss their roles and capabilities/resources required to play each role) • Supporting Value Chain Actors • Key Flows in a Value Chain Following this, the facilitator must integrate all the above-mentioned five elements into The Value Chain Ecosystem concept.

TASK	ACTIVITIES
	Then, the facilitator must initiate a discussion on the value chain, from the following two perspectives: • Farmer • Farmer Producer Organisations (FPOs) The facilitator may use the Guided Discussion as a method. In this method the facilitator enables a discussion between them and the learners. Following this, the facilitator must: • Lead a discussion on the challenges farmers face • Lead a discussion on the opportunities for FPOs Finally, the facilitator must sum up by emphasising how each opportunity can be a business model for an FPO.
Task 3: Question and Answers (Q&A)	The trainer will facilitate a Q&A session on this topic and conclude the session after summarising the key learnings.

Questions for Discussion

The facilitator or the trainer can use the following trigger questions to engage the participants in a discussion:

- In the distribution of any commodity or product, what is the sequence of activities from producer to consumer?
- Who are the people involved in the sequence from producer to consumer?
- What resources and capabilities do the participants involved in each activity require?
- Does each participant get the same share or a different share?
- Can one group of people play the other group's role easily?
- Can a farmer get involved in activities of a value chain? If yes, which activities?
- Can an FPO get involved in activities of a value chain? IF yes, which activities?

BACKGROUND READING

1. Farm Radio International. An introduction to agri value chains. Online:https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/52685/IDL-52685.pdf
2. Centre for Social Entrepreneurship and Enterprises (CSEE), Institute of Rural Management Anand (IRMA). An integrated report on the collaborative study of eight agricultural value chains in the tribal district of Chhotaudepur, Gujarat. Online: http://mksp.gov.in/images/Value_chain_study_CSEE_SFT_Report_final.pdf
3. Details of the 10000 FPOs scheme

https://static.pib.gov.in/WriteReadData/userfiles/FPO%20Scheme%20Guidelines.pdf

SESSION 2: ROLE, RESPONSIBILITY AND FUNCTIONING OF VALUE CHAIN ACTORS

Synopsis

This session helps the participant investigate the dynamics of the intermediaries in a value chain in a structured manner. By helping the participant correctly understand the functions of different value chain actors in an ecosystem, the session will help them see an FPO as a distinct value chain actor.

Learning Objectives

The overarching objective is to understand business models in a value chain and the dynamics of the different value chain actors.

After completing Session 2 of Day 1 of the Advanced Agri Value Chain module, the participant is able to:

- List the major functions performed by intermediaries in a value chain
- Categorise the different functions:
    - Exchange functions
    - Physical functions
    - Facilitating functions
- Identify the interest of each actor in the value chain
- Illustrate the conflict of interest between different actors
- Understand the different dimensions of the ecosystem for a value chain actor
    - Infrastructure
    - Financing
    - Marketing
    - Price
- Define the typical role and functions of the actors in a value chain
- Prerequisites for an FPO's success as a value chain actor

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (Minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Functions of Value Chain actors	Describing the dynamics of the intermediaries to perform value chain activities	15	Chart, pens, and curated videos
3	Eco-System of the Value Chain Actor	Describing the concept of Marketing Cost and Marketing Margin	15	Charts, pens, markers, highlighters, tent cards
4	Working of market intermediaries	Describing the business model of input and output value chain actor	25	Charts, pens, and curated videos
5	FPO as a Value Chain Actor	Understanding the opportunities of business	15	Charts, pens, and curated

		participation in the agriculture value chain by FPOs		material
6	Discussion and Feedback		15	Discussion Mode

TEACHING METHODS AND NOTES

TASK	ACTIVITIES
Task 1: Session objectives	Using a chart/whiteboard as available, spell out and explain the learning objectives mentioned above. It is recommended that the facilitator enable the participants to see the connection between the module and the specific goals and targets in the 10,000 FPOs scheme.
Task 2: Role Play	The facilitator invites the participants to be part of a Role Play. Each volunteer takes up the role of one value chain actor (farmer, arthiya, transporter, trader, wholesaler, processor, retailer, consumer etc). And, in any order that the participants think fit, the value chain actors have mock conversations. Through the Role Play, the participants are required to illustrate the role of each actor in the value chain.
Task 3: Interactive Lecture	After the Role Play, the facilitator does a debrief around the following questions. • What did the discussions focus on? • What were the key points that emerged? • What are the different priorities? Following the debrief, the facilitator delivers a lecture to cover the following points: • Range of functions that have to be performed by various intermediaries • The categories these functions can be grouped into • The types of intermediaries and value chain actors, covering: o Input Supplier o Primary Producer o Trader o Post-harvest Contractor o Local Aggregator o Wholesaler o Aggregators/Service Providers/Traders o Small Retailer o Big Retailer o Agent (Commission Agent and Arthiya)

TASK	ACTIVITIES
	○ Processors ○ Middlemen (Speculative and Facilitative) ○ Graders ○ Transporters ○ Communication Agency After explaining the range of intermediaries and the range of functions, the facilitator must help them appreciate each actor's perspective. In order to enable this, the facilitator must initiate a discussion on: • The specific interests of each key actor in the value chain • The ways in which the interests conflict In the next part of the session, the facilitator must enable the participant to analyse how a value chain player makes a marketing margin, what marketing costs do they incur, what resources do they need, what support services do they pay for, what information do they use, what price do they purchase for, and what price do they sell at, to finally make a margin. Then, the facilitator must initiate a discussion on how to understand the value chain dynamics, so that the FPO can create a role for itself as a value chain actor. With respect to the dynamics, the facilitator must focus on: • Requirement of financial resources • Assessment of infrastructure and support services • Business relationships critical for success • Market intelligence required • Risks involved in any proposed activity • Ways to manage the risk
Task 3: Q&A	The trainer will facilitate a Q&A session on this topic and conclude the session after summarising the key learnings.

Questions for Discussion

The facilitator or trainer can use the following trigger questions to engage the participants in a productive discussion or debate within the broad framework of the session:

- Who are the intermediaries in a value chain?
- What function does each intermediary perform?
- How does one actor's interest affect the interest of the value chain actor who is before them in the sequence?
- How does one actor's interest affect the interest of the value chain actor who is after them in the sequence?
- Before an FPO starts a new activity in a value chain, what are the factors it must take into account?

BACKGROUND READING

1. Centre for Social Entrepreneurship and Enterprises (CSEE), Institute of Rural Management Anand (IRMA). An integrated report on the collaborative study of eight agricultural value chains in the tribal district of Chhotaudepur, Gujarat. Online: http://mksp.gov.in/images/Value_chain_study_CSEE_SFT_Report_final.pdf

SESSION 3: AGRICULTURAL VALUE CHAIN OF WHEAT CROP

Synopsis

This session gives the participants a comprehensive overview of the wheat value chain. Building on the overview, the session offers the participants a few pointers on how to identify opportunities for FPOs at different steps/links in the wheat value chain and see them as business models, each with differing risk profile and business potential.

Learning Objectives

The overarching objective is to understand opportunities, challenges and business potential by participating in the wheat value chain (as a prominent example of an agri value chain).

The CBBO staff will support the FPO's Directors and CEO to carefully estimate the potential impact of the FPO in taking up specific activities in the wheat value chain and present the opportunities to their wheat cultivating farmers to evolve a business model and plan.

On completion of this session, the participant is able to:

- Describe the wheat value chain
- Draw the wheat value chain in the value chain ecosystem model introduced in Session 1
- List the different elements or parts of the wheat value chain:
    - Actors
    - Activities
    - Product Flow
    - Money Flow
- Describe the interdependencies among the different elements or parts
- Understand the method to calculate the economics for the farmer – small farmer, medium farmer, and large farmer
- List the key challenges and inefficiencies in the wheat value chain, in general
- List the challenges and inefficiencies at the farmers' level
- Explain each challenge or inefficiency in the wheat value chain, using the value chain framework introduced in sessions 1 and 2
- Identify the opportunities for aggregation-based services and the benefit that can be delivered to the farmer and the FPO
- Identify the opportunities for mechanisation services and the benefit that can be delivered to the farmer (as cost reduction) and the FPO (as market margin)
- Rate the risk involved in each opportunity identified

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Assessment of input business	Input wise assessment of opportunities for cost	15	Chart, pens, and curated

		reduction by business participation as an input supplier		videos
3	Assessment of procurement business	Assessment of opportunities for enhancing economic rent by business participation as an aggregator	10	Charts, pens, markers, highlighters, tent cards
4	Assessment of processing business	Assessment of opportunities for enhancing economic rent by business participation as a processor	20	Charts, pens, and curated videos
5	Assessment of trading business	Produce wise assessment of opportunities for enhancing economic rent by business participation as a trader	15	Charts, pens, and curated material
6	Assessment of the multiple business activities	Assessment of the business participation potential at different stages in the value chain and through combinations of the value chain actors	15	Charts, pens, and curated material
7	Discussion and Feedback		10	Discussion Mode

TEACHING METHODS AND NOTES

TASK	ACTIVITIES
Task 1: Session objectives	Use a chart to explain the session objectives
Task 2: Interactive Lecture	The facilitator uses an interactive approach to deliver a comprehensive lecture that helps the participant understand the wheat value chain. In the first part of the interactive lecture, the facilitator must introduce: • Key statistics about India's wheat economy - production, seasonality, consumption, area under cultivation, productivity • Current players in the wheat value chain in India – what role does each play, losses at different stages, farmers' share of consumer rupee • The major challenges faced by various actors in each stage , Then, the facilitator must initiate a discussion on the wheat value chain, from the following two perspectives: • Farmer • Explore the changes in economics between small, medium, and large farmer

TASK	ACTIVITIES

	Following this, the facilitator must:
	• Lead a discussion on the challenges farmers face
	• Lead a discussion on the opportunities for FPOs in serving the farmers and building the FPO business
	• Farmer Producer Organisations (FPOs) – what are the areas which can represent opportunities?
	• If the opportunities are pursued:
	    o How does a farmer benefit?
	    o How does the FPO benefit? (To understand this, the participants must understand the margin the FPO will make in each activity)
	• On the market side, what are the opportunities for the FPO? What additional per cent of the overall value can an FPO hope to claim?
	• What are the different scenarios possible and what is the business potential for an FPO in each scenario?
	• What business model does each of these assessments indicate for an FPO in the wheat value chain?
	
	In conclusion, the facilitator must sum up by emphasising how each challenge-opportunity can be a business model for an FPO in the wheat value chain. The opportunities must be discussed step by step, covering:
	• Inputs
	• Production System
	• Post-Harvest Management
	• Value Addition/Processing
	• Marketing
	• Export

Task 3: Q&A	The trainer will facilitate a Q&A session on this topic and conclude the session after summarizing the key learnings.

Questions for Discussion

The facilitator or trainer can use the following trigger questions to engage the participants in a productive discussion or debate within the broad framework of the session:

- Which are the leading wheat producing states (percentage of total production) in India?
- What are the biggest challenges farmers face with respect to inputs?
- What are the opportunities for an FPO as an input supplier for wheat cultivation? How will it make a difference to the farmers and the FPO?
- What are the aggregation opportunities for an FPO in procurement of wheat? How will it make a difference to the farmers and the FPO?
- What are the opportunities for an FPO in processing wheat? How will it make a difference to the farmers and the FPO?

- What are the opportunities for an FPO in trading wheat? How will it make a difference to the farmers and the FPO?
- Altogether, what are the consolidated business possibilities for an FPO in wheat?
- Are there activities in the wheat value chain which are not as suitable for FPOs to get involved in?

BACKGROUND READING

1. Grant Thornton (2016). Rajasthan Agricultural Competitiveness Project, Value Chain Analysis, Wheat. Online: https://agriculture.rajasthan.gov.in/
2. ACDI/VOCA (2008). Value chain analysis of wheat and rice in Uttar Pradesh, India. Online: https://www.fao.org/3/at314e/at314e.pdf

SESSION 4: AGRICULTURAL VALUE CHAIN OF PADDY CROP

Synopsis

This session gives the participants a comprehensive overview of the paddy value chain. Building on the overview, the session offers participants pointers on how to identify opportunities for FPOs at different steps/links in the paddy value chain and see them as business models, each with differing risk profile and business potential.

Learning Objectives

After completion of the session the participant is able to:

- Describe the paddy value chain
- Draw the paddy value chain in the value chain ecosystem model introduced in Session 1
- List the different elements or parts of the paddy value chain:
    - Actors
    - Activities
    - Product Flow
    - Money Flow
- Describe the interdependencies among the different elements or parts
- Understand the method to calculate the economics for the farmer – small farmer, medium farmer, and large farmer
- List the key challenges and inefficiencies in the paddy value chain, in general
- List the challenges and inefficiencies at the farmers' level
- Explain each challenge or inefficiency in the paddy value chain, using the value chain framework introduced in sessions 1 and 2
- Identify the opportunities for aggregation-based services and the benefit that can be delivered to the farmer and the FPO
- Identify the opportunities for mechanisation services and the benefit that can be delivered to the farmer (as cost reduction) and the FPO (as market margin)
- Rate the risk involved in each opportunity identified

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Assessment of input business	Input wise assessment of opportunities for cost reduction by business participation as an input supplier	15	Chart, pens, and curated videos
3	Assessment of procurement business	Assessment of opportunities for enhancing economic rent by business participation as an aggregator	10	Charts, pens, markers, highlighters, tent cards
4	Assessment of	Assessment of opportunities	20	Charts, pens,

	processing business	for enhancing economic rent by business participation as a processor		and curated videos
5	Assessment of trading business	Produce wise assessment of opportunities for enhancing economic rent by business participation as a trader	15	Charts, pens, and curated material
6	Assessment of the multiple business activities	Assessment of the business participation potential at different stages in the value chain and through playing role of one or combinations of the value chain actors	15	Charts, pens, and curated material
7	Discussion and Feedback		10	Discussion Mode

TEACHING METHODS AND NOTES

TASK	ACTIVITIES
Task 1: Session objectives	Use a chart to explain the session objectives.
Task 2: Interactive Lecture	The facilitator uses an interactive approach to deliver a comprehensive lecture that helps the participant understand the paddy value chain. In the first part of the interactive lecture, the facilitator must introduce: • Key statistics about India's paddy economy - production, seasonality, consumption, area under cultivation, productivity • The paddy value chain, as it stands now – who are the actors and what are their roles • The major challenges – losses at different stages, farmers' share of consumer rupee Then, the facilitator must initiate a discussion on the paddy value chain, from the following two perspectives: • Farmer • Explore the changes in economics between small, medium, and large farmer Following this, the facilitator must: • Lead a discussion on the challenges farmers face • Lead a discussion on the opportunities for FPOs in serving farmers and building the FPO business • Farmer Producer Organisations (FPOs) – what are the areas which can represent opportunities? • If the opportunities are pursued: • How does a farmer benefit? • How does the FPO benefit? (To understand this, the participants

TASK	ACTIVITIES
	must understand the margin the FPO will make in each activity) • On the market side, what are the opportunities for the FPO? What additional per cent of the overall value can an FPO hope to claim? • What are the different scenarios possible and what is the business potential for an FPO in each scenario? • What business model does each of these assessments indicate for an FPO in the paddy value chain? In conclusion, the facilitator must sum up by emphasising how each challenge-opportunity can be a business model for an FPO in the paddy value chain. The opportunities must be discussed step by step, covering: • Inputs • Production System • Post-Harvest Management • Value Addition/Processing • Marketing • Export (highlight/discuss the markets for basmati rice and non-basmati varieties as well)
Task 3: Q&A	The trainer will facilitate a Q&A session on this topic and conclude the session after summarising the key learnings.

Questions for Discussion

The facilitator or the trainer can use the following trigger questions to engage the participants in a productive discussion or debate within the broad framework of the session:

- What is the sequence of activities from producer to consumer?
- Which are the leading paddy producing states (percentage of total production) in India?
- What are the biggest challenges farmers face with respect to inputs?
- What are the opportunities for an FPO as an input supplier for paddy cultivation? How will it make a difference to the farmers and the FPO?
- What are the aggregation opportunities for an FPO in procurement of paddy? How will it make a difference to the farmers and the FPO?
- What are the opportunities for an FPO in processing paddy? How will it make a difference to the farmers and the FPO?
- What are the opportunities for an FPO in trading paddy and rice? How will it make a difference to the farmers and the FPO?
- Overall, what are the consolidated business possibilities for an FPO in paddy?
- Are there activities in the paddy value chain which are not as suitable for the FPOs to get involved in?

BACKGROUND READING

1. Centre for Social Entrepreneurship and Enterprises (CSEE), Institute of Rural Management Anand (IRMA). Chapter 5, Studying the value chain of paddy crop in Chhotaudepur district in Gujarat. In, An integrated report on the collaborative study of eight agricultural value chains in the tribal district of Chhotaudepur, Gujarat. Online: http://mksp.gov.in/images/Value_chain_study_CSEE_SFT_Report_final.pdf

SESSION 5: AGRICULTURAL VALUE CHAIN OF BANANA CROP

Synopsis

Chapter 6 provides the participants with relevant concepts and data on banana value chain activities - input, procurement, processing, and trading. Banana is an essential horticulture product in several states, including Tamil Nadu, Maharashtra, Gujarat, Andhra Pradesh, and Karnataka. In this session, the participants would explore the value chain activities and familiarise themselves with the data.

Learning Objectives

After completion of the session, participants will be able to:

- State the various actors in the banana value chain and role played by each
- State what risks are involved at each state
- State what role they can play at which stage in the value chain
- Present their findings (potential participation in the value chain) to fellow farmers and evolve a plan for such participation

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Banana farming: Input management cost and aggregating inputs	Present input cost for marginal, small, and large farmers per acre	15	Chart, pens, and curated videos
3	Group activity: Aggregating inputs	Three Groups to estimate input and divide activities in cost reduction and cost increase categories	25	Charts, pens, markers, highlighters, tent cards
4	Banana procurement, processing, and trading: Overview	Overview of the stakeholders in the marketing value chain and cost estimates with sharing of experiences by the participants	15	Charts, pens, and curated videos
5	Group activity: Net margins estimation	Three Groups to estimate and present net margins with guidance from facilitators and volunteers	15	Charts, pens
6		Presentation by three groups on FPO marketing activities	15	Charts, pens, markers

		using three channels		

TEACHING METHODS AND NOTES

Before organising the training session, the facilitator shall ensure all the materials used for the training are available in the local language. Since the focus of the training session is the banana value chain, selected participants should be dealing with the banana value chain in their FPOs.

TASKS	ACTIVITIES
Session introduction	Use a chart to present the session objectives
Banana farming: Input management cost and aggregating inputs	In this 15-minutes session, the facilitator needs to present quite a large set of estimations. To help the participants grasp the essential differences (increase or decrease in cost based on land size), the facilitator can group the activities into six stages of inputs management: farm mechanisation, plantlets, fertilisers and nutrients, plant protection, propping, and fencing. The participants can ask questions and share feedback on costs presented by the facilitator.
Group activity: Aggregating inputs	Participants are divided into three groups – representing marginal, small and large farmers. Through discussions, each group aggregates input costs for a given number of farmers. The participants may also need the printed cost sheets to quote those numbers in their estimations. At the end of the group activities, each group can present their findings and take questions from other groups.
Banana procurement, processing, and trading: Overview	In this 15-minutes session, the facilitator shall present the stakeholders involved in the banana marketing value chain. The presentation highlights profits and costs incurred by those stakeholders at various stages of marketing. The facilitator shall encourage the participants to share their experiences with those stakeholders at the end of her presentation.
Group activity: Net margins estimation	In this session, the facilitator will create three groups based on the stakeholder involvements (refer to Channel I, II, and III in the course material) for FPO's marketing activities. Each group will use the figures on costs and profits (presented in the previous sessions) to arrive at the net margins for the FPOs. Once the groups have completed their estimation in the first 15 minutes, each group representing channels I, II, and III shall present their findings respectively. The facilitator shall also highlight the risks and possibilities for the FPOs to adopt a given marketing option.

Questions for Discussion

- For inputs like farmyard manure, fertiliser, and micronutrients, marginal and small farmers spend less than the large farmers. Share your experiences of how the marginal and small farmers can optimise their costs in these areas?
- Share your observations on the practices by the marginal and small farmers in optimising their input costs?

- Which stakeholders do you think are necessary for marketing produce of banana farmers in your area? Why are those stakeholders necessary?
- What are the risks the FPOs need to bear if they take over some activities in the banana value chain?

Background Reading

1. ICAR NRC Banana (2020). Value addition and entrepreneurship development in Banana. Recording of a webinar. Online: https://youtu.be/Ko4jD4DoLGI
2. NABARD (2015). Collective Marketing: Banana. Online: https://youtu.be/AfXz_bgz3SY
3. Ramesh Kammar (2018). Elakki banana cultivation. Online: https://youtu.be/rKuh-NIGZok

SESSION 6: AGRICULTURAL VALUE CHAIN OF TOMATO CROP

Synopsis

In Chapter 9, the participants will explore the potential of tomato, its value chain activities, and potential aggregation opportunities for the FPOs. The session will help the participants to identify the losses as tomato is a highly perishable crop.

Learning Objectives

After completion of the session participants will be able to:

- Appreciate the earning potential of tomatoes
- Plan for diversification of farming to cultivate tomatoes in one season
- State the importance of various unit costs and be able to develop plans for entering at one or multiple stages of the tomato value chain

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Assessment of input business	Input wise assessment of opportunities for cost reduction by business participation as an input supplier	15	Chart, pens, and curated videos
3	Assessment of procurement business	Assessment of opportunities for enhancing economic rent by business participation as an aggregator	10	Charts, pens, markers, highlighters, tent cards
4	Assessment of processing business	Assessment of opportunities for enhancing economic rent by business participation as a processor	20	Charts, pens, and curated videos
5	Assessment of trading business	Produce wise assessment of opportunities for enhancing economic rent by business participation as a trader	15	Charts, pens, and curated material
6	Assessment of the multiple business activities	Assessment of the business participation potential at different stages in the value chain and through playing role of one or combinations of the value chain actors	15	Charts, pens, and curated material
7	Discussion and Feedback		10	Discussion Mode

TEACHING METHODS AND NOTES

Before organising the training session, the facilitator shall ensure all the materials used for the training are available in the local language. The session requires the participants to review the cost heading and costs. So, the facilitator should come with pre-printed worksheets for distribution among the participants.

TASKS	ACTIVITIES
Session introduction	Use a chart to explain session objectives
Tomato value chain overview	A pictorial representation of the various activities in the value chain may be put up as various charts across the room. Lead the participants across the training room engaging them in a discussion on the various actors in the chain as they move from one chart to the other (each chart representing a particular actor with charts being arranged in a sequence of the value chain) Followed by the overview, the participants can go through short videos (e.g., three to four minutes duration) to get a practical perspective of value chain activities.
Value chain selection	In this 30-minutes-long activity, participants are divided into three to four groups. Each group walks across the training room, noting down value chain activities on their post-its. They can also write the sub-activities. Then the group will converge in their tables to generate a value chain they think fits their situation.
Value chain estimation	In this 30-minutes-long activity, the same groups will continue with their chosen value chain activities. This time, they will utilise the worksheets with cost heads and unit costs to develop the expenditure, income, and margin for a fixed number of farmers. At the end of this estimation, each group will again present their assessments.

Questions for Discussion

- Share your experiences of cultivating tomatoes and the returns you have seen in your area.
- What are the risks involved in harvesting, aggregating, and transportation stages? Do you suggest any solution to overcome such risks?
- Do you see any opportunities for cost optimisation at the FPO level? Give some examples.
- Do you see any potential to process tomatoes? What are those products? Do you know any value chain actors to market the processed tomatoes?
- What are the critical differences in the tomato value chain compared to other highly perishable products such as onion and potato?

Background Reading

1. Kureful TV (2021). How to start tomato farming in Orissa. Online: https://youtu.be/omFywjLELxs
2. Pro Farmers (2020). Open Field Tomato Planting in India. Online: https://youtu.be/Xy_LPU41GbE

3. College of Agricultural Banking (2018). A report on the study of tomato value chain and its financing. Online: https://cab.rbi.org.in/docs/Special_Study/A%20Report%20on%20The%20Study%20of%20Tomato%20Value%20Chain%20and%20its%20Financing.pdf

SESSION 7: AGRICULTURAL VALUE CHAIN OF POULTRY

Synopsis

Chapter 7 provides the participants with relevant concepts and data on poultry. Backyard poultry farming alone employs 30 million farmers in India.[1] The poultry value chain has many different stakeholders and activities. Of those activities, farmers can benefit the most from aggregating the input and marketing services.

Learning Objectives

After completion of the session the participants will be able to state the poultry value chain activities and their actors. Their poultry value chain understanding will help them select value chain activities that do viable business for their FPOs.

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Assessment of input business	Input wise assessment of opportunities for cost reduction by business participation as an input supplier	15	Chart, pens, and curated videos
3	Assessment of procurement business	Assessment of opportunities for enhancing economic rent by business participation as an aggregator	10	Charts, pens, markers, highlighters, tent cards
4	Assessment of processing business	Assessment of opportunities for enhancing economic rent by business participation as a processor	20	Charts, pens, and curated videos
5	Assessment of trading business	Produce wise assessment of opportunities for enhancing economic rent by business participation as a trader	15	Charts, pens, and curated material
6	Assessment of the multiple business activities	Assessment of the business participation potential at different stages in the value chain and through playing role of one or combinations	15	Charts, pens, and curated material

[1] Ministry of Agriculture & Farmers Welfare, Department of Animal Husbandry, Dairying & Fisheries. National Action Plan for Egg & Poultry-2022 For Doubling Farmers' Income by 2022. Online: https://www.dahd.nic.in/sites/default/filess/Seeking%20Comments%20on%20National%20Action%20Plan-%20Poultry-%202022%20by%2012-12-2017.pdf (p. 1)

		of the value chain actors		
7	Discussion and Feedback		10	Discussion Mode

TEACHING METHODS AND NOTES

Before organising the training session, the facilitator shall ensure all the materials used for the training are available in the local language.

TASKS	ACTIVITIES
Session introduction	Use a chart to present the session objectives
Overview of the poultry value chain	Using a combination of video and presentation, the facilitator will help the participants explore the concepts of the poultry value chain
Group Activity: Emerging alternate poultry value chain	In this 25-minutes session, participants will form three to four groups based on their location and FPOs. Based on its context each group discusses at what points they can participate in the value chain. The facilitators will consolidate and identify distinct value chain groups.
Poultry value chain estimation	The facilitator will explain a costing worksheet for the value chain estimation. Following explanation of details such as cost headings, unit costs etc, the participants are helped to draw up an action plan for estimation higher cost realisation through participation in the value chain.
FPO based value chain estimation	The facilitator can present a larger worksheet canvas. The canvas will have a column giving all the broad cost heads, with two to three columns presenting the distinct value chain approaches selected from the previous group activity. If the group wants to aggregate the activity at its FPO level, it can paste an amount in a sticky note in the column. At the end of the session, the facilitator can help the groups to total the figures and discuss the profit margin.

Questions for Discussion

- Share your experiences in the poultry value chain?
- What are the differences in broiler and country poultry varieties and their aggregation efforts?
- What are some of the challenges you have faced in procuring the inputs such as poultry chicks, feeds, and vaccinations?
- Share how you would network with the input suppliers and market the actors in very remote areas?
- Share some of your experiences if you have seen an increase in uptake of poultry products in villages in the last few years.
- Share your observations on how COVID-19 has impacted your local poultry industry?

BACKGROUND READING

1. FAO (2012). A Study on Production and Marketing of Poultry Eggs in Tamilnadu - India (with Reference to Namakkal District). Online: http://www.fao.org/sustainable-food-value-chains/library/details/en/c/263462/
2. Ministry of Food Processing Industries. Opportunities in meat and poultry sector in India. Online: https://mofpi.nic.in/sites/default/files/OpportunityinMeat&PoultrysectorinIndia.pdf

SESSION 8: AGRICULTURAL VALUE CHAIN OF INLAND FISHERY

Synopsis

In Chapter 8, the participants will explore the value chain actors, activities, and income potential of aggregation for the inland fishery. The first step will be to explore the actors involved in the value chain and the values they bring to the market. The participants can also develop an insight into the overall demand and supply situation across the producer and consumer states and inter-state markets. The session also provides a practical understanding of the potential earnings for the FPOs based on value chain optimisations.

Learning Objectives

After completion of the session the participants can:

- Describe in brief the value additions by the different actors in the inland fisheries value chain.
- Describe the demand and supply relationship across producing and consuming states across India.
- Based on this understanding, they will identify their niche markets.
- gain hands-on practice while estimating their gain after aggregating different value chain activities.

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Assessment of input business	Input wise assessment of various inputs and opportunities for the reduction of cost by business participation as an input supplier	15	Chart, pens, and curated videos
3	Assessment of procurement business	Assessment of opportunities for enhancing economic rent by business participation as an aggregator	10	Charts, pens, markers, highlighters, tent cards
4	Assessment of processing business	Assessment of opportunities for enhancing economic rent by business participation as a processor	20	Charts, pens, and curated videos
5	Assessment of trading business	Produce wise assessment of opportunities for enhancing economic rent by business participation as a trader	15	Charts, pens, and curated material
6	Assessment of the	Assessment of the business	15	Charts, pens,

	multiple business activities	participation potential at different stages in the value chain and through playing role of one or combinations of the value chain actors		and curated material
7	Discussion and Feedback		10	Discussion Mode

TTEACHING METHODS AND NOTES

Before organising the training session, the facilitator shall ensure all the materials used in training are available in the local language. Since the focus of the training session is the inland fisheries value chain, selected participants need to have exposure or interest in promoting inland fisheries.

TASKS	ACTIVITIES
Session introduction	Use a chart to present session objectives.
Inland fishery value chain: Overview	In the first 15 minutes of the session, the facilitator shall present the value chain activities for inland fisheries. Short videos for each activity shall accompany the presentation. In the next 15 minutes, the facilitator will elicit feedback on the actors and the values they add. Participants should try to highlight the local practices that consumers value. For example, sorting and grading based on sizes, transportation of live fish, etc. The participants may be asked to highlight which activities they think they can aggregate at an FPO level.
Market assessment	The facilitator provides the macro context of demand and supply across producer and consumer states. Then the participants shall form groups to discuss their local markets and develop a list of preferred value chain activities. Each group shall present their chosen list of value chain activities and the rationale for their selection.
Aggregation models	The facilitator first sets out how the participants need to estimate their chosen value chain activities. The group formation will remain the same as it was in the session on 'Market Assessment.' The participants need to know the current market rates for the activity in their local markets. The groups will complete and present their estimates using those market rates, their chosen value chain activities, and their available or projected available water bodies.

Questions for Discussion

- Share your experiences of engaging with the fishery farmers? What are the challenges they face?
- How many fishery farmers do you think you can mobilise in your collective? What are the benefits you propose to offer them?

- How strong or weak is your local fish market? Do you have the experience to market in cities and other states?
- What are the critical differences in dealing with fish as a commodity in your FPO compared to other commodities?
- What are the challenges you perceive for an FPO to support the fisheries value chain?

BACKGROUND READING

1. World Bank (2018). Renovated markets help boost incomes for Indian fishing communities.
2. Pupari Machhali Bhandar (2020). Fish packing Andhra. Online: https://youtu.be/PHhCk1m4z4o.
3. Neerulagam (2020). Katla fish farming, harvesting, ice packing. Online: https://youtu.be/m6JEOdwwdxc
4. Gift Tilapia Hatchery Tamboli Fish Farm (2021). Live fish Transportation for Market. Online: https://youtu.be/bFungZtKNSg
5. KikTV Network (2020). Biggest fish wholesale market In India. Online: https://youtu.be/5GPdJlrJ_Wo.

SESSION 9: AGRICULTURAL VALUE CHAIN OF MAIZE CROP

Synopsis

This session elaborated in Chapter 5 of the Reading Material, gives the participants a comprehensive overview of the maize value chain. Building on the overview, the session offers participants a few pointers on how to identify opportunities for FPOs at different steps/links in the maize value chain and see them as business models, each with differing risk profile and business potential.

Learning Objectives

After completion Session 1 of Day 3 of the Advanced Agri Value Chain module, the participant is able to:

- Describe the maize value chain
- Draw the maize value chain in the value chain ecosystem model introduced in Session 1
- List the different elements or parts of the maize value chain:
    - Actors
    - Activities
    - Product Flow
    - Money Flow
- Describe the interdependencies among the different elements or parts
- Understand the method to calculate the economics for the farmer - small farmer, medium farmer, and large farmer
- List the key challenges and inefficiencies in the maize value chain, in general
- List the challenges and inefficiencies at the farmers' level
- Explain each challenge or inefficiency in the maize value chain, using the value chain framework introduced in sessions 1 and 2
- Identify the opportunities for aggregation-based services and the benefit that can be delivered to the farmer and the FPO
- Identify the opportunities for mechanisation services and the benefit that can be delivered to the farmer (as cost reduction) and the FPO (as market margin)
- Rate the risk involved in each opportunity identified

Time Plan for Session

S. NO.	AREAS	DESCRIPTION	TIME (minutes)	MATERIALS
1	Session introduction	Session objectives and methods	5	Chart
2	Assessment of input business	Input wise assessment of opportunities for cost reduction by business participation as an input supplier	15	Chart, pens, and curated videos
3	Assessment of procurement business	Assessment of opportunities for enhancing economic rent by business participation as an aggregator	10	Charts, pens, markers, highlighters, tent cards

4	Assessment of processing business	Assessment of opportunities for enhancing economic rent by business participation as a processor	20	Charts, pens, and curated videos
5	Assessment of trading business	Produce wise assessment of opportunities for enhancing economic rent by business participation as a trader	15	Charts, pens, and curated material
6	Assessment of the multiple business activities	Assessment of the business participation potential at different stages in the value chain and through playing role of one or combinations of the value chain actors	15	Charts, pens, and curated material
7	Discussion and Feedback		10	Discussion Mode

TEACHING METHODS AND NOTES

TASK	ACTIVITIES
Task 1: Session objectives	Use a chart to explain session objectives
Task 2: Interactive Lecture	The facilitator uses an interactive approach to deliver a comprehensive lecture that helps the participant understand the paddy value chain. In the first part of the interactive lecture, the facilitator must introduce: • Key statistics about India's maize economy - production, seasonality, consumption, area under cultivation, productivity • The maize value chain, as it stands now • The illustrative economics (costs incurred and margins earned) for each player (farmer, primary trader, wholesaler, processor, dealers, retailers) • The major challenges - losses at different stages, farmers' share of consumer rupee • Key statistics and metrics that require attention and action - Then, the facilitator must initiate a discussion on the maize value chain, from the following two perspectives: • Farmer • Explore the changes in economics between small, medium, and large farmer Following this, the facilitator must: • Lead a discussion on the challenges farmers face • Lead a discussion on the opportunities for FPOs in serving farmers and building the FPO business • Farmer Producer Organisations (FPOs) – what are the areas

TASK	ACTIVITIES
	which can represent opportunities? • If the opportunities are pursued: • How does a farmer benefit? • How does the FPO benefit? (To understand this, the participants must understand the margin the FPO will make in each activity) • On the market side, what are the opportunities for the FPO? What additional per cent of the overall value can an FPO hope to claim? • What are the different scenarios possible and what is the business potential for an FPO in each scenario? • What business model does each of these assessments indicate for an FPO in the maize value chain? In conclusion, the facilitator must sum up by emphasising how each challenge-opportunity can be a business model for an FPO in the maize value chain. The opportunities must be discussed step by step, covering: • Inputs • Production System • Post-Harvest Management • Value Addition/Processing • Marketing • Export
Task 3: Q&A	The trainer will facilitate a Q&A session on this topic and conclude the session after summarising the key learnings.

Questions for Discussion

The facilitator or trainer can use the following trigger questions to engage the participants in a productive discussion or debate within the broad framework of the session:

- What is the sequence of activities from producer to consumer?
- Which are the leading maize producing states (percentage of total production) in India?
- What are the biggest challenges maize that farmers face with respect to inputs?
- What are the opportunities for an FPO as an input supplier for maize cultivation? How will it make a difference to the farmers and the FPO?
- What are the aggregation opportunities for an FPO in procurement of maize? How will it make a difference to the farmers and the FPO?
- What are the opportunities for an FPO in processing maize? How will it make a difference to the farmers and the FPO?
- What are the opportunities for an FPO in trading maize? How will it make a difference to the farmers and the FPO?
- Overall, what are the consolidated business possibilities for an FPO in maize?
- Are there activities in the maize value chain which are not as suitable for FPOs to get involved in?

BACKGROUND READING

1. Rajasthan Agricultural Competitiveness Project, Value Chain Analysis, Maize: RACP_VC_Maize.pdf (rajasthan.gov.in)

SESSION 10: CASE EXERCISE: VALUE CHAIN ANALYSIS OF CEREAL CROPS

SESSION 11: CASE EXERCISE: VALUE CHAIN ANALYSIS OF HORTICULTURE CROPS

SESSION 12: CASE EXERCISE: VALUE CHAIN ANALYSIS OF AGRI-ALLIED SECTOR

Note to the Facilitator: These three sessions are case study discussions on various crops/products. The facilitator can enquire about the crops/allied activities that the participating FPOs are involved in. The facilitator/trainer is encouraged to gather interesting cases – based on the participating FPOs' agri/agri-allied products.

SESSION 13: ACTION PLAN, FEEDBACK, AND VALEDICTION

SYNOPSIS

In this session, participants would prepare an action plan for agri value chain activities, offer feedback on the training, and then the session would end with a valediction.

TARGET GROUPS

The target groups include the members and officials/BoD of FPOs, and CBBOs.

LEARNING OBJECTIVES

After completing the session, the participants would have a draft Action Plan on what new value chain activities they will take up in their FPOs and/or CBBOs.

TEACHING METHODOLOGY

#	AREAS	DESCRIPTION	TIME (Minutes)	MATERIALS
1	Session introduction	Presentation	10	Presentation slides
2	Preparation of Action Plan for participating in Agri Value Chain activities	Activity	40	Paper and pen
3	Feedback	Interaction	20	Whiteboard
4	Valediction	Valediction	20	Certificates

TEACHING METHODS AND NOTES

TASKS	ACTIVITIES
Task 1: Session introduction	Set the session objectives and structure for the participants. Introduce the Action Planning Activity; you may give the participants the indicative contents/format of an action plan for FPO-participation in value chains.
Task 2: Preparation of Action Plan for participating Agri Value Chains	Ask the participants from the same FPO and to form groups and spend 25 minutes to develop an action plan for areas where the FPO and CBBO will participate in value chain activities. After the groups work on the task asks every group to contribute one point each on how to lend to FPOs without repetition. In this way, many unique ideas and suggestions can be gathered.
Task 3: Feedback	After completing the action plan activity, circulate a well-designed feedback form for each participant to fill (15 minutes) Open the plenary for oral feedback ensuring that every participant has spoken. (15 minutes)
Task 4: Valediction	Distribute certificates of participation to participants. Ensure the official group photo has been taken. Conclude the programme with a valediction for the participants.

QUESTIONS FOR DISCUSSIONS

- What are the essential elements of an action plan?
- What were the most useful sessions?
- Which sessions need improvement?
- What learning will you take back with you?

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Faculty

Faculty are drawn from NABARD, banks and scholars of respective fields and have pan-India level field experience. The faculty have specialization in Banking Finance, Financial Inclusion, Agriculture &Allied sector, Fisheries, Forestry and Human Resources, etc.

Infrastructure

43 acre green campus has world class infrastructure in terms of class rooms, simulation and AV Rooms, Board Room, Conference Hall, Auditorium, Library, Gym, Air-conditioned Hostel Rooms, Local and International cuisine.