

ICA 06802

WORKSHOP REPORT

For

Workshop on Doubling Farmers' Income: Exploring Pathways for Co- operatives in Odisha

Organised by

Verghese Kurien Centre of Excellence (VKCoE) – IRMA



In collaboration with

Department of Cooperation, Government of Odisha



and

International Cooperative Alliance – Asia Pacific (ICA-AP)



334.4:631
ICA-W.

29th and 30th August 2019

Conference Hall, Odisha State Cooperative Bank Ltd. (OSCB), Bhubaneswar



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LIST OF ABBREVIATIONS

Abbreviation	Full-Form	Abbreviation	Full-Form
AGCS	Auditor General of Co-operative Societies	GCMMF	Gujarat Co-operative Milk Marketing Federation Ltd
APICOL	The Agricultural Promotion & Investment Corporation of Odisha Limited	HR	Human Resources
APMC	Agricultural Produce Market Committee	IAS	Indian Administrative Service
ARCS	Assistant Registrar of Co-operative Societies	ICA-AP	International Co-operative Alliance - Asia and Pacific
ATMA	Agricultural Technology Management Agency	ICDP	Integrated Cooperative Development Project
BMC	Bulk Milk Cooler	ICOR	Incremental Capital Output Ratios
CCB	Central Co-operative Bank	ICT	Information and communications technology
CEO	Chief Executive Officer	IES	Indian Engineering Services
CM	Chief Minister	IFFCO	Indian Farmers Fertiliser Cooperative Limited
CTI	Computer Telephony Integration	IFP	Integrating Farm Practices
DEDS	Dairy Entrepreneurship Development Scheme	IOF	Investor-Owned Firms
DFI	Doubling Farmers' Income	IRDF	Rural Infrastructure Development fund
DGM	Deputy General Manager	IRMA	Institute of Rural Management Anand
DMEO	Development Monitoring & Evaluation Office	IT	Information Technology
DRCS	Deputy Registrar of Co-Operative Societies	JLG	Joint Liability Group
e-NAM	National Agriculture Market	KALIA	Krushak Assistance for Livelihood and Income Augmentation
ETDC	Executive Training and Development Centre	KCC	Kisan Credit Card
FCI	Food Corporation of India	KVK	Krishi Vigyan Kendra
FMCD	Fast Moving Consumer Durables	LAMPS	Large Area Multi-Purpose Societies
FMD	Foot and Mouth Disease		
MARKFED	Odisha State Marketing Federation	RBI	Reserve Bank of India

Abbreviation	Full-Form	Abbreviation	Full-Form
MD	Managing Director	RCS	Registrar of Cooperative Societies
MICM	Madhusudan Institute of Co-operative Management	RKVY	Rashtriya Krishi Vikas Yojana
MSP	Minimum Support Price	RRB	Regional Rural Bank
MT	Metric Tonnes	SARCS	Sub-Assistant Registrar of Co-operative Societies
NABARD	National Bank for Agriculture and Rural Development	SC	Scheduled Caste
NCCDS	Nabakrushna Choudhury Centre for Development Studies	SDG	Sustainable Development Goals
NCDC	National Cooperative Development Corporation	SFAC	Small Farmers' Agribusiness Consortium
NDDB	National Dairy Development Board	SHG	Self Help Group
NHB	National Housing Bank	SLBC	State Level Bankers' Committee
NSS	National Sample Survey	ST	Scheduled Tribe
NSSO	National Sample Survey Office	STCCS	Short Term Credit Co-operative Structure
OAS	Odisha Administrative Service	TAU	Teaching Aid Unit
OMFED	The Odisha State Cooperative Milk Producers' Federation Limited	TFG	Tenant Farmer Group
OSCB	Odisha State Cooperative Bank	USD	United States Dollar
OSCU	Odisha State Co-Operative Union	VAMNICOM	Vaikunth Mehta National Institute of Cooperative Management
PACS	Primary Agricultural Cooperative Society	VKCoE	Verghese Kurien Centre of Excellence
PCI	Per Capita Income	WDRA	Warehousing Development and Regulatory Authority

ACKNOWLEDGEMENTS

This report presents the outline of the proceedings of the two-day workshop on Doubling Farmers' Income: Exploring Pathways for Co-operatives in Odisha, jointly organised by the Department of Co-operation, Government of Odisha; Verghese Kurien Centre of Excellence (VKCoE), Institute of Rural Management Anand (IRMA) and International Cooperative Alliance – Asia Pacific (ICA-AP) on 29th and 30th August 2019 at Conference Hall, Odisha State Cooperative Bank (OSCB), Bhubaneswar, Odisha. The workshop aimed at discussing the current scenario and contemporary challenges faced by co-operatives in the state of Odisha in particular and arriving at suitable solutions, policy recommendations, and the way forward.

The contribution of many people from various organisations went into successfully conducting the workshop and preparing this report. First of all, we thank the **Department of Cooperation, Government of Odisha** for allowing VKCoE-IRMA an opportunity to co-organise this workshop in association with ICA-AP. We express our gratitude to **Shri Ranendra Pratap Swain, Honourable Minister of Cooperation, Government of Odisha**, for inaugurating the workshop and delivering the keynote address. We are thankful to our Chief Guest **Dr Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, and Higher Education** for his august presence and enlightening address. We are thankful to **Shri BB Patnaik, IAS, RCS, Government of Odisha** for delivering the welcome address. Our sincere thanks to **Prof. Hitesh Bhatt, Director, IRMA** for supporting the event from the beginning in various ways, including a briefing on the IRMA's role in cooperative development to the audience.

We are thankful to **Prof. Harekrishna Misra**, Chair Professor, VKCoE for briefing the audience on the conduct of the workshop and moderating various sessions. We are also thankful to **Shri Vir**

Vikram Yadav, IAS, Secretary, Department of Cooperation, Govt. of Odisha; **Shri Balasubramanian (Balu) Iyer**, Regional Director, ICA-AP; **Shri Akshyakumar Mohanty**, President, OSCB; **Shri Debendra Kumar Jena**, IAS, MD, OSCB; **Dr M Muthu Kumar**, IAS, **Director**, Directorate of Agriculture and Food Production, Odisha; **Dr K K Tripathy**, IES, Director, VAMNICOM; **Shri Manoranjan Pani**, Sr. General Manager (S&M), GCMMF, Anand; **Dr S. Ghosh**, **Director**, Madhusudan Institute of Co-operative Management, Bhubaneswar; **Ms Gayatri Patnayak**, Deputy Director (Statistics), RCS, Government of Odisha and **Ms Sarojini Mishra**, Chairman OMFED for their active participation and encouragement. Our sincere thanks to all the speakers and participants from various other organisations including **NITI Aayog**, **NDDB**, **NABARD**, **NCCDS**, **AGCS**, **Keonjhar CCB**, **OSCU**, etc. for their active involvement in the workshop.

We express our sincere thanks to the Session Chairs **Dr Patanjali Tripathy**, DRCS(Credit) I/C, Office of the Registrar, Cooperative Societies, Odisha; **Dr P K Mishra**, MD-MARKFED and **Dr Sushanta Panda** and theme moderators, **Prof Uday S. Saha**; **Prof S R Asokan**; **Prof Saswata Biswas**; **Prof Sridhar Vishwanath** and **Prof Shivshanker Singh Patel** who ably guided the proceedings. Our thanks are due to **Ms Shilpa Gole**; **Shri Mohit Dave**; **Shri Lav Bhardwaj**; **Shri Yashobanta Parida** and **Dr Avinash Ghule** who performed the role of rapporteurs and helped effectively in transcribing the proceedings.

During the workshop, the host organization, **Agricultural Cooperative Staff Training Institute and Odisha State Cooperative Bank (OSCB)** extended full cooperation in preparing the venue, providing the local logistics and accommodation to the participants. We acknowledge their kind co-operation and hospitality. We also thank the entire team of the **Verghese Kurien Centre of Excellence (VKCoE)-IRMA** for helping to put together this report. Lastly, our sincere thanks go

to various other people at IRMA - the **Faculty, Support Staff, Estate, Accounts, ETDC, Reception, TAU, Computers, and Transport section**, who helped us in many ways during and after the workshop.

EXECUTIVE SUMMARY

The Government of India's earlier policy for the agricultural sector growth centered on rising agricultural production and enhancing food security. While this strategy yielded good results for India's food production, it did not focus on the farmer. Recognising the need to focus on the plight of farmers, the Central Government set the target of doubling farmers' incomes by 2022-23 to promote farmers' welfare, reduce agrarian distress and bring parity between farmers' incomes and non-agricultural workers (Chand 2017).

NITI Aayog 2017 identified seven major revenue-enhancing sources of growth. These included: i) improvement in crop productivity; ii) improvement in livestock productivity; iii) resource use efficiency or saving production costs; iv) increase in cropping intensity; v) diversification towards higher value crops; vi) improvement in real farmer prices; and vii) shift from farm to non-farm occupations.

Co-operatives could play a significant role in six of the seven factors impacting the farm household income (NITI Aayog 2017). Indian co-operatives, however, work in diverse sectors, facing numerous problems. The situation is further compounded by the fact that 'Cooperatives' is a state subject under the Constitution of India and state co-operative laws differ greatly in their implementation (MoSPI).

In view of this background, a two-day workshop got underway on Doubling Farmers' Income: Exploring Pathways for Co-operatives in Odisha. The workshop was jointly organised by the Department of Co-operation, Government of Odisha; Verghese Kurien Centre of Excellence (VKCoE); Institute of Rural Management Anand (IRMA); and International Cooperative Alliance – Asia Pacific (ICA-AP) at the Conference Hall, Odisha State Co-operative Bank (OSCB),

Bhubaneswar, (Odisha) on August 29-30, 2019. This was the first in a series of four workshops in consultation with various state governments.

The workshop aimed at reviewing the current scenario and contemporary problems facing co-operatives in the state of Odisha and finding suitable approaches, policy recommendations, and development. It brought policymakers, bureaucrats, functional experts in the co-operative sector, co-operators, academicians, and researchers on the same platform to discuss, debate, and establish a roadmap for the Odisha government to follow DFI.

The workshop offered strategic perspectives, setting the stage for the delivery of the workshop over the next two days; it was attended by state-led policymakers, Shri Ranendra Pratap Swain, Honourable Minister of Cooperation, Government of Odisha, and Dr Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, and Higher Education.

Panel discussions led by subject matter experts were also organised to introduce diverse perspectives on the co-operative system and its role in doubling farmers' income. Included within the discussions was an overview of Odisha's co-operative ecosystem from various standpoints including co-operative banking, dairy and agriculture, the role of IRMA in the Anand pattern, the role and experience of GCMMF in modelling successful farmer engagement/dairy entrepreneurship through market orientation, an overview on regional co-operation for DFI in the context of policies, markets and networks, the role of competence enhancement through research, training and capacity building in the co-operative sector, and policy perspectives.

Taking into account the seven sources of farmers' income growth (NITI Aayog 2017), the workshop concentrated on four thematic discussions, each of which was a DFI facilitator. These included: 1) Governance and Leadership in Co-operatives; 2) Infrastructure Services and

Convergence; 3) Member Centrality; and 4) Government Strategies and Policies. The theme-level exercises aimed to draw inspiration from the strategic insights and chart possible routes to support the DFI implementation in Odisha.

Key recommendations from the discussion on Theme 1 include the following: Governance, Leadership and Human Resources in Cooperatives for enabling DFI focussed on member participation, the need for transparency and accountability, and the need for a purpose or a common cause among the members of a co-operative.

Important inputs for Theme 2: Member Centrality in Co-operatives for enabling DFI, included the need for a co-operative member database, understanding the needs and expectations of members, more inclusive leadership and governance, diversifying the purposes and services of the co-operative, incentivisation for member retention, member succession plan, ease of access, quicker turnaround time of co-operative services, and a convergence plan to streamline services to members.

Theme 3: Infrastructure, Services and Convergence of Ecosystem for enabling DFI. It highlighted the need for improved infrastructure for paddy procurement, cold chain for vegetables, quality assurance of agricultural produce, a robust farmer database, ICT-enabled information services, professional input services, marketing infrastructure development, diversifying manpower in PACS, and scope for warehouse receipt financing.

Finally, Theme 4: Government Strategies and Policies for enabling DFI, which focussed on conveying government schemes to farmers effectively through planning and targeting, creating awareness, monitoring outcomes and impact, and institutional and policy convergence.

After covering four themes, all the participants consolidated their deliberations and created a prioritised action plan with recommendations to the Government of Odisha for consideration.

1. INTRODUCTION

Human societies have engaged in impressive feats of organised co-operation for thousands of years now. Carving mountain terraces, planting and harvesting crops, building granaries, and managing city-states all involved extraordinary levels of community co-operation (Kevin 2017)ⁱ. Co-operation, on broader lines, is the mechanism through which a community of individuals or larger organisations work together with mutually defined goals and methods for collective or mutual benefit. It is a voluntary arrangement in which two or more people (or organisations) work or act together for a shared goal or benefit. While considered the antithesis of competition, the need or urge to compete with others is a very common motivation for collaboration that motivates individuals to unite into groups and work together to form a stronger force. Hence, a co-operative (also known as a co-op) has been defined in the International Co-operative Alliance (ICA) Statement on the Co-operative Identity as "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise"ⁱⁱ.

1.1. The Indian Co-operative Movement

Thinkers and world leaders like Robert Owen, Dr William King, Friedrich Wilhelm Raiffeisen and Franz Hermann Schultz-Delitsch stimulated the celebrated success of co-operative communities like Rochdale Society of Equitable Pioneers (1844) in England and the Credit Unions (1862) in Germany and went on to gain popularity around the world including India. The ceremonial beginning of the co-operative movement in India dates back to 1904 when the first Cooperative Credit Societies Act came into existence under the British rule. Since this 1904 Act concentrated exclusively on mutual credit, the legislation was amended by enacting another Co-operative Societies Act of 1912. The new Act provided legal protection to all types of co-operatives,

including central financing agencies and supervising unions. Co-operation became a provincial subject in 1919, and under the Montague-Chelmsford Reforms, provinces were allowed to create their own co-operative legislation. The prime objective of the co-operation that emerged during that time was to safeguard farmers' interests from greedy money lenders. Since then, the co-operative model has spread across industries, contributing to the development of numerous co-operatives across the country. About 8.5 lakh co-operative societies with a collective membership of about 290 million are in existence today.

The Co-operative Movement in Odisha

As far as Odisha is concerned, Utkal Gourav Madhusudan Das, Raibahadur Bidyadhar Panda, and Sri Bala Mukunda Kanungo are considered pioneers of the state's co-operative movement. Utkal Gourav Madhusudan Das was instrumental in starting the first consumer co-operative store, well before the enactment of the first legislation on co-operatives in the country, in Cuttack in 1898. Following in his footsteps, Shri Raibahadur Bidyadhar Panda founded the first village credit co-operative society in 1903. He subsequently formed the Banki-Dompura Central Cooperative Union, establishing 50 member co-operative credit societies in 1910.

The early emergence of the co-operative movement in Odisha was part of the larger movement in Bengal that included both Odisha and Bihar. The co-operative movement continued to develop in the state even after its separation from Bengal. In 1935, Bihar and Odisha adopted a separate Co-operative Societies Act which allowed and encouraged the state to diversify the movement. 1936 can be considered a turning point for the state's co-operative movement. The Tikabali Marketing Society was founded in Phulbani to market agricultural surplus products and small forest products collected in the tribal area. In a long history of hundred plus years, the state has witnessed the enactment of new laws as well as amendments in the existing Acts of co-operatives. This is evident

from the “The Odisha Cooperative Societies Act” in 1951 which was replaced by the Odisha Cooperative Societies Act 1962 to be subsequently updated with major amendments in 1991 and 1996. Afterwards, The Odisha Self-Help Co-operative Act 2001 was enacted in 2002 and amended in 2008 to recognise co-operative societies as self-help and democratically managed business enterprises. The act was repealed in 2013 to bring all co-operative societies under the ambit of the Odisha Cooperative Act, 1962, which was amended in conformity with the 97th amendment of the Constitution. This narrative emphasises the felt need as well as the importance of the co-operatives in the socio-economic fabric imbuing members with the values of self-help, self-responsibility, democracy, equality, equity, and solidarity.

1.2. Co-operatives and Farmers’ Income in Odisha today

An agrarian state, Odisha’s unique geo-climatic conditions and high socio-economic vulnerability are mostly responsible for determining the socio-economic status of rural households. Roughly 58% of rural households depend on the agricultural sector for their livelihood. In addition, about 56% of the workforce is also dependent on the agricultural sector, 54% of which are male and 62% female (Some Characteristics of Agricultural Households in India, NSS 70th Round, 2013). The average monthly income of the agricultural households was estimated as Rs. 4,976. Of the overall average income of the agricultural households, the average monthly receipt from crop production was estimated at Rs. 1,407 during the agricultural year July 2012- June 2013 (Income, Expenditure, Productive Assets and Indebtedness of Agricultural Households in India, 2013). Several sectors in Odisha have the ability to increase farmer’s revenues through mechanisation and farmer-centred policies. Recently, the Dalwai Committee report recommended doubling farmers’ incomes by raising crop productivity, improving livestock productivity, using resources efficiently or saving production costs, raising crop intensity, diversifying into higher-value crops,

improving farmers' real prices, and shifting from farm to non-farm occupations. The committee noted that there was an inverse relationship between agricultural income and rural poverty. An increase in agricultural income reduces poverty and vice versa. Therefore, it is pertinent to increase agricultural incomes to combat poverty, especially in rural areas.

The Dalwai Committee reported all-India agricultural household incomes in 2015-16 to be Rs. 96,703 at current prices; Rs. 58,246 from agriculture and Rs. 38,457 from non-farm activities. This revenue has to hit Rs. 242,988 by 2022-23 at current prices and Rs. 172,694 at constant prices. In Odisha, the income of an agricultural household was Rs. 63,285 in 2015-16 of which Rs. 34,463 was farm income and Rs. 28,222 was from non-farm sources. The income has to rise to Rs. 157,018 by 2022-23 at current prices and Rs. 118,747 from the constant price of which the contribution from agriculture and non-agriculture should be Rs. 78,192 and Rs. 40,556 respectively. The Committee on DFI observed that the income of the agriculturally less-developed states and union territories needed to be accelerated to more than double their income. The mean income of Odisha is Rs. 63,285 and that of India Rs. 96,703; the difference is Rs. 33,412. Consequently, Odisha's agricultural household income has to grow at 12% to reduce the gap.

Multiple factors and several economic sectors are responsible for raising farmers' incomes in Odisha, among them the co-operative sector. The Primary Agricultural Co-operative Societies (PACS) in Odisha may have played a significant role in enhancing farm income by providing credit, co-ordinating agriculture marketing, and offering agricultural inputs to small and marginal farmers. There are 2714 PACS in Odisha spread over 30 districts. Of the nearly 1.8 million farmers borrowing from PACS, 55% have used paddy crop financing. Further, 34% of farmers have sold their paddy through PACS at minimum support price (OSCB Annual Report 2009-10, p106).

In addition, according to the Odisha State Co-op Bank annual report 2009-10, about 94% of agricultural households are members of PACS in the state. Between 2007 and 2017, PACS disbursed 66% of crop load to the farmers and 34% to the RRBs and commercial banks (Registrar, Co-operative Societies, Odisha). Statistics indicate that PACS plays a significant role in improving rural households' socio-economic conditions compared to RRBs and commercial banks by providing small and marginal farmers with crop loans.

Motivation for Conducting the Workshop

In a major departure from its past policies of concentrating solely on production, the government is now also focused on the product's marketability. This deviation has primarily occurred for Doubling Farmers' Income (DFI) by 2022. Collectives of farmers like co-operatives, particularly those involved in high-value agricultural and related products, have a significant role to play in achieving the specified objective of doubling farmers' incomes. The co-operatives have been evolving under the influence of different factors. These components need to be calibrated and configured according to the criteria for addressing the current problems of various co-operatives at large and agricultural co-operatives in particular.

1.2.1. Primary Agricultural Co-operative Societies (PACS): Current understanding and Future Strategy

The Indian Primary Agricultural Co-operative Societies (PACS) are at the bottom of the three-tier co-operative system; they promote members' economic interests according to co-operative principles, instill the saving habit within members, and provide short and medium-term credits. The Reserve Bank of India has taken a number of measures to ensure the viable existence of PACS and to ensure the proper and timely flow of co-operative credit to rural areas, including providing

larger funds for poor companies to write off their losses, bad debts or overdues and to address regional imbalances in co-operative growth with the relevant state governments.

Table 1: Selected Indicators of Primary Agricultural Credit Societies (PACS) in Odisha as compared to other parts of India

(2017-18)

Regions/States	Total Number of PACS (Nos.)	Societies in Profit (%)	Societies in Loss (%)	Viable (%)	Potentially viable (%)	Dormant (%)	Defunct (%)
Northern Region	13,452	71.51	27.33	31.09	14.38	0.82	0.68
North-Eastern Region	3,524	20.09	23.52	55.45	11.69	18.93	10.90
Eastern Region	18,620	22.99	52.82	76.05	15.40	3.17	2.21
Central Region	15,478	52.54	30.60	79.86	14.46	2.54	1.11
Western Region	29,782	50.21	45.73	70.50	25.85	2.03	1.13
Southern Region	14,739	60.32	36.23	73.17	20.01	2.13	0.88
India	95,595	48.73	39.79	67.41	18.94	2.80	1.60
Odisha	2,701	27.40	69.05	63.35	22.73	0.37	0.04

Source: *Indiastat*, Author's calculations

Despite concerted efforts by the apex bank and the state and central governments to support the co-operatives, their performance has not been satisfactory. In the case of Odisha, the co-operative infrastructure has not been used efficiently and effectively. Despite a large co-operative member base of around 55 lakh farmers, only half of them transact with the co-operatives, indicating the under-use of co-operative services. Moreover, they do not have a strong business model which can make them sustainable in the long term. They also face workforce problems, including the lack of skilled human resources. Besides, people in villages still depend on unorganised sources such as money lenders, *mandis*^{viii}, and traders and so on, limiting the use of PACS' services.

Hence, due to significant cumulative losses, a substantial number of PACS face losses or liquidation. These factors need to be defined and various interventions designed to make the PACS more robust and resistant to external and internal shocks. In other words, PACS' viability criteria

need to be updated, which is also a viability target for implementing the Vaidyanathan Committee recommendations of 2004.

1.2.2. Thrust Areas for Interventions in Co-operative Development for DFI in Odisha

Various co-operatives have played a vital role in the procurement, processing, and marketing of diverse agricultural products and representing farmers at the local, state, and national level. Over the years, co-operation has persisted and developed in the presence of various macro as well as micro-environmental factors that are primarily a mix of some crucial areas like **1) Governance, Leadership and Human Resource in Co-operatives, 2) Infrastructure, Services and Ecosystem Convergence, 3) Member Centrality, and 4) Government Strategies and Policies.** Researchers and co-operators find these factors relevant to contemporary challenges. Hence, we want to explore these elements in depth to resolve the thrust areas, recognise problems, and explore opportunities in our co-operative effort to double the farmers' incomes for the Odisha state through this workshop.

1. Governance, Leadership and Human Resource in Co-operatives – Enabling factors for DFI

Effective and ethical leadership, which impacts lives, has been the backbone of the co-operative movement. The approach and methods adopted by leaders to achieve the imbibed objectives of cooperative development, often reflect the dominant culture of their times. At the same time, it also forms the basis for co-operative governance structure. A governance structure that enshrines efficiency, transparency, accountability and most importantly, collective participation in the system can be relevant at any point in time. The evolution of the co-operative system, including the design and scope of activities, has primarily established two types of leadership.. The types include democratic and professional or bureaucratic leadership; both demand higher levels of professionalism. Both leadership methods optimise co-operation and organise resources efficiently

through a fluid governance framework, leading to a more harmonious system. This type of co-operative can, potentially, make a difference to several lives if backed by an effective and functional legal system that is relevant to the times and forms a guiding principle for the creation of collective legislation. Since the co-operative is a group of people in a more or less permanent association, it is organised for their collective action and sense of belonging. It helps inculcate entrepreneurial skills and management practices among farmers, making them more competitive. For most non-delivery co-operatives, the harm came from within. Leadership crisis may often be evident at both political and professional levels. The leadership should reflect the farmer's confidence. At the same time, it is also necessary to attract and maintain talent in a co-operative system to offer it skilled management.. Consequently, effective leadership and quality governance structure pave the way for a successful co-operative movement in the country.

- Focussed Development Programmes and Positive Narration:

Rigorous awareness campaigns and members' skill development workshops for co-operative leadership and operational development can be achieved by disseminating the latest literature. Organising occasional training and demonstrations can also help the farmers stay up to date. There is a need to develop contemporary role models who can be a source of inspiration. Successful co-operatives may be instrumental in fostering these profiles. This storytelling will create a 'positive narrative'. It will also encourage the younger generation to run co-operatives, which, in effect, will help introduce new ideas and shield membership engagement.

2. Infrastructure, Services and Ecosystem Convergence– Enabling factors for DFI

Infrastructure is a fundamental prerequisite for the service of the entity and is necessary for the functioning of its economy. The entity may be an area, e.g. country, city, or an organisation. Co-operatives do need infrastructure to support their operations. An insufficient equity base, unstable

active membership, ageing infrastructure, and underutilisation of existing infrastructure are some of the major impediments to co-operative sustainable infrastructure growth. A prominent example of infrastructural under-use is the large micro-storage network in the entire state of Odisha. These structures are used only for 30-40 days in a year, which is a serious underutilisation of infrastructure. In terms of consolidation, the possibility and viability of linking women SHGs and JLGs with co-operative infrastructure should be explored. Odisha's 39.42 lakh members can be systematically linked to the co-operative structure through a feasible convergence approach.

Some of the areas which need special attention are as follows:

- Value Chain Financing for Co-operatives: Collaboration between Co-operatives:

Value chains in agriculture comprise a set of actors who conduct a linked sequence of value-added activities involved in bringing the product from its raw material stage to the final consumer. Value chain finance refers to the financial flows to those actors both from within the value chain (e.g. when an input supplier provides credit to a farmer, or when a lead firm advances funds to a market intermediary) and from outside (e.g. a bank issues a loan to farmers on the basis of a contract with a trusted buyer or a warehouse receipt from a recognised storage facility), as a result of being linked within a value chain.

The three-tier structure in the agricultural credit sector provides ample scope for value chain financing on the basis of capabilities of different tiers. In short, we need to instill a culture of co-operation between co-operatives. In Odisha, finance can be made available for crops such as rice, turmeric, coconut, ginger, cotton, maize, sugarcane for production, processing and storage. Innovative financial interventions for the production and processing of lemongrass by Koraput DCCB are a case in point.

- Revitalisation of Post- Harvest and Agro-Processing Co-operatives:

It is now clear that in order to increase farmers' income, they must become part of the agri-value chain component. Hence, we need to focus equally on rural manufacturing-based and processing-based models, as opposed to solely agricultural-production based models. Focus must shift from increasing productivity per acre to gainfully employing farm households in other farm-related activities.

- **Role of Co-operatives in Strengthening of Agricultural Marketing:**
 - Agricultural marketing operations should be broadened beyond the PACS' commission agent model for paddy, oilseed, pulses, and millet. Backward and forward linkages for value addition for income enhancement are also necessary. As the committee on DFI stressed, co-operatives were recognised as a means of aggregating farmers to set the scale in their production and marketing activities; yet they achieved limited success over the years, except in states like Maharashtra (MAHAGRAPES) and Gujarat (GCMMF-AMUL). The co-operatives stimulated lowered transaction costs and increased smallholders' bargaining power vis-à-vis international traders. PACS for Service Delivery and Rural Interventions:

PACS capacity assessment for service delivery to farmers is required. Other intervention areas for improving PACS' capabilities include different input distribution models for farmers such as credit, fertilisers, pesticides, seeds, PDS goods, digital services, and crop insurance. Their delivery performance needs assessment. Changes are required to make delivery of services effective and financially viable.

3. Member Centrality – Enabling factors for DFI

All stakeholders in the co-operative entity must have a shared sense and understanding of the organisation's purpose, vision and mission. In other words, they should have a stakeholder co-

operation approach. So, who are the stakeholders of such a co-operative? Members first; obviously, no one is above the members in the co-operative structure; yet the answer to the question ‘who can be a member?’ is arbitrary. The guidelines should be stipulated and properly enforced. Simultaneously, the idea of member centrality assumes paramount importance as co-operatives are member-driven businesses. Therefore, co-operatives must strive to provide whatever the members want. The duty rests solely with the leaders of co-operatives to provide for their colleagues. The leadership then is essential to the functioning of a co-operative. Particularly essential is the principle of domain centrality – wherever the co-operatives are, whatever their geographical authority, one must pursue opportunities for their members.

- **Farmers’ Database Creation and Management:**

The importance of record-keeping has long been realised and highlighted but remained a poor aspect of management, especially in farmers collectives like co-operatives. Although the co-operatives keep records, most of them are mainly related to the regulated financial and business transactions. Keeping good records is crucial for an organisation, whether they are private, public, or co-operative, particularly those involved in business activities. The recorded data helps control costs, whether for human resources, inputs, operations, regulatory or tax-related, and helps boost revenues. Therefore, collecting, storing and effectively analysing the data is vital.

Rather interestingly, ‘the co-operative member’ who is an integral part and a valuable asset of the co-operative, receives minimal individual attention for record keeping. It may be difficult to find co-operatives that maintain detailed records of their members (and /or transacting non-members). The development and management of a co-operative member (farmer) database must be prioritised. The reason is that aggregating farmers’ data on agricultural operations and socio-economic characteristics will establish such a Farmer Database. The database, in addition, could

help the co-operative exploit data to boost sustainability. The database will benefit farmers in many areas like agriculture operations including crop selection and planning, mechanisation, soil testing and crop insurance. It can help farmers get financial assistance from banks, NBFCs, and co-operative societies. Farmers can also receive assistance through this database system in the marketing process of various agricultural products. Equally significant, better use of farmers data can generate value for the environment as technological interventions based on the available information can increase the efficiency of farm inputs including seeds, fertilisers, and pesticides. In short, such a system can help improve the targetting of businesses and schemes, to identify and categorise farmers' needs and opportunities for service, to customise them as required, and to strengthen consensus decision-making in the organisation.

4. Government Strategies and Policies – Enabling factors for DFI

Government Strategies and Policies are the mechanisms by which systems, including public services, as well as laws, schemes, regulations, norms and routines, are defined as guidelines for the socio-economic behaviour of individuals or organisations. Co-operative legislation is one of the main factors that form the foundation of co-operative approaches and policies. Co-operative legislation also forms the guiding principle for the development of co-operative bylaws and tax regulations. Co-operative being a state subject, a separate co-operative Act is applicable to each state. Such acts may or may not be modified in compliance with the expected time criteria. An act can be amended to remove a perceived fault, correct a problem or omission, or to update it. The need must also be felt to change the legislation. In addition, it requires a comprehensive understanding of the current provisions and ideal framework which can make the system more robust. Enabling strategies and policies are necessary but not a sufficient condition, as they also need to be enforced successfully. Designing an organisation with a clear structure for executing

these plans and policies is, therefore, of utmost importance. In addition, it is also important to review these policies and strategies before they become outdated and revised in order to make them applicable to the current scenario. This also calls for more deliberate focus.

Through the perspective of enhancing the quality and effectiveness of service delivery for farmers, it would be useful to conduct an exercise leading to restructuring and reorganisation. It would also be useful to undertake an exercise of re-mandating co-operative organisations to resolve the current and future needs of India's agriculture, with a near-term focus on doubling farmers' income (DFI). In doing so, the government must stand to benefit from deriving optional outcomes from its organisations at both individual and collective levels.

1.3.. Rationale

While empowering farmers to boost their incomes is a complex process, it has become a key indicator of sustainability to be widely measured at different levels along the supply chain, particularly for farm commodities, due to their direct effect on the farmers' standard of living. Adopting modern, creative, effective, and agile approaches will make resources more competitive and help increase farm income. Our goal is to identify novel methods along the agri-supply chain, cultivate them to maximise dividends from farm enterprises and move closer to Doubling Farmers' Income (DFI). The workshop **'Doubling Farmers' Income: Exploring Pathways for Co-operatives in Odisha'** aimed to be a step closer to this target. The workshop also aimed to create a rich knowledge base and an actionable research agenda, in line with current policies. It also sought to resolve the state's co-operatives' contemporary problems. This workshop also anticipated critical policy-level guidelines for the entire co-operative sector.

1.4. Conduct of the Workshop

This workshop sought to put together policymakers, officials, co-operative technical experts, co-operators, scholars, and researchers on a forum to debate, reflect, and find a pathway for the Government of Odisha to pursue DFI. *The workshop was conducted over two days with the agenda* as given in Annexure 1.

During the workshop, the state's policymakers offered their strategic insights and set the tone of workshop deliverables over the next two days. The workshop focussed on four themes, as explained in section 1.4.2. These themes were 1) Governance and Leadership in Co-operatives; 2) Infrastructure Services and Convergence; 3) Member Centrality; 4) Government Strategies and Policies. The theme-level exercises aimed at drawing ideas from strategic insights and outlining a potential roadmap to support DFI implementation in Odisha. After covering four themes, all the participants pooled their deliberations and created a prioritised action plan with recommendations to the Government of Odisha for consideration.

2. INAUGURATION

On behalf of the Government of Odisha, the representation of the Department of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development and Higher Education followed by the Department of Co-operation, Food Supplies and Consumer Welfare, was the highlight of leading the inaugural session. **Dr Arun Kumar Sahoo**, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development and Higher Education was the Chief Guest, and **Shri Ranendra Pratap Swain**, Honourable Minister of Co-operation, Government of Odisha was the Guest of Honour. **Shri Akshyakumar Mohanty**, President, Odisha State Cooperative Bank (OSCB), **Shri Manoranjan Nayak**, Secretary, Odisha State Co-operative Union and **Smt Sarojini Mishra**, Chairman, OMFED also attended this session.

Shri Vir Vikram Yadav, IAS, Secretary, Department of Co-operation, Government of Odisha, **Shri B B Patnaik**, IAS, Registrar of Co-operative Societies (RCS), Government of Odisha, **Shri Debendra Kumar Jena**, IAS, Managing Director, Odisha State Cooperative Bank (OSCB), **Dr M Muthukumar**, IAS, Director Agriculture and Food Production, **Dr Tribikram Pradhan**, IAS, Additional Secretary, Excise Department, **Dr Subhrendu Sekhar Dey**, IAS, Managing Director, APICOL and **Dr Pratap Kumar Mishra**, OAS, Odisha State Co-operative Marketing Federation (OSCMF), **Shri Balasubramanian (Balu) Iyer**, Regional Director, International Cooperative Alliance-Asia Pacific graced the inaugural session. It was worth noting that the Department of Co-operation and OSCB were the main sponsors of the workshop.

Dr N Tirumala Naik, Director, Fisheries, **Shri RC Sahoo**, DGM, NABARD, **Shri Manoranjan Pani**, Senior GM (S & M), GCMMF, **Shri Niranjan Baral**, I & PR, **Shri Tapas Kumar Saha**, Department of Co-operation, **Shri SK Sethi**, Joint AGCS, **Dr Patanjali Tripathy**, Department of

Co-operation, Shri BP Mohanty, Amul, Shri RK Nayak, APICOL, Shri Swastik Jena, CCB, Shri SK Ejaj Alli, Department of Co-operation, and Ms Chinmayee Charudarshini, OSCU were present. Prof Hitesh V Bhatt, Director, Institute of Rural Management Anand (IRMA); and Prof Harekrishna Mishra, Chair, Verghese Kurien Centre of Excellence (VKCoE)-IRMA steered the inaugural programme.



On the Dais

From L to R: Prof Harekrishna Mishra, Chair Verghese Kurien Centre of Excellence (VKCoE)-IRMA; Shri Balasubramanian (Balu) Iyer, Regional Director, International Co-operative Alliance-Asia Pacific (ICA-AP); Prof Hitesh V Bhatt, Director Institute of Rural Management Anand (IRMA); Shri Akshyakumar Mohanty, President, Odisha State Co-operative Bank (OSCB); Shri Ranendra Pratap Swain, Honourable Minister of Co-operation, Government of Odisha; Dr Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development and Higher Education; Shri Vir Vikram Yadav, IAS, Secretary, Department of Co-operation, Government of Odisha; Shri B B Patnaik Registrar of Co-operative Societies Government of Odisha; Shri Debendra Kumar Jena, Managing Director, Odisha State Co-operative Bank (OSCB).

Shri Ranendra Pratap Swain, Honourable Minister of Co-operation, Government of Odisha, inaugurated the workshop and it began with the auspicious lamp-lighting ceremony.



Lamp Lighting

From L to R: Shri Vir Vikram Yadav, Secretary, Department of Co-operation, Government of Odisha; Shri Debendra Kumar Jena, Managing Director, Odisha State Cooperative Bank (OSCB); Shri Ranendra Pratap Swain, Honourable Minister of Co-operation, Government of Odisha; Dr Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development and Higher Education.

Shri B.B. Patnaik, IAS, Registrar of Co-operative Societies (RCS), Government of Odisha in his welcome address said that the focus on increasing farmers' income had gained momentum ever since our honourable Prime Minister expressed the desire to double the income of our farmers' by the year 2022-23, when the country completes 75 years of independence. Shri Patnaik shared that, as per the agricultural census, there are around 47,00,000 farmer families in Odisha, out of which 83% are small and marginal farmers. He added that, according to the Odisha state economic survey, the average income of those farmers' was Rs. 7,731 per month. Despite that, many of those farmers were dependent on *Mahajans* and *Sahukars*ⁱⁱⁱ for their credit needs. He added that the landholdings were fragmented, which kept getting further divided. The average landholding in

Odisha was only about 1 hectare. That is why, he stressed, the subject of doubling farmers' income was so relevant in the current scenario. He especially touched upon two aspects – **1) production and, 2) marketing to get remunerative price for the produce.** He said that these two aspects were dependent on several other components like sources of irrigation, quality seeds, pest management, post-harvest management, farm mechanisation, value addition, marketing systems, crop insurance, and agricultural credit. Promoting ancillary practices such as poultry, animal husbandry, and fisheries was also important alongside agriculture. At the same time, forming farmer producer organisations, granting rights to sharecroppers, and offering timely credit could gradually get the farmers out of the clutches of *Mahajans* and *Sahukars*. The Government support schemes such as KALIA, Pradhanmantri Fasal Bima Yojana and Pradhanmantri Kisan Samman Yojana, hold the key to this DFI goal. He said that co-operatives could play a vital role in agricultural credit, farm inputs, post-harvest management, value addition and marketing. He emphasised that the success of co-operatives depended on professional management and technological usage, while ensuring the rights of producer members, where a strong sense of motivation and dedication to the cause on the part of interest bearer was needed. He hoped that the gathering would deliberate extensively on all these issues, particularly in the context of Odisha during the two-day workshop and emerge with a road map to accomplish the ambitious aim of doubling the farmers' incomes.



Shri BB Patnaik, IAS, RCS, Government of Odisha



Prof. Harekrishna Misra, Chair Professor, VKCoE – IRMA

Prof. Harekrishna Misra, Chair Professor, Verghese Kurien Centre of Excellence (VKCoE) – IRMA, briefed the gathering about the conduct of the workshop. Highlighting the themes for the workshop, he emphasised that the workshop sought to recognise the present co-operative situation and policy architecture in Odisha, while matching it with the target of doubling farmers' incomes. He said that as the workshop progressed, panellists would present their views on various aspects including an overview of DFI's regional co-operation in the context of policies, market and networks. He also mentioned an overview of DFI and its policy perspective, specifically related to Odisha, the role of academic institutions like IRMA in fostering a co-operative movement through research, training, and capacity building. He further spoke about the Odisha co-operative ecosystem including credit, agriculture and allied activities, along with opportunities and challenges in various sectors as far as DFI was concerned, while executing farmer engagement through market orientation successfully. Prof. Misra further added that after the panel discussions, there would be group exercises focussing mainly on four themes viz. A) Governance, Leadership and Human Resource in Co-operatives, B) Member Centrality, C) Infrastructure, Services and Ecosystem Convergence, and D) Government Strategies and Policies. He said that the participants would share their ideas independently and engage in the discussions. He hoped that all the theme sessions would be productive and the ideas emerging from them would be well-thought-out, setting

the workshop course. He suggested that both opinions and recommendations would eventually be combined to assess the path forward and future course of action towards DFI's target. Speaking on the occasion, **Shri Vir Vikram Yadav**, IAS, Secretary, Department of Cooperation, Government of Odisha, said that the time had come for a change in the role of co-operatives. He said that the age-old co-operative philosophy might not be sufficient to sustain them in the same way in future. He added that while searching for a way to meet the aim of doubling farmers' incomes, there was a need for co-operatives to reform their way of operating, their tasks and duties, and how they could go forward. He stressed that the authorities would look forward to the results of the workshop from the department's perspective. Wishing everyone well, he expressed the hope that the brainstorming of all the dignitaries present in the workshop would generate very good and concrete suggestions. He concluded by saying that the department looked forward to implementing the outcomes and recommendations of the workshop.



Shri Vir Vikram Yadav, Secretary, Department of Co-operation, Government of Odisha



Prof. Hitesh V Bhatt, Director, IRMA

Prof. Hitesh V Bhatt, Director, Institute of Rural Management Anand (IRMA), said that the delegation present in the workshop was a perfect mix of political leaders, academicians, government officials and civil society ready to accept new ways of doing things to help us make empowered decisions. He thanked the VKCoE for organising the workshop with the Government

of Odisha, particularly the Department of Co-operation, and hoped that the workshop might find out new ways of supporting people who needed it the most. He explained that IRMA came into existence with a specific mandate, and this workshop was an extension of that. He said IRMA was founded in 1979 with the mission of professional organisations' helping farmers. The second part of the mandate was to help rural people form their own co-operative models to make their lives better and help them find new ways of running their organisations in unison for better market access sans intermediaries. Prof. Bhatt said IRMA's work against this mandate over the past 38 years had been very successful. He added that 38 batches of the PGDRM course had graduated from the campus, constituting about 3,150 alumni worldwide. He said IRMA alumni had made a difference not just for themselves but also for those they worked with. Prof. Bhatt also said that Dr Kurien had helped IRMA see a radically different approach to business models. Dr. Kurien once said that "the production from the masses can compete with the mass production of a few companies". He said that Dr Kurien worked in that direction and made it happen in the form of a successful co-operative called Amul. Dr. Kurien referred to a type of co-operation that would allow farmers to compete and spread their earnings to enhance their quality of life. According to Prof Bhatt, through co-operation, farmers could have control over what they produced, sold, and earned.

He encouraged the workshop to explore how farmers could improve market exposure and how organisations could support farmers with maximum returns. Prof. Bhatt noted that today, while a private dairy cannot return more than one-third of the income it generates, our dairy co-operative farmers receive 85% of the money generated in the market. This is primarily because dairy co-operatives work very well in some states. He explained that it was time to think about how we could achieve similar outcomes in other areas, states and regions. He said this workshop in Odisha

would be a strong start for farmers in many other states to take the lead and demonstrate by example.

Prof. Hitesh Bhatt outlined how IRMA could contribute to this effort. He said that IRMA's contribution could come in the form of many more workshops, similar to the present one. He also said that IRMA's students could visit Odisha for their Village Fieldwork Segment (VFS) to understand ground-level issues. IRMA students could be offered internships, be stationed at the village-level, taluka/block - level or district-level headquarters, and work with the government officials. IRMA may also undertake various training programmes for officials from different departments locally in Odisha or at the IRMA campus. Prof. Bhatt also proposed future partnerships on VKCoE's research work, finding avenues and proposing possible approaches to accomplish our target each year. Prof. Bhatt recommended that the government also consider accepting IRMA students by placements in certain departments where they could make a difference.

He concluded his talk with a small story about *Ubuntu*, a word in an African language which means cooperation. A type of open-source software is also named *Ubuntu*. He narrated that an anthropologist went to study in Africa. He gathered some children, challenging them to run a 100-metre sprint. Whoever came first would get the fruit basket. All the children ran holding hands, ending the race together. Emerging jointly as winners, the anthropologist had no choice but to award the entire fruit basket to the entire bunch. He did wonder, though, why they had run in unison instead of separately to win the fruit basket. One kid responded, "I exist because we live together. I have no life without anyone. When my home has no milk, it comes from another's house. When the other has no food, it comes from my home. When we work together, we can survive, we can thrive." Prof. Hitesh Bhatt suggested that if the workshop found an Ubuntu way

of doing things, it would be a perfect job done. **Shri Balasubramanian Iyer**, Regional Director, International Co-operative Alliance – Asia Pacific, expressed his gratitude to the organisers for allowing the International Co-operative Alliance (ICA) to take part. He explained that the ICA was a global body representing co-operatives worldwide. ICA's 311 national federations across 109 countries represented more than one billion members. He said one of every six individuals worldwide was a co-operative member. ICA works to unite, promote and develop cooperatives worldwide. For the Asia-Pacific region (ICA-AP), which is one of the four regional offices, the office was in Delhi. He said that ICA-AP has 107 members from 33 countries. This workshop was important for ICA-AP in two ways – 1) it was an opportunity to share work of other co-operatives in the region in the context of agriculture while improving farmers' welfare; 2) it was also an opportunity to learn what was happening in the state of Odisha, to be extrapolated to members elsewhere. The co-operative movement has had a long tradition in Odisha. In 1898, before the first Co-operative Societies Act was passed in India, Shri Madhusudan Das had founded the Cuttack Co-operative Society. Back then, the idea of doubling farmers' income or looking at farmers' welfare was very obvious. Shri Iyer said that Shri Madhusudan Das always offered the producers a remunerative price for their produce; at the same time, he never overlooked consumer concerns. Shri Madhusudan adopted the policy of connecting goods with store promotion and sales activities. As far back as 1898, Odisha was already debating how to increase farmers' incomes, how to connect them with consumers, and add value to their activities. Odisha has taken the lead in this aspect. Emphasising that even the Agriculture Policy of Odisha 2013 assigned centrality to co-operatives, Shri Iyer added that the Primary Agricultural Cooperative Societies (PACS) needed to play an instrumental role. He also noted that Odisha was reviewing its co-operative agricultural

strategy. In this process, he requested that PACS also be considered as Farmer Producer Organisations (FPOs), as supporting FPOs was one of the mandates of the Government of India.

Shri Balu Iyer emphasised that in reference to farmers, the focus should not be on the *kisan bhai*^{iv}, but on the entire family. He said this is where the role of women and their interests came in. He said that the plight of female farmers was abysmal. The farmer is always referred to as male. He stressed that discrimination against women was a consequence of this ingrained patriarchy, particularly in the context of land inheritance and ownership. More so in agriculture, where women in India did 80% of all economically active work. He urged workshop participants to look at how we could include women in co-operatives in terms of membership and land ownership while discussing doubling farmers' incomes. Without land ownership, cooperative membership remains a challenge. How do we look at increasing their membership? How do we look at the role of women in leadership? How do we look at allied activities contributing to household incomes? With these questions, Shri Iyer reiterated that the role of women should not be ignored.

In his speech, **Shri Akshyakumar Mohanty, President, Odisha State Co-operative Bank (OSCB)**, said it was a privilege to be part of the workshop and looked forward to participants' insights. He said that while Doubling Farmers' Income by 2022 was the national agenda under the Honourable Chief Minister Shri Naveen Patnaik's capable leadership, Odisha's farmers' incomes had increased more than seven times over the past 13 years. Shri Mohanty went on to explain the Odisha government's initiatives to raise farmers' incomes. He spoke of the implementation of the KALIA scheme offering concessional and interest-free loans to farmers during the *Kharif*^v and *Rabi*^{vi} seasons. He referred to the three-tier co-operative credit system under which the government issued farmers with short-term agricultural loans. He concluded by saying that the Odisha State

Co-operative Bank (OSCB) looked forward to useful feedback from the workshop to improve the state's short-term co-operative credit system, to change the farmers' lives. He wished the workshop success.



Mr Balasubramanian Iyer, Regional Director,
International Co-operative Alliance – Asia Pacific



Shri Akshyakumar Mohanty, President, Odisha State
Co-operative Bank (OSCB)

Shri Ranendra Pratap Swain, Honourable Minister of Co-operation, Government of Odisha,

in his address, said that the Co-operative Department Secretary had clarified the focus of the department. Shri Swain welcomed the agricultural minister Dr. Arun Sahoo to the workshop. Shri Swain added that, originally, the workshop had been conceptualised by the erstwhile RCS and erstwhile secretary of the co-operative department. He said that while discussing over the table, he made it very clear to the officials that Doubling Farmers' income without the participation of the Minister of Agriculture would not be feasible in the state. He said both ministers should work in unison to see farmers' income doubling in the state. He announced that Odisha's honourable Chief Minister had been continuously awarded the *Krishi Karman Puraskar*^{vii} by the central government over the last 4-5 years. Shri Swain said that this show how strongly the Odisha Government was focussed on its objective. He reminded the participants that the 150th year of Mahatma Gandhi was celebrated in 2019. He narrated that Gandhiji, in a prayer meeting, the night before he fell to his assassin's bullets, spoke of what turned out to be his last wish, "India should have a farmer as

Prime Minister.” Shri Swain mentioned that Gandhiji had his way, India’s Governor-General and Prime Minister would be peasants. He added that, unfortunately, none of our ministers were peasants. He went on to explain that while Sardar Vallabhbhai Patel was a peasant by birth and had some knowledge of agriculture, he was a barrister by profession. He said that Jawaharlal Nehru was a scholar and a great writer, but what did he know about farming? At the dawn of India’s Independence, more than 80% of our population belonged to the peasantry. Under a real democracy, the peasants of our country would have an important role to play. They need not become barristers. They should know how to support farmers. Shri Swain said that this was what the Mahatma, whom we remember in his 150th year, urged of us. He shared the expectation that the wishes of the Mahatma will be fulfilled in the future. He said that Gandhiji’s reflections, in the months leading up to his murder, were concerned specifically with this scenario.

Shri Swain said that it seemed coincidental that the Mahatma was speaking at a time when drought, food shortages and rural poverty were sweeping across the newly independent India. Shri Swain clarified that today, as India’s farm distress has reached alarming rates with around 12,000 farmers committing suicide every year, Gandhiji’s words resonate even more. He emphasised that we must address Doubling Farmers’ Income, keeping that scenario in mind. Farm distress in the newly independent India of the 1940s-50s and that of an emerging economy with a GDP of over Rs.129.85 lakh crores in 2017-18, growing at 7% annually, revealed no significant difference. Shri Swain identified some of the challenges facing agriculture today - resource scarcity in villages, uncertainties in rainfed farming, price volatility for agricultural produce, and intermediaries’ on farmers today. Shri Swain shared that the first five-year plan had centred on agriculture; however, the subsequent policy focus shifted to industrialisation with heavy capital intensive projects. Gandhiji’s wish for a farmer Prime Minister and the present scenario is reminiscent of the opening

sentences of Charles Dickens' Tale of Two Cities, "It is the age of hope, and it is the age of despair."

Shri Swain went on to outline the work of his Ministry. He said the market linkages of farmers in Odisha needed further institutionalisation. He added that agriculture extension services and agriculture market were the two important requirements for doubling farmers' incomes. He mentioned that the success of PACS in the procurement of paddy, pulses, oilseeds and millets shows the vital role played by it in marketing agricultural output in Odisha. He stressed the need to further exploit this potential, to integrate thousands of small and marginal farmers into the supply chain of agriculture along with women SHGs.

Shri Swain went on to detail Odisha's agricultural scenario. He said 87% of Odisha's population lived in its villages, compared to the national average of 74%. In Odisha, he said, 73.10% relied on agriculture, the average landholding was 0.2 hectares per person, while the national average was 0.16 hectares per person. Odisha had a 9.3 lakh hectare wasteland. Shri Swain said that in order to double the farmers' incomes, the wasteland needed to be reclaimed. He stated that 38% of Odisha's population comprised Adivasis and Dalits. Shri Swain urged keeping this in mind while deliberating on Doubling Farmers' Income. This means that about 38% of the population of the state depended on forest produce to a greater extent. One-and-half crore people persons depended on the forest on a daily basis. Odisha's forest cover was 36% which was above the national average. Only the north-eastern states and Kashmir had a higher forest cover than Odisha. Shri Swain stressed that while it is important to see how co-operatives worked in the hinterlands, the jungle should also find a place in the discourse.

He said that groundwater also had to be harnessed. He mentioned that while Punjab harnessed 85% of its groundwater, Odisha harnesses only eight per cent. He indicated that Odisha has 2330 sq. m.

of groundwater. Shri Swain advised that, if these outlets are not completely harnessed, doubling farmers' income would be very difficult in Odisha.

Shri Swain also noted that the national market today is at its lowest. He stated that we had opened our markets to the world in laissez-faire mode- "Come one, come all", which is a free market economic scenario. He said that globalisation is the main plank driving the entire economy. He stressed that the country is facing widespread unemployment with thousands getting laid off every day. It is important to remember that the market is down with insufficient jobs. He added that Odisha should be dealt with from a different perspective because Adivasis and Dalits constitute nearly 40% of the state's population. Their employment and income doubling should be the prime factors in sustaining our GDP growth. Shri Swain expressed gratitude to the organisers and dignitaries present. He said that his department looked forward to the valued suggestions emerging from the workshop.

The Chief Guest Dr. Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Higher Education, addressed the gathering. He acknowledged the presence of Honourable Minister of Co-operation, Government of Odisha, Shri Ranendra Pratap Swain and appreciated his seventh consecutive win in the election since 1990. Dr. Sahoo added that under Shri Swain's leadership, the Co-operation Department shall explore the best possible outcomes for the future. He first thanked the Department of Co-operation, Government of Odisha, for conducting the workshop on Doubling Farmers' Income. He said in the current scenario, DFI was one of the most discussed issues across different parts of India as well as Odisha. He mentioned that the Honourable Chief Minister Shri Naveen Pattnaik and the Department of Agriculture, Government of Odisha planned to increase farmer incomes multiple times in Odisha. He added that Odisha had already achieved this feat. He

stated that an average farmer in Odisha earned about Rs. 1,062 per month in 2002. In 13 years, the average earning of a farmer had risen seven times to Rs.7,731 per month and Rs. 92,000 per annum, i.e., an average growth rate of 16.5% per annum in 2015-16. He said that this was more than the national average compared to other states. Indicating a significant insight from Census 2011 he said that 2,000 farmers give up farming every day. He referred to what the Honourable Minister of Cooperation, Shri Ranendra Pratap Swain had stated: Odisha had around 61 lakh hectares of agricultural land. He referred to the non-cultivation of approximately 8 lakh hectares of agricultural land. Dr. Sahoo also shared that paddy was cultivated on around 36 lakh hectares of agricultural land in Odisha. He added that around 38% of land in Odisha was covered by forests that could raise farmers' incomes. Besides, many people depended on forest produce. He also shared that about 23 % of Odisha's population belonged to tribes. The SC and ST population was more than 40% of the total state population. He urged the exploration of these unique aspects. He added that his department had thought over these unique aspects and was going to focus on them to a greater extent. He reiterated that the per capita income of farmers had grown by 16.5% 13 years annually, i.e. seven-fold.

He suggested that the rise in per capita income had also been caused by women's participation. He shared that this was possible due to the KALIA scheme that had helped increase farmers' incomes in Odisha. He added that the Department of Co-operation and Ministry of Agriculture, Government of Odisha, were helping the farmer through the KALIA scheme.

Dr. Sahoo shared his experience in the NITI Aayog in Mumbai as part of its Farmer Empowerment Committee. He stated that while nationalised commercial banks were funding farmers to a greater extent in other states, Odisha wasn't. In Odisha, the co-operative banks were extending more funds to farmers compared to nationalised commercial banks, bringing in 80% of their total financing to

farmers. Dr. Sahoo stated that nationalised banks did not provide adequate credit to Odisha's farmers. He added that this issue had to be addressed to double farmers' incomes in the state. He commended the co-operative banks for supporting the farmers in Odisha. He noted that nationalised commercial banks were unable to provide farmers with requisite loans. Stressing that this was the weakest point that needed the House's attention, he said measures were necessary to increase the participation of nationalised commercial banks. Pointing out that Odisha's co-operative banks had inadequate deposits, he requested the Honourable Minister of Co-operation to kindly address this issue. He requested that the Agriculture department and the Co-operation department jointly review the following issue: while co-operative banks provided 80% of the total financing, why were nationalised and commercial banks failing? He urged the House to take this up as a case study worth exploring.

Dr. Sahoo reminisced that in 1930, the world had seen the Great Depression and recession. The Union Finance minister had said in a press conference that India was facing a recession. He emphasised that this recession had an impact on the farmers. He stated that farmers sold in wholesale but bought in retail. He added that whenever a country, society, or the world faced recession, the first and foremost impact was taken by the farmers who were usually the most affected. Dr. Sahoo urged the gathering to study how to double, triple, or multiply the incomes of farmers. He also said it was important to study how to increase their purchasing capacity, because unless money came to a farmer, how could he purchase better things for his life and livelihood?

Shri Sahoo's third point touched upon the KALIA scheme. He said that implementing KALIA scheme in the state of Odisha was one of the boldest decisions of the Honourable Chief Minister Naveen Patnaik. He added that this assistance had not only helped small and marginal farmers but also more than 25 lakh landless agricultural households. Loans have already been disbursed to

more than 50 lakh households, some of them in their first instalment and some in their second. Shri Sahoo said about 36 lakh small and marginal farmers and about 14 lakh landless agriculture labourers, who had been excluded from the *PM Kisan Yojana*, had been included by the Odisha government. He then explained how the Co-operative Department could support these efforts under the *KALIA scheme*. He pointed out that the Co-operation Department disbursed credit to farmers during the *Kharif* and *Rabi*^{vi} seasons. Many farmers were unable to pay the insurance share. Last year, only 2 lakh farmers paid their insurance share, which had risen to Rs. 8 lakhs. This means that they were able to make their insurance payments on getting assistance from KALIA. This was the first impact of the KALIA scheme.

Shri Sahoo noted that much needs to be discussed still. He requested the Honourable Minister of Co-operation to amend the Co-operative Act as it was outdated and obsolete. He urged Minister Swain to propose the changes at the December assembly session because the co-operative processes and structures needed to be streamlined urgently.

Shri Sahoo concluded by urging the audience to apply the 5T mantra, which had become popular with state government officials and required ground-level percolation. He listed 4 of the Ts - Teamwork, Technology, Transparency and Time. He said that the 4Ts would lead to the fifth T - Transformation. Lastly, Shri Sahoo said that these 5 Ts, as advised by the Honourable Chief Minister, were important for the state to transform into a developed state.



Shri Ranendra Pratap Swain, Honorable Minister of Co-operation, Government of Odisha



Shri Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Higher Education, Government of Odisha

Shri Debendra Kumar Jena, IAS, MD, Odisha State Co-operative Bank (OSCB) gave a vote of thanks. Shri Debendra said that it was a great privilege on the part of OSCB to co-host this workshop on “Doubling Farmers’ Income: Exploring Pathways for Co-operatives in Odisha” organised by the Co-operation Department in collaboration with the VKCoE - IRMA. He said that the workshop was a platform where policy makers, policy planners, various programme-implementing agencies and academicians from two leading national institutions – IRMA and VAMNICOM – would explore the means of doubling farmers’ incomes. He extended heartfelt gratitude to the Honourable Minister, Food Supplies, Consumer Welfare and Co-operation, for gracing the occasion and sharing his valuable thoughts with the participants of the workshop. He also extended gratitude to the Honourable Minister, Agriculture and Farmers’ Empowerment, Fisheries and Animal Resources Development and Higher Education, for his gracious presence at the workshop as Chief Guest and for sharing his valuable thoughts with the gathering. Shri Debendra also conveyed gratitude to the Secretary, Department of Co-operation, for having spared his valuable time to share his thoughts on the theme of the workshop. He also expressed gratitude to the President, OSCB, who shared his expectations of the workshop to strengthen the three-tier co-operative structure. He conveyed heartfelt thanks to Director IRMA for his gracious presence,

especially for mentoring the workshop with his senior colleague VKCoE Chair Professor HK Misra. He also thanked Regional Director ICA-AP for his gracious presence at the workshop, as well as for his encouraging words. Shri Debendra also expressed his gratitude to the Registrar, Co-operative Societies and his colleagues and to the officers and staff of OSCB, who had taken the pains to make this workshop a reality. Last but not least, he extended his gratitude to all the distinguished participants of the workshop for their valuable presence.

With this, the inauguration concluded, leading to the panel discussions.

3. PANEL DISCUSSIONS

The introductory addresses by esteemed delegates on the dais were followed by panel discussions led by subject matter experts with an aim to introduce diverse perspectives on the co-operative system and the role it could play in doubling farmers' income. The panel discussions took place as given below:

Sl. No.	Panel Topic	Panel Expert
1	Introduction	Prof H K Misra, Chair, VKCoE – IRMA and Panel Moderator
2	Overview of DFI with specific relation to Odisha	Prof S R Asokan, IRMA
3	Introduction to Role of IRMA in Anand Pattern to foster Co-operative movement and Farmer income	Prof Hitesh V Bhatt, Director, IRMA
4	Overview of Odisha's Co-operative ecosystem – Farmer Centrality	Dr Patanjali Tripathy, Department of Co-operation, Govt. of Odisha
5	Overview on Agriculture and Dairying in Odisha- Farmer income	Smt Sarojini Mishra, Chairperson, OMFED
6	Co-operative Banking ecosystem in Odisha and DFI- Opportunities and challenges	Smt Gayatri Patnaik, Deputy Director (Statistics), Registrar of Cooperative Societies, Government of Odisha
7	Overview on Regional Co-operation for DFI in the context of policies, market and networks	Shri Balu Iyer, Regional Director, ICA-AP
8	Modelling successful farmer engagement/dairy entrepreneurship through Market Orientation in Gujarat – Role and Experience of GCMMF	Shri Manoranjan Pani, Senior GM – Sales and Marketing, GCMMF
9	Role of competence enhancement through research, training and capacity building in the co-operative sector for enabling DFI	Dr KK Tripathy, IES, Director, VAMNICOM
10	DFI: Policy Perspective	Sri Lav Bharadwaj, NITI Aayog
11	Audience interaction and Concluding Remarks	Prof Harekrishna Misra, Ms Shilpa Gole

3.1. Introduction to Panel Discussion

Moderator Prof. Harekrishna Misra, Chair, Verghese Kurien Centre of Excellence -
Institute of Rural Management Anand (IRMA)

Prof. Harekrishna Misra welcomed all the participants to the panel discussion. He explained that the panel discussion was very important to set the tone for the theme-level discussions.

He thanked the honourable ministers for sharing Odisha's efforts in Doubling Farmers' Income and acknowledged that the path ahead faces several challenges. He explained that the workshop title addressed two fundamental issues – 1) the institutional mechanism of co-operation, and 2) linking co-operation to Doubling Farmers' Income. He urged the participants to **refer to the baseline given by the ministers, to discuss and deliberate over possible processes and pathways** that could be pursued.

Prof. Harekrishna Misra identified some of the **challenges facing co-operatives and the agricultural sector**. He referred to NITI Aayog's estimate that farm household income in Odisha state is the country's second-lowest. He advocated a detailed analysis of the net worth of farming households to augment farmers' incomes. He stressed that some challenges should be addressed during the proceedings of the panel including a) are the farm household's liabilities beyond its assets? b) do farmers' incomes meet policymakers' expectations? and c) should non-farm livelihoods be explored as an additional income stream for farm households?

He also said **that co-operation** is not limited to a single sector, but **is multi-sectoral**. Therefore, cooperatives need to **bring about income centrality, bearing in mind multiple income portfolios** for their farmer members. Both farm and non-farm activities must be explored to augment the farmers' income. Prof. Misra suggested that **farm-based livelihoods could also**

involve participation in the agricultural supply chain, which could be collective-oriented and women-centric. Prof. Misra noted that farmers no longer viewed farming as a lucrative business and were moving away from agriculture.

He said that alongside a decline in agricultural participation Census 2011 shows and an even more noticeable decline in female worker participation. He said that the **decline in female workforce participation in agriculture** was especially worrying, as women were central to the household philosophy. Interventions to improve women's participation in agriculture must be thought out, especially those directly related to income.

While sharing that the decline in agricultural income and workforce participation was a challenge, Prof Misra added that **agricultural landholding was also decreasing** and would continue to exhibit a decreasing trend. Referring to what had been said by the ministers, he said that it was important to consider harnessing the commons – forests, rivers and even the sea – to augment farmers' incomes. Managing the commons with co-operation should be discussed and addressed through the workshop.

Prof. Misra also emphasised the **need for convergence in Odisha's co-operative ecosystem.** Referring to the co-operative infrastructure, he urged the workshop to focus on the convergence, capacity utilisation, and productivity of agricultural and co-operative infrastructure. He also requested the house to discuss policy convergence in augmenting the co-operative ecosystem.

In terms of market orientation, Prof Misra emphasised that **farmers' access to markets** should be assessed on various indicators – the agricultural produce sold, market proximity, warehousing availability, and the extent of the marketable surplus sold. He pointed out that co-operatives played an instrumental role in helping farmers market their produce by pooling resources, buying bulk

inputs, selling bulk outputs, and increasing the negotiating power of farmers. Addressing these challenges will boost the role of co-operatives in doubling farmers' incomes.

He said that the co-operative ecosystem also needed to be understood from the perspectives of management, governance and their functioning, ownership, accountability, convergence, member centrality, member affinity, market access, infrastructure services, value chain networks, and production. A co-operative should be assessed on appropriate criteria to determine whether they could be active, dead, or defunct. He explained that to determine the sustainability of PACS, these parameters must be calculated. He urged GCMMF to shed light on the management and sustainability of co-operatives from the standpoint of hedging the risk of market fluctuations and supply determinants.

He also said participants needed to address the co-operative environment scenarios in Odisha from the Sustainable Development Goals' (SDGs') perspective. He stated that **Odisha's cooperatives must be viewed from the seven dimensions of Doubling Farmers' Income** (Chand 2017) and expectations should be set accordingly.

In his closing remarks, Prof Harekrishna Misra referred to the inaugural address by Dr. Arun Sahoo, particularly the point regarding **revisiting the Co-operative Act**. Prof Misra requested Smt Sarojini Mishra, Chairperson, OMFED, to throw light on the impediments in Odisha's co-operative role. He urged the panel speakers to deliberate and provide critical insights into the challenges facing co-operatives in Odisha to make room for meaningful theme-level discussions.

3.2. Panel Theme 1: Overview of DFI with specific relation to Odisha

Panel Expert Prof S R Asokan, Professor, Agribusiness Area Group, Institute of Rural Management Anand (IRMA)

Prof. S R Asokan presented an overview of the Report on Doubling Farmers' Income, also known as the Dalwai Committee report. He saw the report as very comprehensive but voluminous, comprising 14 volumes covering a range of topics including increasing productivity, input management, farm-linked secondary agriculture, risk management, agricultural extension, logistics, marketing, etc.

The committee report observed **an inverse relationship between agricultural income and rural poverty**. Increasing farm income reduced poverty and vice versa. Increasing agricultural income was, therefore, necessary to counter poverty, particularly in rural areas.

The committee accepted the definition of the "farmer" as an agricultural household term, as set out by the Situation Assessment Survey of NSSO in its 70th round. According to the definition, *the agricultural household is the one receiving some value of produce from agricultural activities such as crop cultivation (both field and horticulture), plantation, animal husbandry, poultry, fishery, piggery, beekeeping, vermiculture and sericulture, etc.* Rural artisans, coastal fishers are not considered agricultural households, and hence outside the ambit of the report.

Agricultural households may receive incomes from a) crop cultivation, b) livestock rearing c) non-farm business, and d) wages and salaries. A non-farm business could receive income from both farm-related and non-farm-related activities. Similarly, wages and salaries may come from the farm as well as non-farm related work. The total income of the agricultural households was derived by aggregating the income received from these activities. Since growth in non-farm income was

linked to interventions outside agriculture, the report focussed on key sources of income for the agricultural family. The main source for the committee report relied on for calculating the agricultural income was the survey of NSSO 70th round and some inputs from the Indian Household Development Survey.

The committee's **basic goal was to increase net income**. Hence, unlike the previous exercises, that had primarily focussed on increasing agricultural production, the committee also concentrated on reducing cultivation costs through better resource use and increased price realisation by improving marketing efficiency.

The committee identified **seven major sources of growth to increase income**. They were:

- Improvement in crop productivity
- Improvement in livestock productivity
- Resource use efficiency or saving cost of production
- Increase in cropping intensity
- Diversification towards higher value crops
- Improvement in real prices received by the farmer
- Shift from farm to non-farm occupations

As shown in Table 2, the income of agricultural households for all India in 2015-16 was estimated as Rs. 96,703 at current prices of which Rs. 58,246 was from agriculture and Rs.38,457 from non-farm activities. This income had to go up to Rs. 242,988 by 2022-23 at current prices and Rs. 172,694 at constant prices.

Table 2 Targeted Farmer's Income in India and the state of Odisha

	Base Year 2015-16			Target year 2022-23 @ 2015-16 Prices			Target Year 2022-23 @ Current Prices		
	Farm	Non-Farm	Total	Farm	Non-Farm	Total	Farm	Non-Farm	Total
Odisha	34,463	28,222	63,285	78,192	40,556	118,747	110,023	57,066	157,018
India	58,246	38,457	96,703	116,165	52,529	172,694	163,456	79,543	242,998

Source: Report of the Committee on Doubling Farmers' Income Vol. 2

In Odisha, **agricultural household income** was Rs. 63,285 in 2015-16, of which Rs. 34,463 was farm income, and Rs. 28,222 was non-farm income. The income had to rise to Rs 157,018 by 2022-23 at current prices and Rs.118,747 from the constant price of which the contribution from agriculture and non-agriculture should be Rs. 78,192 and Rs 40,556 respectively.

The Committee on DFI noted that the income of the agriculturally less-developed states and union territories needed to be accelerated to more than double their incomes. The mean income of Odisha was Rs. 63,285 and that of India was Rs. 96,703 and the difference Rs. 33,412. As a result, the agricultural household income in Odisha had to grow at a rate of 11.9 per cent to reduce the gap.

Assuming the parameters impacting the growth of the farm household income grew at the same pace between 2003-04 and 2013-14 for the next seven years that is till 2022-23 in Odisha, income would increase by 85% (Table 3 and 4 below). If the rate of growth were to accelerate, the growth would be 126.9%, increasing the gap between all India mean farmers' income and Odisha farmers.

Table 3: Estimated Value of Parameters Affecting Income (Percentage Growth) in Odisha

Over 7 years up to 2022-23	Usual Growth	Accelerated Growth
Parameters Affecting Income	Odisha	Odisha
Crop Productivity	5.65	6.78
Livestock Productivity	6.17	7.40
Resource Use Efficiency	1.56	2.26
Crop Intensity	0.70	0.88

Crop Diversification	5.5	6.88
Better Price Realisation	8.86	13.0
Shift in Non-Farm Occupation	0.35	2.0
Assuming the same rate of growth between 2003-04 to 2013-14 and accelerated growth		

Source: *Report of the Committee on Doubling Farmers' Income Vol. 2*

It is evident that, with accelerated growth, the contribution of each factor increased considerably. The contribution to income from crop productivity increased from 33.6% to 47.7% per cent and from crop diversification to 21.1% from 13.6%. Improving the marketing output of agricultural produce added 3% to income as its share rose from 6.3% to 9.3%.

Table 4: Contributions (percentage) of Seven Factors to Income Growth by 2022-23 in India and the state of Odisha

	Usual Growth		Accelerated Growth	
	India	Odisha	India	Odisha
Crop Productivity	17.6	33.6	24.4	41.7
Livestock Productivity	12.5	14.8	18.1	18.4
Resource Use Efficiency	13.3	11.4	17.3	16.9
Crop Intensity	4.2	3.6	5.5	4.5
Crop Diversification	4.1	13.6	9.5	21.1
Better Price Realisation	7.1	6.3	9.6	9.3
Shift in Non-Farm Occupation	7.7	2.5	15.0	17.9
	66.5	85.2	99.44	126.9

Source: *Report of the Committee on Doubling Farmers' Income Vol 2*

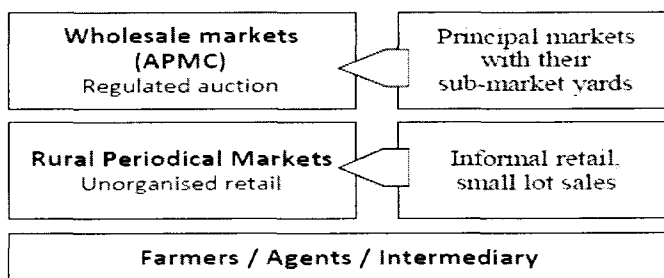
Co-operatives and Agricultural Produce Marketing

Co-operatives could play a significant role in six of seven factors impacting the farm household income. In several states, including Odisha, there are water co-operatives/water users' associations that have improved resource efficiency. Co-operatives have also been supplying fertilisers. If all co-operatives sold seeds and fertilisers, farmers would get quality inputs at a fair

cost, reducing overall production costs. The government has promoted custom farm machinery employment centres. Co-operatives could open such centres, thus helping farmers conduct timely farm operations, contributing to increased productivity. However, we were confined here to agricultural marketing, which can be considered a low hanging fruit.

The existing market structure for agricultural produce consists of a regulated *mandi*^{viii}, their sub-yard and the rural periodical market with several intermediaries, as depicted in the following figure.

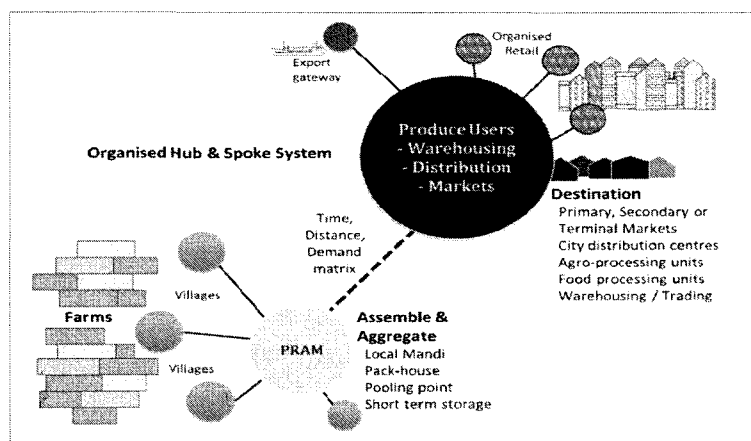
Figure 1 Existing market structure - with an enforced intermediary exchange at every stage



Source: *Report of the Committee on Doubling Farmers' Income Volume IV*

The catchment area, that is the radius served by a regulated *mandi*^{viii} in Odisha, is 1083 sq km compared to 459 sq km for India. The National Commission on Agriculture (1976) had recommended a 5 km radius to be served by a *mandi*^{viii}. The DFI Committee, therefore, recommended that the rural periodical market be upgraded and become a hub for aggregation prior to the transfer of products to secondary and terminal markets, as shown in Figure 2 below. This will reduce the area served by a *mandi*^{viii} to a reasonable extent. Odisha has 45 regulated *mandis*^{viii} with 269 sub yards and 1548 periodical markets alongside. Developing the latter would reduce the area served by a *mandi*^{viii}, while reducing some intermediaries in the chain and increasing farmers' incomes.

Figure 2: PRAM in the hub and spoke logistics network



Source: Report of the Committee on Doubling Farmers' Income Vol IV

The Primary Agricultural Co-operative Society (PACs) in Odisha is uniquely placed. They are already mandated to procure paddy from the farmers. The employees have considerable skill in handling this activity. With minimal investment in improving infrastructure, procurement could be extended to other fields and horticulture crops.

According to the report *Investing in agribusiness and food processing sector: Opportunities abound* (2013), several national and multinational agribusiness companies such as Pepsi, Sakthi sugars, Cargill, Nissin, Suguna, Parle Agro and Venky's have been operating in Odisha. Regional players include Ruchi, the Pasupati Group, Eastern Foods, Falcon, Surya Foods, and Bharat Masala. Companies like ITC, Reliance and Anmol biscuits were poised to enter Odisha. Co-operatives could explore the possibility of becoming aggregators of raw materials for these companies, to begin with. Simple aggregation can create value for farmers. Once the co-operatives gain the expertise and confidence of the farmers, they could go into value-added processing and marketing, eventually aiming to have a brand of their own.

Credit

The targetted growth rate of farm income warrants capital investment both by private and public. In India, Incremental Capital Output ratios (ICOR) have been worked out to forecast an increase in investment rate required to meet specific growth targets within a sector.

The private investment for agricultural and allied activities required in Odisha in the seven years, from 2014-15 to 2022-23, is shown in Table 5 below.

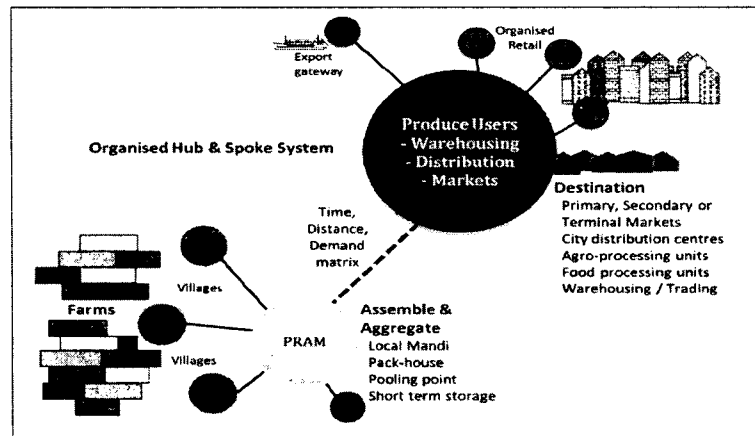
Table 5 Annual Private Investment Required over seven years (Rs 00 crores)

Year	Odisha	India
2016-17	6.7	658.8
2017-18	8.4	771.5
2018-19	10.5	868.0
2019-20	13.2	976.4
2020-21	16.6	1098.4
2021-22	20.8	1235.7
2022-23	26.2	1390.0

Source: *Report of the Committee on Doubling Farmers' Income Vol 2*

In Odisha, 66.1% of borrowed funds have been utilised for creating fixed assets for farm activities, of which 70.9% funds came from institutional sources. Odisha has fared much better compared to the rest of India, which is at 63.4%. Co-operatives in Odisha have been doing well in extending short-term crop loans. They might be able to explore, within the legal framework, the extension of medium-and long-term credit to capital formation for farm-based activities.

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3.3. Panel Theme 2: Introduction to Role of IRMA in Anand Pattern to foster Co-operative movement and Farmer income

Panel Expert Prof. Hitesh V Bhatt, Operations Area Group and Director, Institute of Rural Management Anand (IRMA)

Prof. Hitesh Bhatt referred to when the Honourable Minister of Agriculture, Dr. Arun Kumar Sahoo had said that farmers bought on a retail basis but sold on a wholesale basis. Prof. Bhatt said that this was a serious problem that needed to be addressed. He added that, as mentioned by Dr. Sahoo, recession was looming large, which would further reduce the purchasing ability of farmers. He said that it was important to not just look at farmers' income, but also the **farmers' expenditure** on items used to generate income.

Prof Bhatt said OMFED could benefit from GCMMF's best practices. GCMMF gave 80-85% of its revenue back to the farmers of Gujarat. He said that OMFED could learn how the district milk unions under GCMMF worked more efficiently, with better technology, delivered better products. He also noted that many farmer members in Gujarat continued to add more milch animals and increase profits. He said that farmers would only be interested in engaging with OMFED if they were remunerative. He suggested that **OMFED build institutional support** for the farmers through district co-operative unions and village co-operative societies.

Prof Hitesh Bhatt cited **Meghalaya's transformation regarding its farmer outreach and extension services**. Meghalaya received around Rs.5500 crores from the Government of India, which was distributed to people via various schemes. Three years ago, while working with the departments of agriculture and animal husbandry of Meghalaya, Prof. Hitesh Bhatt had noted that the agriculture extension services offered to nearly 6000 villages were in complete apathy. There was hardly any connection between the agriculture officers and farmers. The agriculture officers

believed their primary job was to distribute schemes to the farmers. They would stay within their districts or block-level offices expecting the farmers to meet them. The intervention transformed their approach six months later. Agriculture officers started visiting farmers in their villages and fields. They implemented the System of Rice Intensification (SRI) with farmers reducing their cost of production and improving yields and rice quality. Prof. Hitesh Bhatt urged that **agriculture officers be motivated to work at the grassroots' level** and held accountable, to enable transformational impact for farmers.

He also recounted how **the collective power of farmers** in Meghalaya **helped them realise better prices** for their produce. In one of Meghalaya's blocks, Prof. Bhatt witnessed farmers selling their potatoes individually on the market. There was stiff competition among farmers – whoever entered their potato produce into the market would get the highest price, and subsequent production would realise lower prices. *Farmers were also forced to harvest their potato produce before it matured, only to enter the market as early as possible.* However, the farmers found a way of tackling this issue. They identified a person they all trusted, harvested their potato produce simultaneously, and sent it to the market through the former who sold the entire produce in the market. The representative would distribute profits to the farmers proportional to the quantity of potatoes produced and retain a certain sum as his service fee. Through this method, the farmers were earning higher and equitable returns on their potato produce. Prof Hitesh Bhatt said that these farmers in Meghalaya were essentially sowing the seeds of co-operation.

Prof. Bhatt also shared his experience with Chhattisgarh's pig-breeding farmers. A trader from Raipur would buy the pigs from the farmers at differential rates and sell them there at a fixed price. Farmers negotiated with the trader through their Self-Help Group (SHG). They informed the trader that they would sell their pigs on their own in Raipur at fixed rates at weight-based cost. Getting

worried, the trader said that he would give equitable prices to all households for their pigs. This **power of negotiation** was one of the advantages of collectivisation, paving the way for an organised way of working.

He also explained how Meghalaya had merged MGNREGA with its **Livestock Mission** for the benefit of their landless, livestock-rearing farmers. Farmers wishing to build barns for their cows were able to take advantage of the MNREGA money and use funds for purchasing the raw building materials separately. Similarly, MGNREGA helped farmers establish piggery enterprises. It was found in one year that the animals were doing well, and the entire economy was shifting at the village-level, positively impacting Meghalaya's landless farmers. He added that if the agriculture officers **began to think innovatively**, they could do much more than all farmers could do for themselves collectively. From his Meghalaya experience, Prof. Hitesh Bhatt also stressed the **importance of training block development officers (BDOs)**. He said that there were 57 government schemes that the Government of Meghalaya could take advantage but were returned unutilised due to lack of awareness. The government of Meghalaya resolved this issue by training and educating its BDOs about each scheme. The BDOs were asked which schemes matched their blocks, and the schemes were aggregated accordingly. It was found that sufficient funds were available through the schemes, and substantial profit and change began to occur for the people of Meghalaya.

Prof. Bhatt also stressed the importance of metrics **to measure the impact of interventions on farmers**. He said that agriculture officers needed to be asked certain questions to measure impact - In which year did you join? What was the income of the farmers in your area when you joined? Which year is it now? What is the income of the farmer today? What has been your contribution? If these questions were asked, the officers would become more proactive – they would visit their

villages, find out/understand the farmers' problems and try to work out a solution. Prof. Bhatt stressed the importance of farm visits in identifying what was produced there, and how to sell it to the marketplace. As far as Odisha is concerned, he urged participants to leave air-conditioned halls and communicate with those who actually operated on the ground.

In his final comments, Prof. Bhatt clarified how the Meghalaya farmer had transformed in just five years from a fertiliser-intensive peasant to an almost 100 % organic agricultural producer. This was due to the extensive interaction between agriculture officers and farmers. He reiterated that transformation could occur if the officers and staff working with the departments on-ground were trained, held accountable, and empowered to bring about transformation.

3.4. Panel Theme 3: Overview of Odisha's Cooperative ecosystem - Farmer Centrality

Panel Expert Dr Patanjali Tripathy, DRCS(Credit)I/C, Office of the Registrar, Co-operative Societies, Odisha

Dr. Patanjali stated that Odisha's story was different from that of Meghalaya's and should be viewed through a different lens. He explained the steps taken by the Government of Odisha to transform the situation of farmers.

He said that the state of Odisha had a deficit in paddy production earlier. Today, Odisha was one of the four important states exporting paddy. Last year, **Odisha recorded 57 lakh metric tons of paddy production**. This was the single largest programme of the Government of Odisha, benefitting 12 lakh farmers, with a turnover of INR 12 thousand crores, from November to March during *Kharif*^v and till July during *Rabi*^{vi} procurement.

In 2005-06, the Government of India introduced the doubling of agriculture credit - whatever credit farmers had in the base year 2003-04 would be doubled in a span of four years, i.e. by 2006-07. Odisha complied with these norms. The norms did not help farmers' incomes, taking into account inflation and other factors. A case study found that little progress had been made in Odisha in terms of farmers' incomes.

Today, Odisha is one of the **leading states as far as co-operative credit market share is concerned**. Compared to the national average credit market share of 17% by co-operatives vis-à-vis commercial banks, in Odisha, the co-operatives commanded a credit market share of 66-70 %. The market share was almost 70% of crop loan disbursements through the short-term credit co-operative structure in Odisha. Commercial banks commanded a market share of only 30% in short-term credit for seasonal agricultural operations (ST(SAO)). Dr Tripathy added that the commercial banks had failed to meet the standards prescribed by the RBI and NABARD. It was stipulated that 55% of the deposits mobilised by commercial banks should be invested within the state, of which 18% should be invested in the agriculture sector. During an SLBC meeting that Dr Tripathy had attended when he was RCS it was found that in Odisha, with the exception of the State Bank of India, Allahabad Bank and the Andhra Bank, other commercial banks did not comply with the norm that had been laid down by RBI and NABARD. The Honourable Minister of Finance, Chief Secretary and Development Commissioner came down heavily for this deviation on the part of commercial banks.

Similarly, the **Credit (C)- Deposit (D) ratio of co-operatives** with respect to ST (SAO) was above 123 %. Whereas in case commercial banks, the C-D ratio had slightly increased from 55 % to 67% because of the insistence of the Government of Odisha. The state government had warned the

commercial banks about withdrawing their support if the commercial banks did not invest in the agriculture sector in Odisha.

Dr Patanjali Tripathy explained that the Odisha government had conducted a study last year and in 2011-12 to understand the adoption of the **Kisan Credit Card** among ST communities of Odisha. The government had found that many of the KCC holders from Odisha migrate to other states for work. While being on KCC rolls, they had never availed a KCC loan. To streamline the KCC system, they started an initiative called “**Co-operative at Doorstep**” whereby they approached farmers at their doorsteps and educated them about the effective use of KCC. The Kisan Credit Card had now been converted to the Rupay Kisan Credit Card. Of 55 lakh farmers, 34 lakh farmers had been covered by KCC and, on average, 17 lakh farmers use the KCC annually. Dr Tripathy explained that when the study was conducted, only 30% KCC holders had been effectively using the STSAO short-term credit system, i.e., 17 lakh in *Kharif* season and the same in *Rabi* season. He said that there was a wide scope to harness the opportunity in Odisha.

Dr Tripathy emphasised that increased productivity or increased production did not necessarily lead to a doubling of farmers’ incomes. He explained that farmers’ incomes would be doubled if they received remunerative prices for their agricultural produce. The agriculture commission had fixed the price/MSP of different commodities, yet the cost of production in real sense was not considered while **determining the MSP price**.

In Odisha, farmers grew vegetables alongside paddy. There was rampant **distress sale of vegetables** as the government only engaged in paddy procurement, not vegetables. Dr Patanjali Tripathy concluded by reiterating that if farmers received **remunerative prices for their agricultural produce taking into account the cost of production**, they would increase their incomes, a motivating factor for farmers to remain in agriculture and reverse their situation.

3.5. Panel Theme 4: Overview of Agriculture and Dairying in Odisha - Farmers' income

Panel Expert Smt Sarojini Mishra, Chairperson, The Odisha State Co-operative Milk Producers Federation (OMFED)

Smt. Sarojini Mishra first outlined the status of Primary Agricultural Cooperative Societies (PACS) in Odisha. She said that PACS had around 3000 members of which only 600-700 members were active. She emphasised the high percentage of inactive members and the urgent need to **address co-operative membership**. She said strengthening co-operatives required the renewal of inactive members. It was important to understand from the number of total members, how many were farming, and how many had left.

It was also important to understand how many members supported and actively traded in the co-operative so that more members realised that the co-operative could sell crops and make use of the loans. Smt. Sarojini emphasised that the co-operatives needed to focus on procurement and marketing, as in the case of the Anand Pattern, to improve farmers' income.

She suggested that co-operative members hold a general body meeting annually, which did not happen because farmers were not aware that they were members of the co-operative. Therefore, the farmers did not realise that they could use government loans through the co-operative at subsidised interest rates. She also said that many farmers did not realise that they could sell their grain through the co-operative. Smt. Sarojini said that there was an urgent need to make farmers aware that they were co-operative members and could avail loans and sell their grain through the co-operative. She stressed the **training of all members** of the cooperative **to raise awareness**.

She referred to IRMA Director's, Prof. Hitesh Bhatt's, argument that the Block Development Office (BDO) could offer extension services on agriculture, animal husbandry, fisheries, and

several agricultural and allied sectors. Yet, agriculture officers are unaware of the services they could provide to transform the lives of farmers. She said that there needed to be a **special emphasis and block-level debate on how to double farmers' incomes**. She stressed that agriculture officers need to spend time with farmers and understand/evaluate farming activities- what crop to harvest in which village and what crop to grow. She suggested inviting the Tehsildar and local MLA to the co-operative general body meetings to learn about the co-operative structure and number of farmers. However, they were usually invited for ration distribution.

Smt. Sarojini Mishra highlighted the challenges faced by co-operatives in Odisha's dairy sector and shared her experiences as Chairperson of the state dairy federation OMFED. She explained that while OMFED was responsible for marketing the milk procured from district milk unions, it had not paid the union its commission since 2014. She added that **diesel prices and labour costs were rising**. Since the seventh pay commission, union labour strikes have been protesting for wage hikes. The district unions are unable to tackle these challenges. She also said that OMFED faced challenges in marketing the milk due to **heavy seasonal milk fluctuations**. There is no milk in the lean season and a surplus in the flush season, while demand remains constant. The milk marketing challenge could be addressed by having guaranteed milk buyers for the milk; for instance, milk could be served with midday meals. Setting up UHT plants could also help preserve the milk longer and ensure sales.

Smt. Sarojini highlighted the **entry of private players into the dairy sector** in Odisha. She said that private players increased milk prices arbitrarily, without government control. Additionally, the milk is not subjected to quality tests. She emphasised the need for quality tests for milk procurement and marketing. She said that farmer incomes in Odisha had not increased since 2014. Odisha's farmer income was the lowest, with only West Bengal trailing. She said that the Indian

government needed to set a minimum support price for milk so that everyone got an **equitable price for their milk**.

Smt. Sarojini spoke about **cattle health** in Odisha and highlighted other problems of the dairy sector. She pointed out that while one block had three hospitals for humans, it had only one veterinary hospital, often situated 15-30 km away from the cow. Moreover, she noted that the veterinary department was understaffed with plenty of vacancies. She said Odisha's milk production had been low this year due to rampant cow FMD. Had the FMD vaccinations been administered on time, this would not have happened.

Smt Sarojini spoke about loans for **purchasing cows under the Dairy Entrepreneurship Development Scheme (DEDS) in Odisha**. She said that DEDS loans helped farmers purchase cows at subsidised prices, but the scheme had not had a far-reaching impact. She said that the bigger farmers seemed to profit more than the smaller, poorer, and landless farmers. The members of the dairy cooperatives were small, poor dairy farmers who poured 1-3 litres of milk per day. The DEDS loan could be targeted at benefitting them. The regular supply of milk to society may be considered a guarantee for the banks in order to issue DEDS loans.

She also stressed the **importance of Self-Help Groups (SHGs)** in the co-operative movement. She said every panchayat village had some 100-200 SHGs. Together, if three groups purchased cows, sold milk, and operated a co-operative, they would make good profit.

Smt. Sarojini concluded that milk production by co-operatives would definitely increase farmers' incomes by taking care of the health of cows, securing milk over the year, reducing the costs of production and ensuring marketing.

3.6. Panel Theme 5: An Overview of Co-operative Banking ecosystem in Odisha and DFI

Panel Expert Smt. Gayatri Patnaik, Deputy Director (Statistics), Registrar of Co-operative Societies (RCS), Government of Odisha

Smt. Gayatri Patnaik presented an overview of the co-operative banking ecosystem in Odisha. She shared that Odisha had a total of 9,183 co-operatives in diverse sectors including weavers, fisheries, and dairy. She explained that her focus would be on the Primary Agricultural Co-operative Societies (PACS) as co-operatives. She highlighted the membership and member transaction profile of PACS in Odisha as given in Table 6 below.

Table 6 Membership of PACS in Odisha

Sl No	Business Involvement of farmers through PACS	No. Of Farmers (in Lakhs)	Remarks
1	Enrollment Under Cooperatives	55.21	Member
2	Enrollment Under KCC	46.58	Member
3	Regular Borrowing under KCC	36.31	Member
4	Crop Insurance (Khariff & Rabi)	21.20	Member & Non-Member
5	Paddy Procurement(Khariff & Rabi)	10.07	Member & Non-Member
6	PSS and Millet Procurement	1.63	Member & Non-Member
7	Seed Purchase	3.89	Member & Non-Member
8	Fertiliser Purchase	6.00	Member & Non-Member
9	Deposit parking	5.00	Members
10	JLG SHG TFG	11.00	Members

Source: Presentation on PACS by Smt. Gayatri Patnaik

The total number of PACS' members is 55.21 lakhs. Of these, 46.58 lakh members had enrolled under the Kisan Credit Card (KCC) scheme, with 36.31 lakh members regularly borrowing under KCC. A total of 21.20 lakh farmers, members and non-members, had PACS crop insurance (*Kharif* and *Rabi*). Only 5 lakh members out of 55.21 lakh members were parking their deposits with

PACS. Smt Gayatri added that many farmers availed services from PACS without enrolling as members.

Smt. Gayatri said that paddy acquisition was Odisha's largest procurement activity, with the state as the buyer granting farmers paddy procurement facilities. The paddy procurement operations began in 2005-06 and expanded dramatically over the last decade, with PACS playing a significant role. A total of 10.07 lakh farmers, members and non-members, used **PACS' paddy procurement services**. PACS played an instrumental role in extending the **MSP regime to the grassroots level**, through its vast network of farmers availing paddy procurement services. PACS launched the **Price Support Scheme (PSS) for millets, oilseeds and groundnuts** three years ago, helping 1.63 lakh farmers who were mostly members. About 3.89 lakh farmers were associated with PACs for **purchase of seeds** and 6 lakh farmers for the **purchase of fertilisers**.

Smt. Gayatri also noted **that landless farmers** constituted one of the largest chunks of the farming community in Odisha. She said that owning land was essential for most agricultural co-operative system services, be it co-operative membership or KCC and other loans. This fact alone prevented **landless farmers from accessing services through agricultural co-operatives**. To address this gap, the Odisha government made a provision in 2011 to include landless farmers and tenant farmers in the Cooperative Act membership clause. Farmers engaged in agriculture but without land in their names could form groups such as the Joint Liability Groups (JLGs) / Tenant Farmer Groups (TFGs). The JLGs / SHGs / TFGs could become voting members in PACS, which gave **them representation and decision-making powers in the PACS**, as well as access to KCC and other loans.

According to the Vaidyanathan Committee report recommendations, depositors were to be granted due importance in a co-operative in a way that without making a deposit one could not become a voting member of the co-operative. As a result, membership of JLGs / SHGs / TFGs in co-operatives showed an increasing trend.

Smt. Gayatri also reported that **80% of PACS' business comprised credit services and the remaining 20% services including fertilisers, seeds, and consumer goods.** Smt. Gayatri summarised that all the 2,780 PACS, with the support of CCB and OSCB, were the biggest financiers of paddy in Odisha. Of a PACS' total credit business, 90% were STCC loans mainly for paddy, while 10% were term loans. Within STCC, Odisha had a financing scale of 30 crops, despite which 80% of the finance went to paddy. **Paddy is mainly a subsistence crop with poor commercial returns, which impacts recovery.** Realising that paddy has garnered a lot of attention, the Odisha government began to focus on crops like oilseeds and pulses. To support this grain-based procurement and marketing, the government expanded godowns. Today Odisha had around 3 lakh MT storage capacity created in the last five years. She added that Odisha did **not have adequate infrastructure for horticulture produce like vegetables.**

She also reported that PACS had been instrumental in expanding organised marketing for paddy in Odisha. Increasing the number of paddy procurement centres helped promote the linkage of large numbers of paddy farmers to organised marketing. This also helped expand the Minimum Support Price (MSP) regime to remote rural Odisha. Table 7 below shows paddy procurement data up to 2009-10.

Table 7 Paddy Procurement in Odisha

year	paddy production in Orissa	paddy procured in the state	procured by PACS	No. of PACS	Nos of farmers	Amount
	(In 000 M.T.)	(In M.T.)	(in MT)			(In Crores)
2003-04	NA	2722909	44967	118	8058	2473.18
2004-05	9905.24	3044756	86973	269	16126	4679.15
2005-06	10392.49	3201907	121376	461	32081	7403.94
2006-07	10784.33	3123695	117293	646	34603	7272.17
2007-08	11430.40	3635320	121494	647	25203	8504.58
2008-09	10322.33	4492451	304715	846	NA	27424.35
2009-10		4800000 (p)*	1590393	1215	341445	159039.30

Source: Smt. Gayatri Patnaik's presentation

Smt. Gayatri said that Odisha has a very large co-operative membership base that is inclusive of small farmers, marginal farmers, landless farmers, and tenant farmers. She said that however, the **organisational capacity to deliver services was weak** and needed to be addressed.

She concluded by stressing the **need for organised marketing across crops**. She said that organised marketing was limited to MSP crops. She said that a strong need was felt to address marketing gaps like grading, standardisation, infrastructure, supplier arrangement, and professional management. These gaps have caused distress sales leading to low profits for non-MSP crops. She added that structural issues in agricultural credit also needed to be addressed including indebtedness and poor recovery.

3.7. Panel Theme 6: Overview of Regional Co-operation for DFI in the context of policies, market, and networks

Panel Expert Mr Balasubramaniam (Balu) Iyer, Regional Director, International Co-operative Alliance – Asia Pacific (ICA-AP)

Mr. Balasubramaniam started with a brief introduction of the International Cooperative Alliance (ICA), founded in 1895 and representing various co-operative institutions like national federations, apex organisations, and government departments from 109 different countries around the world. The total co-operative membership worldwide is 1.2 billion, each sixth individual being a co-operative member. The world's top 300 co-operatives' total annual turnover is about \$ 2.01 trillion. The co-operative movement has a long history of 125 years of adherence to some basic principles. Mr. Balu highlighted the role of **Principle 5 in education, training & information**. He made a point of touching upon the need for awareness building around co-operatives and their work. He shared an anecdote about his visit to Shri Ram College of Commerce in New Delhi, where only 5 out of 100 students were aware of co-operatives and only one co-operative at that - AMUL. Although co-operatives are integral to our lives (he cited the co-operatives for milk, sugar, consumer, bank etc.), awareness about them as an institution is very limited, even among the educated. So, there is a need to inform and educate the public about the co-operative sector.

Another principle he touched upon was the **Principle 6- Co-operation among co-operatives**. Mr Balu said that ICA and co-operatives were, generally, faced with similar challenges. He said co-operatives needed to collaborate to grow and reinforce each other. In addition, the co-operatives needed to come out of their silos to engage with one another and also build capacities of their members in the process. He emphasised regional co-operation among the co-operatives citing the example of ICA with its four regional offices in Africa, Europe, America, and the Asia Pacific.

The Asia Pacific office was established in 1960 in New Delhi, and the Malaysia business office was set up in 2013. ICA's Asia Pacific region has close to 107 members from 33 different countries, from Palestine in the east to Fiji in the Pacific - quite a wide geography has been covered. Unlike not-for-profit organisations, co-operatives are essentially business entities. This has been ICA's key concern in the region since promoting regional co-operation means promoting business. Continuing this discussion, he spoke about 'world co-operative monitor' that ranked amongst the world's top 300 co-operatives. Of these, around 90% co-operatives were related to **agriculture and allied sectors that** were closely linked with both **consumer and banking co-operatives**; thus, all three areas covered the bulk of the co-operative sector. He said it was important to strengthen each of them by developing a solid ecosystem for mutual benefit. Credit co-operatives, for example, supported others including consumer and producer co-operatives. Producer cooperatives handled consumer cooperatives directly, and the link continued to build.

He mentioned how **Sustainable Development Goals (SDGs)** could be used **to promote the work of co-operatives**; this is because in almost all the 17 SDGs (poverty, hunger, education, health, sustainable communities, partnership, and climate change) co-operatives were involved.

He also touched upon the impact of climate change on agricultural production and farmer incomes. He said that if we were talking about DFI, we should also focus on making our agricultural practices and production systems more resilient. Similarly, just focussing on production was not enough; we also needed to focus on reducing food wastage. The focus should be on making agriculture more systematic and sustainable.

He also shared his views on issues mentioned in the concept note, in particular governance, leadership and human resource, member centrality, infrastructure and government strategies and policies. On **governance, leadership and human resource**, he emphasised the need to **engage**

more women and youth in co-operatives. In the context of **member centrality**, he stressed that the lack of data concerning co-operatives (leaders, businesses, etc.) made monitoring of performance and growth criteria very difficult. He also stressed the use of technology and its alignment with the operation of co-operatives. With regard to infrastructure and the environment, he spoke about waste management and how waste income could increase DFI. Ultimately, he praised the new government's engagement in this respect (fostering 10,000 farmer producers organisations) under its strategies and policies. He emphasised the need to look at the main agricultural co-operative societies, which were part of the FPOs, at the same time. Finally, he cited examples of **innovative co-operatives from different parts of the South Pacific region.** The first reference came from Japan, which has a '**cradle to grave**' policy. The member was at the core of this co-operative model, and the co-operative worked to provide all the members products and services. So, an agriculture co-operative did not just provide inputs, but also technical support regarding performing different agricultural activities, credit to manage these activities, and product processing and marketing. Simultaneously, it also provided ancillary services related to health, insurance, education, among other things, to members. It, thus, took care of members throughout life. An example cited from Japan highlighted **the 'Sankushi' model**, emphasising the role of three elements – traceability, standardisation, and communication, in a co-operative's growth and development. Communication is very necessary, particularly from the consumer's perspective. If consumers know what a co-operative is and how it operates, they will make smarter and educated buying choices. He then cited Malaysia's whereby product and process advances such as better packaging and branding help co-operatives add value to their products and thus connect them to the wider industry. Citing an example from Korea, he spoke of an e-commerce site capitalising on new age customers who preferred to shop with the convenience of their mobile

screens and wanted items delivered to their homes. Finally, he cited the example of the Indian Farmers Fertiliser Co-operative (IFFCO), which had increased women' engagement and participation at all organisational levels through strategy and policy changes (reservations of seats for women candidates) and product innovations (woman-friendly agricultural equipment).

He concluded by underlining **the need to provide the co-operative sector with a unique identity**- a coop logo, for example. If all cooperative products had this logo, a recognisable identity would be established. If over three million enterprises had the same logo, a recognisable identity would be created, increasing visibility visible across countries and helping build a co-operative identity.

3.8. Panel Theme 7: Modelling successful farmer engagement/dairy entrepreneurship through Market orientation in Gujarat – Role and Experience of GCMMF

Panel Expert Mr Manoranjan Pani, Senior General Manager (Sales and Marketing), Gujarat Co-operative Milk Marketing Federation (GCMMF)

Mr. Manoranjan Pani shared his experience of having worked with the dairy industry. He also emphasised how others could learn from the success story of AMUL- a brand with visionary leadership, which had, a long time ago, considered issues discussed today. In particular, he focussed on the intricacies involving the dairy business. He hoped that through this panel discussion, every participant would learn something useful. He began by summarising Dr Kurien's quote, "One's first duty is towards the nation, second duty is towards the farmer, third duty is towards the institution one is working for, and fourth is towards self". He highlighted the importance of the farming community in a predominantly agrarian country like India and how one

could lead a satisfactory life by working for farmers. Discussing doubling farmers' incomes, he explained the economics in a very simple manner, using everyday life examples.

He said if one wanted to get more from whatever one was producing, one needed **to get a higher price for the agricultural produce**, and for this one could **a) improve one's productivity b) reduce one's cost and c) look for new markets**. One way of improving productivity was by manufacturing value-added products. For example, raw milk fetched INR 40-50 per litre, while flavoured milk fetched almost INR120 per litre- such innovations could help improve incomes. Another approach is to search for new markets to create more sales for one's products or looking for new markets for one's produce to generate more revenue – for example, selling milk products in places like Guwahati, where the milk industry is relatively underdeveloped. On cost reduction, he spoke about using cheaper transport for consignments. Finally, he talked about the rigour and commitment of AMUL employees who had internalised the principles of value addition, cost reduction, and capturing new markets.

Speaking of the **dairy business**, he said that it was an INR 7 lakh crore business with 50 crore litres of milk produced in India, of which GCMMF's share was only five per cent. He stated that when Dr. Kurien joined the dairy sector in 1946, there were only 250 litres of milk available on a daily basis, compared with 260 litres from AMUL last year, which was **10 lakh times more**. Around 36 lakh dairy farmers from 17-18 thousand village co-operative societies in all the districts of Gujarat were involved in the procurement, processing, and marketing of milk and milk products. They were the owners of the AMUL brand and were fetching around 80%-88% price realisation of the milk sold to the end consumer; this was much higher than other agricultural products (30-60%). This was due to the constant increase in production and price paid to members over the

years. The income of dairy farmers increased at a rate of 6% per year, making AMUL a very good model for doubling farmers' incomes.

He then touched upon the **characteristics of Amul that other organisations could emulate** to achieve similar success. He mentioned three items – men, machine, and material – that determined the success of a business. In the context of AMUL, the men were all the people involved in its three-tier structure including members, directors, and employees. All the stakeholders had to do their job well to ensure the sustainability of the three-tier system. In order to do this, they had to be treated fairly and respectfully. In particular, the hard-pressed farmers needed to be sufficiently incentivised so that they could appropriately rear their cattle, their main source of the raw material (milk). It was equally important to pay them the right price at the right time. Without sufficient surplus, they would not be able to look after their cattle and keep the dairy cycle going. Thus, GCMMF won the trust of the farmers by treating them correctly. Another way they of winning their confidence was by capturing markets and infusing good business. All this became possible owing to the determination of the leadership of GCMMF. The MD, for example, had served the organisation for the last 40 years. Mr Pani also shared that he had been with AMUL for the past 30 years. Such continuity and consistency matter a lot as far as people and policy are concerned. Finally, he pointed out that, unlike private companies with a minimum cost of raw materials and a maximum selling price (so that profit was higher), AMUL gives farmers a very good price and consumers a fair price, with a profit of less than 15%. Thus, its honesty had helped maintain the loyalty of both farmers and consumers. AMUL was now entering a competitive stage. It has engaged in consumer awareness campaigns to preserve its originality and authenticity, launching successful ad campaigns on butter cookies, ice-cream, and vegetable oil.

He concluded his session by suggesting that all SHGs in Odisha take up dairying because a) dairying in Odisha is reduced compared to cultivation and b) the per capita consumption of milk in Odisha is only 138 grams compared to 360 grams in India. Thus, there is a lot of **scope for dairying in Odisha** and SHG is one medium through which it could be worked out.

3.9. Panel Theme 8: Role of competence enhancement through research, training, and capacity building in the co-operative sector for enabling DFI

Panel Expert	Dr KK Tripathy, IES, Director, Vaikunth Mehta National Institute of Co-operative Management (VAMNICOM)
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Dr. KK Tripathy began by emphasising that the economic environment has undergone a dramatic change over the years, as has the co-operative movement. He highlighted how **globalisation had opened our economy to new challenges, risks, and uncertainties**, and how the markets had expanded because of which co-operative societies faced stiff competition.

At the same time, he also stressed that there were many opportunities in the co-operative sector, particularly in Odisha, where only one form of co-operative, i.e. PACS, was prevalent. There is a **need to develop other kinds of co-operatives** like marketing co-operatives, consumer co-operatives, women co-operatives, multi-purpose co-operatives, and service co-operatives.

First and foremost, **capacity building** is needed for various co-operative institutions, especially government functionaries managing these institutions. **Reforms** have to be introduced, both at policy and operational levels, for which both co-operative and non-co-operative training institutes need to get involved.

He added that **training-need analysis** was necessary in order to achieve realistic training requirements and policy. **Customised training calendar and content** needed to be developed, considering the needs of the changing business environment. For example, in the case of doubling

farmers' incomes, **training themes** could include how to shift production orientation to livelihoods, how to open up agri-markets to competition, and how to provide better marketing infrastructure. Adequate **training infrastructure** also needs to be provided for computers, projectors, and some hardware facilities in various CTIs.

Availability of **training material in the vernacular language** cannot be emphasised enough. Also, the use of IT and e-learning platforms should be augmented so that expert training reaches a larger number of co-operatives.

The training of **co-operative leaders and senior bureaucrats** is also important. Experience Co-operative leaders' expertise should be taken into consideration while designing training programmes for them.

Training on recent issues like new laws, technology, innovation, and policy change, must also be considered. Employees, particularly those from rural areas, should be trained to use the latest technology. Good co-operative performance should be documented as case studies for referencing during various training programs.

He also emphasised the **importance of the professionalisation of co-operatives**. Some matrices of duties and obligations need to be drawn up in consultation with various agencies in the field. For stakeholders of the CTIs, SWOT analyses should be conducted. CTIs' core competency should be developed to enable CTIs to view their role more scientifically, vigorously and persistently, making them more efficient (including cost-effective).

He also highlighted the **importance of research & development for the co-operative sector**. He said that data needed to be collected from the grassroots level, using technology-based e-solutions. Every state union should have a scientific research and policy cell to establish appropriate

information content. Finally, he suggested engaging in **action research** where VAMNICOM, Ministry of Agriculture and IRMA could contribute. He added that action research could be conducted in the aspirational districts: by adopting a co-operative, developing a business plan for the co-operative (samples could be drawn from co-operatives involved in agriculture & agri-business sectors), drawing up capacity building plans, and helping co-operatives grow with an appropriate business development plan.

3.10. Panel Theme 9: DFI Policy Perspective

Panel Expert Shri Lav Bhardwaj, Young Professional, Development Monitoring and Evaluation Office (DMEO), NITI Aayog, Government of India

Shri Lav Bhardwaj presented his personal and institutional views on the various institutional arrangements by NITI Aayog and the Government of India, and how the policy dialogue is moving in terms of doubling farmers' income (DFI). He outlined eight pathways for further deliberation based on 1) the Ashok Dalwai Committee Report on DFI, consisting of 14 volumes; 2) the policy paper for DFI by NITI Aayog member Prof Ramesh Chand; 3) Evaluation studies that were conducted in the DMEU vertical of NITI Aayog; 4) the Output Outcome Monitoring Framework, which was one of the adjoining documents in the Budget 2019; 5) References made by senior management of NITI Aayog as well as the Prime Minister's office.

He said that the Prime Minister wanted DFI to be a key strategy to be achieved by 2022, when the nation has completed 75 years. Members of NITI Aayog, the CEO as well as senior management have, on various occasions, touched upon DFI, particularly in relation to **better price realisation and better marketing avenues** and opportunities that can drive DFI.

He suggested that the **new Land Lease Bill**, which had been passed and which the NITI Aayog has been trying to drive throughout the country, was one major intervention that could be implemented by the state governments. The Land Lease Bill would **facilitate contract farming** while making it **more market-driven**. The whole exercise could take us one step closer to what the market was aiming for.

Secondly, Shri Lav shared that **agricultural marketing** was a big challenge in terms of the current infrastructure of **APMC and eNAM**. He discussed an evaluation of eNAM conducted by the NITI Aayog, which could be a game-changer in terms of **price realisation for farmers**. The evaluation showed that, although the systems of eNAM were in place, transactions were almost non-existent, as a result of which actual price realisation was yet to become a reality. He urged state governments to partner with the centre for eNAM to be implemented smoothly and for price realisation to become a reality.

The third point discussed by Shri Lav concerned the **model APMC Act**, which had been in place for some time but needed to be implemented in order to improve the existing market structure for the farmer and to have a fair deal. He shared from the Ashok Dalwai Committee Report that the existing market infrastructure was 1083 square km, while what we needed to work on was a **hub-and-spoke model**. Not only did the farmer need increased **access to market**, but also needed the **right price for the right quality**.

Shri Lav indicated a **shortage of private investment in value chain creation**. One of the reasons for this is the lack of attention to contract farming. As far as contract farming is concerned, he explained that if the right model for contract farming based on customisations was actually implemented for a given region, good inputs, technology, skills and prices could be provided to the farming community and to the collectives in principle.

Another point he addressed involved **promoting value chains**. He said that the CEO, NITI Aayog, had stated on multiple fora that we need to indicate producers and form uniform value chains for domestic production and work separately towards exports orientation. Therefore, the **value chain needed to be tailored** via an **ecosystem approach**, in terms of agglomeration and not just aggregation of different systems coming together. He added that enterprises, farmer collectives, and credit institutions needed to come together as a living entity and function proactively.

Shri Lav referred to the budget announcement **to promote about 10,000 farmer producer companies**, the core responsibility of which rested with SFAC and NABARD. But various policy debates highlighted the need for **state-level agencies** to promote, create, nurture, and establish FPOs. This had to be a lifecycle approach by the state-level agencies instead of only the central agencies. Shri Lav also pointed out that **success stories** should, depending on products or services, **be implemented** in different regions, clusters, districts, and inter-districts.

He also emphasised the need to **link production to processing**. He said that despite high demand for processed food, the production had risen at an abysmal pace in the country between - from 2011-12 to 2015-16; the output of food processing industry had grown at a slow pace of 3.6%, while the overall economy had been growing at 7% to 8 %. He added that the **food processing sector held promise for value addition**. Moreover, in a state like Odisha, there was ample opportunity for value addition in areas like horticulture and fisheries that could fetch much higher prices to farmers.

Shri Lav Bhardwaj also addressed NITI Aayog's co-ordination and participation of states and districts as an important concept. For example, the Aspirational District program could offer a time-bound business plan for given clusters. Shri Lav also cited a recent visit to an aspirational district Chamba, Himachal Pradesh. In some of Chamba, he observed the agriculture officers

taking the lead. Through the convergence of various schemes like MGNREGA, fencing to prevent animal attacks and micro-watersheds, they had produced almost double or triple horticultural productivity, leading to a doubling of farmers' incomes within eight to nine months in some cases. He found the agriculture officers had to be willing to learn from and grow with the people. He mentioned that bureaucracy structures posed a problem, which didn't encourage many organisations to function optimally. He said that in order to address this gap, **training programmes, community sensitisation, and state sensitisation for co-operatives** needed to be implemented on an urgent basis. This also included **capacity building and training of the field functionaries** who were working in the sector.

Shri Lav's last argument was about the **Output Outcome Monitoring Framework**, which was a crucial policy document in the current year's budget. The document comprised 700 government's **centrally sponsored schemes**. The government has divided all the **programmes into measurable indicators**. He stressed that the government was gradually moving to a model in which the government functionary was **not only responsible for money spent but also the outcomes achieved**. Illustrating the case of co-operatives and agricultural production, Shri Lav clarified that the state and district machinery will now have to disclose not only how much agricultural land was under a specific system, but also how much productivity had increased.

3.11. Concluding Remarks by Panel Moderator

Panel Moderator Prof Harekrishna Misra, Chair, Verghese Kurien Centre of Excellence, Institute of Rural Management Anand (IRMA)

Prof. Harekrishna Misra presented key takeaways from panel discussions and highlighted the relevant points of debate. He said the panel discussions had concluded with the view that the cooperatives' position is much more relevant in India's DFI context. To remain competitive and acquire best practices to survive in markets that have become aggressive due to globalisation and liberalisation, the co-operative's role is seen as a befitting response. Co-operative models like the Anand Pattern needed replicating, he said.

He concluded that the panellists, with diverse and enriching perspectives on approaching DFI, had laid the groundwork for insightful discussions on four themes: 1) Governance and Leadership in Co-operatives; 2) Infrastructure Services and Convergence; 3) Member Centrality; 4) Government Strategies and Policies. The theme-level exercises had aimed to derive inspiration from the strategic insights and chart out possible roadmap to support DFI implementation in Odisha. After covering four themes, all the participants would consolidate their deliberations and create a prioritised action plan with recommendations to the Government of Odisha for consideration.

4. THEME 1: GOVERNANCE, LEADERSHIP AND HUMAN RESOURCES IN CO-OPERATIVES FOR ENABLING DFI

Session Chair: Balasubramanian (Balu) Iyer Regional Director, ICA-AP

Theme Moderator: Prof. Sridhar Vishwanath

Rapporteur: Shri Mohit Dave and Dr Avinash Ghule

Introduction

All the deliberations held during the theme discussion on ‘Governance, Leadership and Human Resource’ in Cooperatives, converged towards a significant conclusion that co-operative governance was all **about a balance between the process of making decisions and the process of implementing those decisions.**

It emerged that with the advancement of the co-operative structure, the nature and scope of their operations, mainly two forms of leadership had evolved. These included democratic and bureaucratic leaderships, both of which demanded a higher level of professionalism. For most co-operatives that had failed to deliver, the root cause was inside the organisation, primarily, as a result of leadership crisis that could be visible both at political and professional levels.

It emerged that the co-operative governance was an amalgamation of some of the crucial indicators which include Participation, Transparency, Accountability and Anticipation.

Key Discussion Points

i) Participation: The leadership needed to focus on **continuous and incremental member engagement** to set up a healthy co-operative environment. For that, one needed to examine an organisation’s current engagement level, encourage voluntary participation, and monitor membership engagement efforts. It was very important to **understand the members and communicate with them** consistently to devise specific strategies instead of making generic

choices. Further, the **vision and objectives of the organisation needed to be in consonance not only with the needs but also with the interests of members**. Therefore, co-operative formation and development requires a bottom-up approach instead of a top-down attitude.

During the discussion, it emerged that co-operatives should be able to **differentiate between their members and non-members**. It was decided that strict membership criteria should be in place to keep governance away from any overbearing external influence. At the same time, ways need to be devised to phase out inactive members in order to maintain the collective health of the organisation. Therefore, in order to **boost the sense of belonging and the involvement of members**, it is necessary to communicate how the co-operative operates, how it is managed, and how enterprises will be managed in future. An excellent example is AMUL, where it is a normal practice to encourage members' visits to the dairy plant and have them observe the process. Through the years, this has contributed to increased access to the milk union and members' involvement.**2) Transparency:** Transparency is crucial for the progress of organisations including co-operatives, as it helps not only to earn the stakeholder's trust and build confidence but also recognises their importance in the growth and development of the organisation.

Each co-operative must have a **reporting system** as part of good governance practices and professional HR processes, ensuring timely publication of reliable periodic operational and financial reports. These reports may be used frequently and efficiently to track, monitor and assess the cooperative's results. One of the most effective ways of making co-operatives more accountable could be **routinely posting and circulating activity reports, newsletters, and annual reports.****3) Accountability:** Inculcating a co-operative spirit is believed to be an important condition for collective organisation responsibility. Co-operatives must objectively evaluate their control mechanisms and find ways of adding more commitment to their proposals to comply with

established conventions on effective governance. Leadership must be kept up-to-date on the different operations as well as all facets of the enterprise, for which they should be willing to undergo appropriate training.

Co-operatives must maintain written manuals that **indicate the rules and procedures** for each field of co-operative operation. It is also necessary to maintain an appropriate rotation of the accounting and finance staff. It is equally necessary to provide the accounting department with adequate personnel and the expertise and knowledge needed to manage the department properly.

In addition, it is the responsibility of the management of the co-operative to successfully **establish, administer, and supervise an internal control structure**. Constant vigilance and monitoring positively guide paperwork documenting the transactions, as well as their accounting records and the filing of financial reports showing the condition and performance of the co-operative.

4) Anticipation: Co-operatives must design a strategy that is well matched with the organisation's policy and structure. A clear line of thought is needed for this, which could be accomplished via certain measured parameters like purpose. Therefore, co-operatives are supposed to find ways of distinguishing themselves in the marketplace in order to enhance their ability to negotiate. That is why it is important to follow a relevant structure, either multipurpose or niche co-operative, during the organisation's initial phase. For instance, it has emerged time and time again that PACS needs to be promoted as a single-window mechanism that can meet both individual and collective needs of members. Nonetheless, the decision on a particular structure should not be focussed solely on popular perception, but on empirical evidence via baseline surveys, pilots and so on to achieve a higher degree of success. This could be done through proper surveys of local requirements.

For a common purpose, therefore, consistency of thoughts might bring everyone together. It is very important to foresee the change attributed to financial and/or social dynamics, and to take

measures for **strengthening governance and cooperative development**.

Concluding Remarks of the Moderator

It emerged that **inspiring leadership with a voice in decision-making** was necessary for the sustenance of co-operatives. Leaders need to be true representatives of members and should be **democratically-elected** without any influence of the external environment. The confidence of the farmer needs to be reflected in the leadership. These leaders constitute the board (of directors of the managing committee) of the co-operatives and play an important role by collectively directing the society's activities while working towards accomplishing the organisation's objectives. They are responsible for ensuring equal opportunities for its members, fair financial and economic activities of the cooperative, and compliance with relevant government regulations.

For that, members' **sustained awareness campaigns and skill development workshops are needed** for co-operative leadership and operational development. Disseminating the latest literature and organising training and demonstration sessions to keep farmers up-to-date is a possibility. Furthermore, contemporary role models must be established who can inspire. Many successful co-operatives can play a significant role in promoting such profiles to motivate others in today's 'Glocal' environment. This narrative could generate a 'positive narrative'. This will also facilitate the inclusion of younger people in the administration of co-operatives, stimulating fresh ideas and encouraging active member engagement. It is important to understand the importance of updated knowledge under the new regime. **IT-based reporting and networking** should be a priority for all co-operatives.

Capacity building and awareness programmes, among other considerations, are crucial steps both before group formation and during the creation and growth of the organisation in order to improve the governance structure. This orientation tends to inculcate participation and confidence,

a precondition for co-operative growth. A deliberate approach should also be implemented in all core functional areas to establish a second line of management. Training manuals for trainers, such as the one developed by ICA-AP to strengthen women's leadership in co-operatives, need to be developed based on local knowledge and need. There is also a need to engage in building an ecosystem within co-operatives to reflect an awareness of the complexities surrounding women's lives and addressing issues with better outcomes for women.

Despite being listed after all else, **legislation in co-operatives** still holds the highest ground as far as governance in co-operatives is concerned. The gravity of the topic could be gauged from the fact that the Hon'ble Minister for Agriculture Dr. Arun Kumar Sahoo also requested the gathering to suggest relevant recommendations for reforms in the existing co-operative acts in order to strengthen the state's co-operative fabric.

Continuous innovation is then required. Questions and not answers leading to creative searches, the use of advanced strategy techniques, the disposal of outdated practices involving young people and women in transition, recommendations by stakeholder groups, networking for competitive benefit, and forming larger partnerships and networks with other co-operatives could become the new approaches. Furthermore, it is very important for Odisha co-operatives that members **participate actively in capital formation, co-operative governance, and patronage of the co-operative's products and services.**

5. THEME 2: MEMBER CENTRALITY IN COOPERATIVES FOR ENABLING DFI

Session Chair: Dr Patanjali Tripathy / Dr Shantanu Ghosh

Theme Moderator: Prof. Saswata Biswas

Rapporteur: Shri Lav Bhardwaj

Introduction

Member centrality can be the cornerstone of a co-operative as a member-driven organisation. The key principle of member centrality is how co-operatives can share a central space for the farmers' incomes and lives. In the case of a producer cooperative, various aspects have an effect on the member centrality of the cooperative. Earlier it was assumed that the price paid by consumers was key to determining member centrality. Research has shown, however, that pooling members' capital to increase efficiency and competitiveness could also contribute to member centrality through technological intervention. Market access was another important consideration in determining member centrality. The panel participants were requested to brainstorm about what the cooperative should do to occupy the central space in a farmer's income and life.

Key Discussion Points

Database of cooperative members: Co-operatives in Odisha should provide a robust record on member enrolment, as well as on member and non-member transactions. The database will provide clearer insights into whether the co-operative is central to member incomes and lives by indicating the frequency of member transactions and the contribution to member incomes of co-operatives. If the member database is accurate, we could have equitable credit distribution between deserving members with better borrowing behaviour and credit scores.

The 'Kalia' scheme was a successful starting point for building a database. Yet, the 'Kalia' database was not purpose-centric- it was mainly intended to grant subsidies to the farmers. The details in the Kalia database needed to be more comprehensive and elaborate so that the interests and feasibility of members could be measured for what they were doing. An extensive farmers database was required so that micro-analysis and micro-planning could be carried out at the PACS stage.

Understanding the needs and expectations of members: The farmers became members of the co-operative society with some perceptions of the advantages they had not obtained before.

As a member, the farmer is interested in how she will participate and benefit from the co-operative. As an earner, she is interested in obtaining economic benefits to boost her profits. As a user, she is interested in co-operative resources such as loans, farm supplies, etc.

Power and control in the hands of a few members: A group of influential persons control the activities of the co-operative in the name of the majority. For example, zero-interest loans offered by PACS are used only by a small group of influential persons. A solution is needed to expand the zero-interest loan scheme to the more deserving needy members such as marginalised farmers.

The dilemma is that few individuals, for whom the co-operative is not integral to their lives, manage the co-operative. Co-operative leadership has very little stake in their organisation. To change the situation, it is proposed to switch towards patronage-based equity and patronage-based voting, i.e. the member who takes more services gets more benefits. For example, in a paddy-growing co-operative, the more a farmer he produces, the more equity he will get. The fact that most PACS members are riddled with the "Beneficiary Syndrome" was also discussed. In other words, PACS members see themselves as beneficiaries of government programmes, including loan interest subsidies and MSPs for paddy. The beneficiary mentality was more dominant relative to

the user/owner mentality among members. Members should be made aware that they are co-operative owners and users; this could help them become more involved in the management of the co-operative.

Size of the Governing Board and Member base: The composition of Odisha's co-operative board was raised to 21 five years ago. The board's 21 policy makers were unwilling to work together, impacting business planning, decision making, and professionalism. The board's optimal size had to be considered for the cooperative society's proper functioning. When a co-operative's membership size rises beyond a certain threshold, the society is unable to offer total support to its members. It is important to maintain the membership threshold size for viability purposes.

Diversifying the co-operative into multiple purposes: The households in a village deal with different economic activities. Therefore, the cooperative's business portfolio could be optimised for services and products to suit the farmers' collective needs.

In addition to paddy, farmers also cultivate other crops, including vegetables and pulses. The co-operative may provide marketing and procurement services not only for paddy but also for other crops grown by farmer members. For example, for his okra crop, which is sold at the retail point for Rs. 30 per kg, a farmer receives Rs. 12 per kg. Between wholesale and retail, there is a 40% margin. Selling other crops at remunerative prices whilst bypassing intermediaries will make the cooperative more central to the life of the farmer.

A **case study of Amalsad Cooperative** in Valsad, Gujarat indicates that member centrality may be accomplished by introducing income centrality and diversifying into other businesses that are important to members. When Amalsad farmers discovered that they did not receive remunerative prices for their sapodilla produce, they collectively decided to pool the same and sell it directly to a trader in Delhi. The seller understood the order to be received, the estimated quantity, and all the

sapodilla categories. He arranged local logistics accordingly. A truck reached the location every day. He invited retailers to the afternoon auction; the money was transferred online to the co-operative and credited to individual members' accounts in 15 minutes (proportionately to the grade and volume of sapodilla delivered). From the sapodillas' acquisition to crediting the farmers' accounts, the purchasing process was executed in less than 48 hours. It went directly to the terminal market with no intermediaries. The farmers got 25% higher rates. Over the last 17 years, they had diversified into stores selling groceries. In addition, a three-month credit line was offered to members against their fruit supplies. They had also expanded into other FMCG products, supplying cement, steel and even firecrackers during Diwali. Such an experiment may be attempted in Odisha with one or two crops that are central to the farmers' incomes.

A co-operative in **Bongadi, South Karnataka**, also diversified its co-operative businesses beyond agriculture. They sold daily groceries, cement, hardware and also ran a small supermarket. In Odisha, there were different co-operatives for different activities. These could converge under one co-operative for increased member centrality. One or two members with good leadership skills, who could take an interest in members, were identified to develop an experimental or pilot model for others to learn from. The **examples of Gambhira, the Amul model and Sunderban Milk Co-operative and Livestock Producers Union** were cited from the standpoint of diversification of co-operatives.

Furthermore, it was thought that if a co-operative had multiple businesses, a very strict differentiation would be required. One that does not subsidise or cannibalise the other.

Incentivising farmers to transact with the co-operative: A co-operative should incentivise members so that more members want to be an integral part of it. For example, PACS could identify good borrowers with a good repayment history over the past three years. These borrowers could

be sanctioned higher loan ticket sizes based on their good borrowing behaviour. Creditworthiness needs to be assessed to ensure that centrality is maintained in the member base.

Member succession plan: It was noted that member centrality was also an obstacle, the succession strategy not being in accordance with the cooperative spirit. Young people from cooperative members' households were not interested in what their parents did, which could affect the co-operative society's business sustainability. If the context and attitude were to change, the co-operative business model could adapt and evolve to ensure stability and sustainability.

Expanding the membership base of the cooperative: Owing to limits imposed by co-operative rules and regulations, several prospective members residing close to the co-operative get disqualified. For example, sharecroppers and women farmers who did not own land but who could benefit immensely from the co-operative were excluded.

Ease of access for members: Apart from income and diversification of services and products, member centrality could also be driven by ease of access and information dissemination to farmer members.

Turnaround time of member payments: The essence of AMUL's co-operative model is that when the farmer pours milk in the morning, he gets paid that evening; if he pours in the evening, he gets his payment the next morning. Similarly, for the Amalsad co-operative, farmers receive payments in their accounts within 48 hours of supplying chikoo or sapodilla. One of the challenges of poor membership in Odisha's dairy co-operatives is delayed milk payment.

Convergence plan to streamline services to members: It was mentioned that farmers' clubs were more effective in helping farmers collect and sell their produce in some border tribal districts than PACS and LAMPS. Farmers' clubs have become conduits for receiving farm extension

facilities. It was noted that KVK and ATMA also have the mandate to provide agriculture extension services in the state. It was recommended that the activities of farmers' clubs, KVK, ATMA, LAMPS and PACS be converged as a way to streamline facilities for PACS members and prevent duplication of efforts.

Concluding Remarks of the Moderator

The extent to which a co-operative **becomes central to the life of the farmer member** needs to be understood.

A key indicator of member centrality **is the proportion of the farmer's overall profits from the co-operative**. The co-operative should give a maximum percentage of its earning to the farmers to improve income centrality. Income centrality was found to be a major challenge in the case of OMFED- while the apex organisation may have profited, the district unions and farmers were not getting remunerative prices for their milk.

The second indicator is what **other tasks are carried out by a farmer through the co-operative**. Apart from economic transactions, is the co-operative central to his life in any another way?

When member centrality is high, children are more likely to be influenced by their parents. Young people, however, are no longer interested in following their parents' footsteps due to low member centrality. Professionalisation and subsequent business transformation are required for a co-operative to ensure member continuity, succession, and a sustainable future.

6. THEME 3: INFRASTRUCTURE, SERVICES AND CONVERGENCE OF ECOSYSTEM FOR ENABLING DFI

Session Chair: Dr K K Tripathy

Theme Moderators: Prof Shivshanker Singh Patel

Rapporteur: Ms Shilpa Gole

Introduction

Doubling farmers' income via co-operatives includes improving facilities, reviewing programmes, and understanding the present co-operative ecosystem. There were currently different formats of collectives including co-operatives, SHGs, and FPOs; each format needs to be assessed differently. There are problems and challenges in the co-operative ecosystem. Moreover, the environment changes continuously. These problems and challenges could be addressed through technical innovation.

Besides co-operative co-operation, competition is rife between co-operatives. In order to contend with other players, whether co-operative, private or governmental, a co-operative must remain relevant. Operations, like co-operative infrastructure, services, and environmental sustainability, are among the primary facets of staying involved and productive. Infrastructure and services may be broadly classified into 1) Financing infrastructure for farmers; 2) Farm production infrastructure; 3) Logistics infrastructures such as transportation and warehousing; and 4) Marketing. Each of these requires services.

In order for co-operatives to allow farmers to double their income, it was important to recognise and resolve infrastructure problems in the co-operative environment, especially from the point of view of banking, post-production agricultural harvesting activities and warehousing, where the co-operative could introduce horizontal integration and vertical integration.

Key discussion points

Paddy Procurement: In terms of paddy procurement, Odisha's infrastructure is weak despite government interventions. The Government of Odisha has access to grants for infrastructure through the Government of India's Rashtriya Krishi Vikas Yojana (RKVY), NCDC from ICDP scheme and NABARD's Infrastructure Rural Development Fund (IRDF). In the case of Amul, the entire milk supplied by farmers is collected; however, this is not the case with paddy procurement in Odisha.

Odisha has 2,500 PACS in the state for procurement. In addition, the government has opened 3,500 *mandis*^{viii} or Paddy Purchase Centres, each with a radius of 10 km. However, farmers still find it both difficult and inconvenient to visit the *mandis*^{viii}. On many occasions, they have sold their paddy through intermediaries.

Vegetable Procurement: Along with paddy, farmers also cultivate vegetables to a significant degree. Odisha happens to be one of the largest suppliers of vegetables. There is no scheme, however, to procure vegetables at MSPs or at remunerative prices. Giving farmers remunerative prices for their vegetables could be considered if infrastructure, value chain and cold chain system requirements are in place. Thus, farmers could establish trust with the co-operative society and the society would be in a position to fulfil their basic requirements.

Farmers' Database: The need for a robust farmers' database is one of the major challenges co-operatives in terms of allowing farmers to double their incomes. PACS only has a manual database of farmers' results currently. Aggregate data is not available for the number of farmers / users or

the nature of yearly or monthly business transactions of farmers within co-operatives, PACS, or co-operative societies. If a complete farmer database were available including transaction history, preferences (brand, site), and so on, rational decisions could be taken, and the delivery mechanism or procurement mechanism adjusted accordingly.

ICT-enabled information services: Information about farmers is not available in co-operatives. At the same time, the farmer is also not aware of the vulnerability of the market or the weather. Providing details on rainfall forecast at the time of land preparation is an important service that the PACS can provide to its farmer members.

At present, the PACS team consists only of the CEO of PACS and his assistant. While contemplating the development of an infrastructure for IT-enabled services, it is also necessary to hire a skilled / trained workforce with the productivity and skills to handle IT-enabled services. By doing so, the resources of the current workers will be spared, and the resources could be used to diversify into other PACS operations.

Providing professional Input services: For any point of agricultural activity, it might be remunerative for the representatives of the farmer if the PACS offered professional services. This can also inspire farmers to contribute to or engage in agriculture. For example, supplying farmers with sufficient certified seeds and high yielding varieties of seed is a valuable input service.

Diversification of Manpower in PACS: Currently, PACS is focussed primarily on delivering credit services to members of the farmer community. By recruiting more qualified staff, more resources may be provided to members, thereby increasing the degree of interaction between PACS and its members. If PACS requires to diversify into more operations with a view to doubling farmers' incomes, then training additional staff is most important for making them more productive.

Scope for Marketing Infrastructure development: There was significant scope for development so far as the marketing side was concerned for the agricultural producers for whom the co-operative could play a very active role. Today, almost all the co-operatives in Odisha have computers and internet services.

Moreover, the state has three lakh metric tonnes capacity of godown storage under co-operative hold. However, it is not utilised for the purpose for which it was intended. There is a strong need for developing and training a workforce that will run a godown like a professional godown. This will help farmers avoid distress sales, being able to use the storage space of co-operatives for their produce.

Another challenge is that the PACS coverage area is within a distance of more than 100 km. It is very difficult for farmers to transport their agricultural produce over such a long distance, adding significantly to the cost. Therefore, PACS needs to decentralise to the nearest location points of farmer members.

Scope for Warehouse Receipt Financing: The third problem with agricultural commodity marketing is how to get farmers remunerative prices for their agricultural produce to prevent distress sales while satisfying their immediate cash requirements. If bankers consider farmers' receivables as collateral security, immediate cash requirements can be met via the current banking mechanism. The godown receipts could be encashed in the bank and the farmers could get the money in their hand directly. Their produce could be sold either through eNAM or commodity markets, so that they can reap benefits on remunerative prices.

These godowns with a total of 3 lakh metric tonnes, however, must first be accredited for warehouse receipt financing. The WDRA has been funding various training programmes. In addition, 50 PACS were selected for accreditation. The PACS did not, however, complete the next

accreditation phase- scoring based on a sound audit report and positive net worth. Many PACS have failed on both counts.

In some cases, net worth was positive, but the audit report had not been updated. While the PACS was requested to share its audit reports, and Chartered Accountants had been approached for the same. However, there was no progress on the PACS' part.

Scope for Cold Storage: Most Odisha's cold storages are about 30 years' old, with outdated equipment, huge energy bills, and no upgrade or renovation funds. In reality, cold storages could not be renovated- they had to be broken and replaced. As members showed no initiative, the government had to make huge investments. Subsidies were available through the NHB and other agencies, but they weren't ready to take advantage of them.

Paddy procurement is given priority in Odisha through *mandis*^{viii} and to milk procurement through the federation. There is huge scope for procuring vegetables in a similar fashion, but cold storage infrastructure needs to be developed. An alternative infrastructure could be setting up cooling chambers through minimum investments.

Need for Training and Capacity Building: Potatoes and tomatoes are key crops for which Odisha could set up infrastructure. Odisha has a shortfall in potato production. The Potato Mission failed due to lack of storage infrastructure. A small study was undertaken on the marketing of Odisha's tomatoes as a wholesaler for ketchup companies and other private buyers. Training and sustainability were identified as challenges. Farmers lacked expertise and experience to cultivate varieties of tomatoes that were marketable.

Several malls have come up in and around Bhubaneswar recently. They did have contract farming with nearby farmers. However, since farmers did not adhere to quality, buyers went back to local

markets to buy wholesale vegetables to sell at malls. Quality output is an issue that may be resolved through integrated training.

Government Interventions for marketing: Regarding Doubling Farmers' Income, the Comprehensive Policy Recommendations of the Ashok Dalwai Committee, the 45th recommendation states that "States must develop FPOs / VPOs / Cooperatives that could integrate their production with the demand of the processing industry, thereby supporting the industry as well as bringing an assured market to the farmers". This will reduce the wastage of goods that are not immediately linked to consumers while recovering value from the output. The Model Contract Farming & Services Act, 2018 could be implemented to facilitate such an integration. In this context, the state could try to identify what it might engage in and what it could leave to private entities. For instance, state agencies could play an active role in the development of model FPOs for member retention. Furthermore, if a private investment went through model contracts or the farming act, the state could intervene so that it would not cheat or initiate a bad deal with the farming community. State-level macro-planning could determine which investment or company should enter under which state-related agro-climatic zone.

The government of Odisha had leased out many of its cold storages to private operators. In the case of vegetable procurement, instead of building more cold storage facilities, the government could act as an agent/aggregator for these private operators. This will be similar to the set-up already in force for paddy, where the government acted as an agent to the Food Corporation of India or PDS.

The Contract Act was enforced in Odisha and was operational. Here, PACS could act as an aggregator. However, a higher agency - either private sector or public – is required to buy the

product and provide requisite services or infrastructure. Without aggregation, it is a challenge to manage at the co-operative level.

In addition to the PACS infrastructure, GrAMs (Gramin Agricultural Markets) could be set up as recommended in the DFI report. This could be a hub and spoke model with the PACS. It would require some investment to flow through multiple kitties, as mentioned in the report, including the APMC kitty.

Scope for Contract Farming in Fisheries Co-operatives: The second largest number of co-operatives in Odisha is in the fisheries' sector, although there is no systematic approach in terms of reaching out to this sector. Moreover, these cooperatives are not aware of the Contract Act.

Scope for Cost Reduction in Dairy Sector: In Odisha, fodder and feeding cost is a significant input cost for dairy farmers. Introducing silage as a fodder will improve nutrient intake and, hence, milk productivity of Odisha's milch animals.

Also, the percentage of cross-breed animals is on the rise in Odisha. Cattle-rearing traditionally means leaving animals on vacant land for grazing. But now, the cross-breed rearing process needs to change.

From a waste management perspective, Odisha could explore a flexible biogas plant model for the effective use and management of cow dung. Let us suppose that a cow generates 30 kg of cow dung that was used in a biogas plant. The 30 kg of cow dung was sufficient to produce gas for two cooking gas cylinders of 29 kg with a market cost of Rs. 1500. In addition, slurry was also obtained as a by-product. The farmer could use the slurry as farm manure and sell the extra slurry to a co-operative. While cattle produce milk for 9-10 months, the slurry is available year round and can be a good source of value addition, at about Rs. 2 per kg of slurry.

Infrastructure for ensuring quality: The Odisha Government initiated a proposal for state laboratory with a network in different districts and sub-divisional levels for quality testing, standardisation, and grading. But this has been pending without clarity regarding current status.

eNAM has already been implemented in ten RMCs. However, except for one in Sakhigopal for coconuts, the rest are not working. While assaying is a pre-condition, appropriate facilities are missing. While the RMCs had adequate funds for quality testing, they remained unutilised.

Conclusion by Moderator

Of the 8.5 lakh co-operatives in India, 17,330 are located in Odisha, of which 85% happen to be non-credit cooperatives. Only one of them is a marketing co-operative. The entire discussion was centred on a strong need for marketing infrastructure. With just one marketing co-operative in place, there is a long way to go.

There are 5588 dairy co-operatives in Odisha, about 2,000 livestock co-operatives, and 1,086 agricultural and fisheries' co-operatives. These are the right sectors for the doubling of farmers' incomes, according to the Dalwai Committee report. Odisha also has some 1300 handloom co-operatives with major branding, marketing and copyright challenges.

Odisha has no agribusiness co-operatives, however. The state could focus on setting up agribusiness co-operatives. Infrastructure for input services, along with value-added and price fluctuation mitigation measures are also urgently needed.

The district-level Panchayat could help could help build consensus and support plans from the agriculture sector. The proposals could be assessed by means of the block-level committee, the district-level co-ordination committee and, finally, the state-level co-ordination committee.

The state of Odisha could leverage some promising government schemes for the related sector and agriculture. Having established an extension infrastructure such as KVKs, it is necessary to see whether KVK scientists are coming to provide the entire gamut of state services. It is necessary to see whether there is a symbiotic relationship between state-level extension machinery and the KVKs.

7. THEME 4: GOVERNMENT STRATEGIES AND POLICIES FOR ENABLING DFI

Session Chair: Smt Gayatri Patnaik / Prof SR Asokan

Theme Moderators: Prof. Uday S. Saha

Rapporteur: Shri Yashobanta Parida

Introduction

With the aim of doubling farmers' income, government strategies and policies need to be viewed from two standpoints – 1) Co-operative Act and rules; and 2) Development schemes and policies. It is important to deliberate on how these two strategy frameworks could converge to benefit the farmers and enable DFI.

Key Discussion Points

Planning and Targeting: Despite 60% of Odisha's agricultural workforce comprising shareholders, PACS does not represent their interests. This is because they could not be registered as PACS members due to the Odisha Land Reforms Act provisions that do not recognise sharecropping as an official term. In fact, much of the land in Odisha is owned by one set of people (landowners) but cultivated by another (sharecroppers). Sharecroppers incur all agricultural expenses, whether seeds or fertilisers. Also, in the event of calamities, they suffer the most as they are not covered by crop insurance. A suggestion was made to mobilise shareholder members into 4-5 Joint Liability Groups (JLGs) and enable JLG membership as PACS members, to protect their interests. to protect their interests.

Similarly, the OLR Act does not permit leasing out of land in the case of tenant farmers expect for special categories like military personnel, disabled persons, and widows. The state has, however, been successful in officially recognising Self-Help Groups (SHGs) and Tenant Farmer

Groups (TFGs) as PACS member **groups**, providing them with access to credit and other services. The group could select a member to represent the PACS group and adopt a resolution. The representative member could transact and cast a vote on behalf of the group.

Targetting the right farmers as beneficiaries of government development interventions may also be achieved through micro-level planning. In line with the PRI legislation, every village could come up with a village development plan, merging into a block development plan and at the district and state levels. The governance framework could incentivise local-level planning with outcome-based rewards and flexible funding sanctions for those districts. In addition, bottom-up planning could come with accountability at every level and for every outcome.

Creating Awareness: Many Odisha farmers are worried that linking Aadhar cards with PACS accounts might result in Aadhar cards' being cancelled when selling paddy and other commodities through PACS. Such fears and rumours may be dispelled through regular awareness programmes. That the school curriculum needed to offer a course on agriculture and co-operation was also discussed.

Monitoring Outcomes and Impact: To ensure accountability at block and district levels, it is essential to monitor development interventions through different indicators. Indicators of output, outcome and impact for each programme or intervention could be designed at each level of the hierarchy.

Institutional and Policy Convergence: The channels or mechanisms for implementing government policies and interventions could converge with nodal institutions or have a hub and spoke model of implementation in place. Moreover, schemes and programmes with similar or overlapping objectives could converge to yield more effective outputs, outcomes, and impact.

The unit of development and the persons accountable could also be determined.

Concluding Remarks of Moderator:

Various DFI models from neighbouring states were discussed, based on practical situations. No single activity resulted in farmers' incomes doubling. **Intensive farming needs to be integrated** with field crops, agriculture, horticulture, dairy, and fisheries. Plus, wherever income increases are needed, things like **poultry, vermicomposting and hydroponics** could be introduced. Integrated farming could help farmers not only double but increase their incomes 4-5 times a year. In the next three years, in Odisha, the best model could be chosen depending on the agro-climatic region. If this model is to be successfully implemented, it is necessary to decide **approaches should be adopted. Group approaches** like SHG, JLG, cooperatives, tenant groups, farmer's group could be initiated.

Another point discussed was the immediate establishment of a model in a **strategic area** where it is possible to move quickly, on the basis of either the **agro-climatic region or the aspirational districts** that have already been identified.

State co-operatives need to **facilitate both backward and forward linkages** so that the farmers get their worth. Alongside **processing, marketing, and marketing facilities** should be created for different activities.

One of the points discussed was also that **quality inputs should be provided on a regular and continuous basis**. At times, quality inputs are provided to farmers in the first year, but not subsequently. This could be facilitated by the government for various purposes.

As far as policies are concerned, the **convergence of functions** was important, for which the existing technology transfer system mechanism could be utilised. A supplementary mechanism should also be in place to reach the villagers and the farmers directly.

In legal terms, it was discussed that sharecroppers and tenants were not part of **PSES** either. The **act could be amended** in such a way that sharecroppers, tenants, and the JLG could form part of the PSES. Women farmers also needed to be recognised. This is not only necessary for widows but also for women owning complete farms.

From the DFI policy and strategy standpoint, **micro-level planning is** important. Micro-level planning should take place at the village and block levels and finally, at the district level.

A system of **monitoring, evaluation, and in-depth accountability** should be built-in with the district at the centre.

8. VALEDICTION PANEL DISCUSSION

The concluding panel had **Dr M Muthukumar**, IAS, **Director**, Directorate of Agriculture and Food Production, Odisha; **Shri BB Patnaik**, IAS, Registrar Cooperative Societies (RCS), Government of Odisha; **Shri Debendra Kumar Jena**, IAS, Managing Director, Odisha State Cooperative Bank (OSCB); and **Prof Harekrishna Misra**, Chair, VKCoE - IRMA.

Concluding Remarks of Dr M Muthukumar:

Challenges facing Agriculture in Odisha: Shri Muthukumar outlined Odisha's current agricultural status. He said that the younger generation was moving away from agriculture. In addition, every stage of agriculture was full of risks from farming and production to post-production activities. He said He said agricultural landholding sizes were decreasing steadily. The average farm holding had reduced from 1.5 hectares to 0.98 hectares. The number of small and marginal holders had increased from 46 lakhs to 48 lakhs. The availability of land had decreased due to land fragmentation, urbanisation, and industrialisation. While there were plenty of challenges in agriculture on the road to DFI, the Government of Odisha was continuously evolving the agriculture policy, notably in 2008, 2013, and 2019. The policies evolved from production-orientation to farmer-orientation. Therefore, co-operative societies played a predominant role at the grassroots level.

PACS as a one-point solution: Dr Muthukumar shared that one of the policy ideas for farmers in Odisha was to reduce the dependence on intermediaries like traders and dealers, and make PACS the single point for input availability (seeds, fertilisers) and product procurement. He said that the government was focussed on making co-operative societies a one-point solution for production, productivity, and marketing.

Scope for value addition in tomatoes: Dr. Muthukumar highlighted significant value-added opportunities for vegetables such as tomatoes in Odisha. He said that with basic primary processing, including the scraping of the outer membrane, tomato pulp could be preserved in cold storage and could be further processed into a variety of by-products including ketchup. He added that innovative ideas like the mobile vehicle for tomato processing could be replicated in Odisha, for the benefit of farmers.

Cluster Development Policy Approach: In Odisha, 3-4 agricultural schemes have been initiated through the cluster development approach. Marketable surplus has been observed as higher, leading to more buyers.

One such scheme was the **Paramparagat Krishi Vikas Yojana**, an organic farming programme implemented with the support of the Government of India. The scheme has already been implemented in 720 clusters in 12 districts of Odisha. This year, it will be implemented in another 520 clusters. Every cluster caters to approximately 50 hectares of organic farming.

Another such scheme is the **Odisha Millet Mission**, which has already been implemented in 13 districts. Last year, approximately 6000 hectares were covered under the programme, while this year 15,000 hectares were planned.

Another essential cluster-based scheme involves horticulture, in conjunction with **the NGO Pradan. Agriculture Production Clusters (APCs)** in 40 tribal blocks have been covered from production to marketing. Each block is assigned to an NGO, which selects one community organisation at the GP level.

Recently, the **Organic Farming policy** had also been developed in Odisha with a five-year plan, to provide more than 2 lakh hectares under organic farming at the end of five years.

The conflict between different formats of Collectives: Dr. Muthukumar shared his concern for and the administration of the numerous collectives including co-operatives, FPOs, and SHGs for all the departments concerned. He noted that there were several co-operative societies on the one hand while the government was preparing to incubate 2000 FPOs on the other. He proposed putting these diverse group structures through constructive competition as the best way forward.

Concluding Remarks of Prof Harekrishna Misra

Prof Harekrishna summarised the theme discussions that had taken place over the course of the two-day workshop:

1) Theme 1: Governance, Leadership and Human Resource in Co-operatives for enabling DFI

Deliberations converged towards **participation, transparency, accountability, and anticipation in co-operatives**. It was observed that co-operative members had to **converge with the philosophy of co-operation**.

They needed to **be made aware of their member rights and responsibilities, why they should be part of the co-operation**, about the various forms of co-operatives; sharing contribution in membership enrolment, and **co-operative governance and its role**. It was decided that the **member was the basic building block** of the co-operative structure. This awareness-building needs to be a continuous process, not a one-time effort.

It was important to review the **eligibility, continuity, and also the succession** of members. That governance should not be “selectively elected’ by a few prominent, dominant individuals was also discussed.

These membership features needed to be built into the co-operative membership regulatory framework to be incorporated in the Co-operative Act.

Capacity building exercises on how to form co-operatives also needed to be undertaken.

The difference between members and non-members, and active members and non-active members, need to be clarified in order to allow use of the co-operative resources.

Theme 2: Member Centrality in Co-operatives for enabling DFI

Despite the availability of products like KCC loan through PACS, farmers prefer MFIs and Mahajans for credit. Incentivising good borrowers could be a way of retaining members and increasing co-operative member transactions. Also, PACS could become Business Correspondents (BCs) to banks to improve outreach. That other cooperative services were also not reaching the targeted members was discussed.

It was noted that co-operative governance was centred around a few influential members. It is important to understand the optimum size of the governing board and member base of a co-operative. Studies on this theme could be explored.

Farmers believe that being a co-operative member is the same as being a beneficiary of a government scheme. Member mindsets need to be transformed to that of owners and users instead of beneficiaries, by breaking this “beneficiary syndrome”.

Moreover, farmers do not understand the importance of the Re. 50 membership fee that makes them eligible for voting.

Training, development, and sensitisation of members of co-operatives are required to make farmers aware of their rights as owners and users of the co-operative. Besides, an assessment is required to understand why members drift away from co-operatives.

3) Theme 3: Infrastructure, Services and Convergence of Ecosystem for enabling DFI

It was decided that a farmer database was required. The house recognised the efforts made in this direction by developing the **database interface for Odisha's "SAKHYAM" e-governance application.**

A mechanism was required for **recording and tracing transactions of co-operative members,** both banking and non-banking transactions. **A real-time dashboard** is necessary so that banking and non-banking transactions can be separated and the portfolio of transactions can be displayed.

There is a clear need to **transform the entire infrastructure and services of the cooperative system. Technology must be implemented by** professionalisation. A transition from **production-orientation to market-orientation,** through the creation of effective value chains, is required. The discussion also touched upon the **failure of contract farming and its challenges.**

Exposure visits were required for co-operative members to understand and learn from the **best practices** and for transforming mindsets. The Amalsad Chikoo Co-operative, Gambhira and Amul were cited as some of the best practices in the co-operative ecosystem, worth learning from.

One of the challenges that emerged was in the area of **logistics.** **eNAM** had been piloted in ten districts of Odisha. When digital auctions occur, physically moving items is a big obstacle. It is necessary, through eNAM, **to ensure that the execution of the contract is taken care of and that the interests of the members are secured.** Accounting for refunds or refusals is also a significant factor.

Efforts to set up **agribusiness co-operatives** in Odisha were discussed. Also that agricultural startups require pilots and incubation centres.4)

Theme 4: Government Strategies and Policies for enabling DFI

There is neither a database nor development schemes for landless farmers in Odisha. With landless farmers accounting for a large percentage of farmers in Odisha, this challenge needs to be addressed.

The co-operative structure excludes a large number of farmers who may profit most from the co-operative, in particular sharecroppers, tenant farmers, landless farmers, and women. The Tenancy Act and, consequently, the Co-operative Act should be revised, taking into account the interests of tenant farmers and their incorporation as members of co-operatives. JLGs could be included as members of PACS, as is the case with SHGs. Tenant farmers and sharecroppers could be included as co-operative members through JLGs.

Further, the unavailability of logistical support for monitoring by the government was highlighted. It was recommended that independent authorities take up the monitoring and evaluation of schemes.

It was also agreed that there was a need to recommend a convergence policy of government schemes to avoid duplication and improve impact. The 120 schemes offered by the central government could be reduced to 70. Integrated farming may be promoted as a method of putting together subsistence systems for farmers. The state government could start convergence with Aspirational districts. Micro-planning at the Gram Panchayat level, block level and district level could be incentivised. Outcome-based monitoring of schemes is also required.

From the standpoint of financial schemes for farmers, the effective rollout of crop insurance schemes needs to be addressed. Besides, the youth need to be covered under a lender policy for entrepreneurship purposes. Rumours need to be dispelled through proper awareness programmes- for example, farmers seem hesitant to link their Aadhaar to bank accounts in the fear that it could lead to losing government subsidies.

That agriculture and co-operation must be included in the curriculum of primary and secondary schools to create awareness and understanding at an early stage was also discussed.

It was noted that if the Department of Co-operation addressed its acute staff deficit, the problems mentioned above could be resolved.

Concluding Remarks of Shri Debendra Kumar Jena

Need for Professionalisation in Co-operatives: He noted that while market orientation was essential to improve the plight of farmers through cooperatives, professionalisation was the first priority. He stressed the need to add experts to the board, for the administration and the day-to-day operation of the organisation. He added that a strong balance between professionalisation and democratic governance was required for a co-operative to operate effectively and succeed on the market.

Concluding Remarks of Shri BB Patnaik:

Shri Patnaik summed up by saying that the DFI's responsibilities rest not only with co-operatives, but also a needed **multi-sectoral approach**. He observed that the leadership of co-operative societies in Odisha was still secretary-based and that only by raising awareness among members about their position in the co-operative could this change. He noted that some of the amendments in the Cooperative Act laws and regulations were on the anvil.

Shri Patnaik emphasised the need to diversify crops and reduced reliance on a single crop, namely paddy. Farmers could also carry out related operations like fisheries, animal husbandry, and backyard poultry.

His last argument was that the farmer had become a captive trader, selling his produce only to the *Mahajans*. He emphasised that the primary aim of those concerned should be to free farmers from the intermediaries' clutches.

The Way Forward

8.1. Policy Inputs

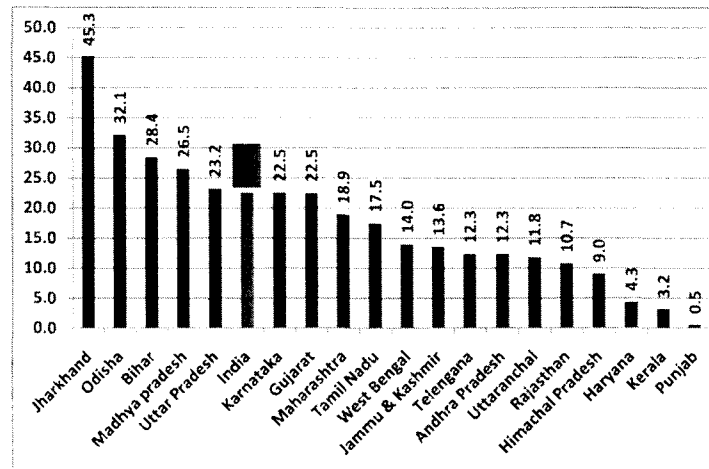
This section outlines the policy inputs laid down by the Central Government's NITI Aayog as well as the policy recommendations of Dr Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Higher Education and Shri Ranendra Pratap Swain, Honourable Minister of Co-operation, Government of Odisha. It also highlights the key policy perspectives advanced by officials from the Government of Odisha.

8.1.1. Inputs from NITI Aayog's Report on Doubling Farmers' Income

The earlier strategy of the Government of India for the development of the agriculture sector focussed on increasing agricultural production and improving food security. This strategy involved 1) increasing crop productivity through better technology and inputs, 2) remunerative prices and subsidies for crops, 3) public investments in and for agriculture, and 4) facilitating institutions (Chand 2017).

While this strategy yielded good results for India's food production, it did not focus on the producer, i.e., the farmer. The strategy did not explicitly recognise the need to raise farmers' income and did not mention any direct measure to improve farmers' welfare. While, in some cases, the growth in output stimulated a rise in the farmer's income, in many cases, it did not grow much despite increased output. The NSSO data on Consumption Expenditure Survey 2011-12 shows that more than one-fifth of farm households (rural households with self-employment in agriculture as their principal occupation) had incomes less than the poverty line. The second highest incidence was observed in Odisha where 32.1% of farm households were below the poverty line (Chand 2017).

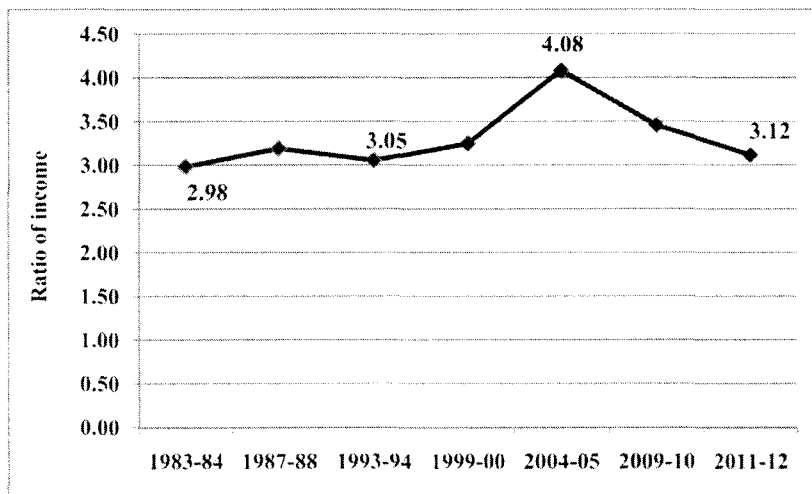
Figure 3 Farm Households with Income below the poverty line, 2011-12



Source: *Estimated from unit level Consumption Expenditure Survey Data 2011-12, NSSO*

Farmers' incomes also remained low compared to the incomes of those working in the non-farm sector.

Figure 4 Ratio of Income of non-agricultural worker to income per cultivator



Source: *Chand 2017*

Low levels of absolute income and increasing disparity between the incomes of a farmer and non-agricultural worker constitute important reasons for the emergence of agrarian distress in India. Realising the need to focus on the plight of farmers, the Central government set the goal to double

farmers' income by 2022-23 to promote farmers' welfare, reduce agrarian distress, and introduce parity between the income of farmers and non-agricultural workers (Chand 2017).

Strong measures are needed to harness all possible sources of growth in farmers' income within as well as outside the agricultural sector. The committee identified seven major sources of growth to increase income. They were: i) Improvement in crop productivity; ii) Improvement in livestock productivity; iii) Resource use efficiency or saving cost of production; iv) Increase in cropping intensity; v) Diversification towards higher value crops; vi) Improvement in real prices received by the farmer; and vii) Shift from farm to non-farm occupations (Chand 2017).

As part of the Roadmap and Action Plan for doubling farmers' income, Chand 2017 emphasises the need for co-ordination and involvement of the states and UTs as an important step towards doubling farmers' incomes.

Co-operatives could play a significant role in six of the seven factors impacting the farm household income. There are water co-operatives/water users' associations in many states, including Odisha, which have increased resource use efficiency. Co-operatives also supply fertilisers. If all co-operatives sell seeds and fertilisers, the farmers can acquire quality inputs at reasonable prices, thus reducing the overall cost of production. The government promotes custom hiring centres for farm machinery. Co-operatives can open such centres and help the farmers conduct farm operations on time, contributing to increased productivity. However, we are confined to agricultural marketing, which is a low hanging fruit.

A large number of farmers in India are members of collectives including co-operatives, farmer producer companies and SHGs. Farmers' collectives, especially those involved in high-value agricultural and allied products, have a substantially large role to play in achieving the specified

goal of doubling the income of the farmers. The co-operatives have been evolving under the influence of various elements. These elements need to be calibrated and optimised according to the requirements in order to solve the present-day challenges of various co-operatives at large and agricultural in particular.

Co-operatives in India function in different sectors and face diverse problems. The situation is further complicated by the fact that co-operatives are a state subject under the Constitution of India and state co-operative laws and their implementation differ vastly. Co-operatives are the best channels to keep the spirit of collectivism and democracy afloat. The presence of a large network of social organisations, like co-operatives, could aid the generation and utilisation of social capital and 'greater the social capital greater would be the possibility of development'. Therefore, co-operatives can play a futuristic role in terms of fostering collectivism and preserving the social capital base of the country. It is thus clear that co-operatives have a significant role to play in the future setting of our economy. In fact, they have a more important role to play in the future compared to their agency role of the past.

8.1.2. Policy inputs shared by Shri Ranendra Pratap Swain, Honourable Minister of Co-operation, Government of Odisha

- Doubling farmers' income in Odisha requires both Co-operation and Agriculture departments to work in convergence.
- DFI needs to be addressed keeping in mind the alarming levels of agrarian distress in India today, especially with regard to resource scarcity, rainfall uncertainty, price volatility, and strong influence of intermediaries on farmers.
- The success of PACS in procurement of paddy needs to be leveraged to integrate thousands of small and marginal farmers and women farmers with the agricultural supply chain.

- Odisha has a wasteland of 9.3 lakh hectares. If Odisha has to double the farmers' income, there is a need to reclaim the wasteland.
- About 38% of Odisha's population consists of Adivasis and Dalits who depend mainly on forest produce. Odisha's forest cover is 36% which is above the national average. While it is important to see how co-operatives are working in the hinterlands, the forest should also find a place in the discourse.
- Odisha has been harnessing only 8% of its groundwater. Shri Swain highlighted that Odisha had 2330 sq. m. of groundwater.
- It is important to keep in mind that the global markets are down because of which there is rampant unemployment. Odisha should be dealt with from a different perspective because Adivasis and Dalits constitute nearly 40% of the state's population. Their employment and doubling of incomes should be the prime focus for maintaining our GDP growth.

8.1.3. Policy inputs shared by Arun Kumar Sahoo, Honourable Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Higher Education

- Approximately 38% per cent of Odisha's land is covered in forest and has the ability to increase farmers' incomes. Around 23% of the population of Odisha belong to the tribes. The population of SC and ST is more than 40 % of the total population of the state. For their survival, many people depend on the forest. These peculiar facets of Odisha need to be discussed. The growth in per capita income is partly attributed to women's participation. This was possible due to the KALIA scheme, which also helped increase farmers' income in Odisha. KALIA funding has helped more farmers make use of crop insurance by paying the insurance premium. It is necessary to make full use of the KALIA Scheme for DFI.
- In Odisha, the co-operative banks support farmers to a greater extent, accounting for 80% of overall funding for farmers as opposed to nationalised exchange banks. The nationalised banks

do not provide farmers in Odisha with sufficient credit. Steps are required to increase the participation of nationalised commercial banks in order to double the farmers' incomes. Case studies are important to help understand the issue. In addition, insufficient deposits exist for co-operative banks in Odisha, and funding from the Department of Co-operation is required in order to resolve this problem.

- Farmers sold in wholesale but bought in retail. When recession strikes, farmers are the most impacted, first and foremost. It is important to research how farmers' incomes can be doubled, tripled, or multiplied. It is also important to research how their buying ability can be improved. For if the farmer has money, he can buy products of quality for his life and livelihood.
- Changes are urgently needed in the Cooperative Act, which has turned old and obsolete. The changes may be tabled in the December assembly session, there being an urgent need to streamline co-operative processes and mechanisms.
- Lastly, it is important to apply the 5T mantra, which is popular among state government officers and requires percolation to the ground level. Four of the Ts are - Teamwork, Technology, Transparency and Time. These can lead to the fifth T - Transformation. These 5 Ts, as advised by the Honourable Chief Minister, are important for the state to transform into a developed state.

8.2. Implementation Strategy Inputs

This section outlines the implementation strategy inputs provided by senior officials of the Agriculture as well as Co-operation departments. A global co-operative perspective was provided by Shri Balasubramanian (Balu) Iyer, Regional Director, ICA-AP.

8.2.1. Strategy Inputs from Dr. M. Muthu Kumar, IAS, Director, Directorate of Agriculture and Food Production, Odisha

- It is important to reduce the dependence of Odisha farmers on intermediaries like traders and dealers and make PACS the single point for input availability (seeds, fertilisers) and procurement of produce. The Odisha government is focussed on turning co-operative societies into one-point solution spots for production, productivity, and marketing.
- There is considerable potential for value addition for vegetables like tomatoes in Odisha. Dr. Muthu Kumar said that using basic primary processing, like removing the outer skin, tomato pulp could be placed in cold storage and further processed into several by-products including ketchup. Innovative ideas like the mobile vehicle for tomato processing could be replicated in Odisha, for the benefit of farmers.
- Some three to four schemes have been implemented in Odisha, through the cluster development approach. It has been found through the cluster approach that marketable surplus is greater, leading to more buyers. Some of the schemes implemented through the cluster development approach include Paramparagat Krishi Vikas Yojana, Odisha Millet Mission, and a horticultural scheme in convergence with PRADAN.
- The conflict in managing different types of collectives such as co-operatives, FPOs, and SHGs remains a big challenge for all the departments involved. On one hand, there are many co-operative societies, and on the other, the government plans to incubate 2000 FPOs. Introducing healthy competition between these various collective formats would be the right way forward.
- Though there are many challenges facing agriculture on the path to DFI, the Government of Odisha has been continuously developing its agriculture strategy, notably in 2008, 2013 and 2019. The policies evolved from production-orientation to farmer-orientation. The co-operative societies at the grassroots level have played a prominent role.

8.2.2. Strategy inputs from the Department of Co-operation

- PACS in Odisha play an instrumental role in providing paddy procurement services for farmers, expanding the MSP regime to the grassroots level, and starting the Price Support Scheme for millets, oilseeds and groundnut. Millions of farmers purchase seeds and fertilisers through PACS. PACS need to be harnessed to their full potential for DFI in Odisha.
- Landless farmers are among the main members of Odisha's farming community. Owning land was necessary to avail most services in the agricultural cooperative system in Odisha, be it cooperative membership or KCC and other loans. As a result, landless farmers were effectively excluded from accessing services through agricultural cooperatives. To address this gap, the Odisha government made a provision to include landless farmers and tenant farmers in the Cooperative Act membership clause in 2011. Farmers who were engaged in agriculture, but did not have land in their name, could now form groups such as Joint Liability Groups (JLGs) / Tenant Farmer Groups (TFGs). The JLGs / SHGs / TFGs could become voting members in PACS, giving them representation and decision-making powers in the latter, as well as access to KCC and other loans. This co-operative legislation should also be extended to sharecroppers and women farmers.
- According to the recommendations of the Vaidyanathan Committee report, depositors should be given due importance in a co-operative, so that unless one makes a deposit, one cannot become a voting member of a co-operative. Due to this development, the membership size of JLGs / SHGs / TFGs in co-operatives has increased.
- Eighty per cent of the PACS business involves credit services while the remaining 20% includes services such as fertilisers, seeds, and consumer goods. Most of the credit goes into financing paddy crop for farmers. Paddy is mostly a subsistence crop with poor commercial

returns, which naturally impacts recovery. This means that much of the credit business of PACS is unviable.

- Realising the heavy emphasis on paddy, the government decided to pay attention to other crops, i.e. oilseeds and pulses. To sustain this grain-based procurement and marketing, the government increased the number of go-downs, and Odisha has built around 3 lakh MT storage space over the past five years. However, Odisha did not have adequate infrastructure for horticulture produce like vegetables.
- Odisha has a very inclusive cooperative membership base - small farmers, marginal farmers, landless farmers, tenant farmers – are all part of the cooperative system. However, the organisational capacity to deliver services is as weak and needs to be addressed.
- In Odisha, there is a need for organised marketing across not just MSP crops, but others as well. A strong need has also been felt for addressing marketing gaps like grading, standardisation, infrastructure, arranging suppliers, and professional management. These gaps lead to distress sales and, hence, low incomes in non-MSP crops. Structural issues in agricultural credit also need to be addressed including indebtedness and poor recovery.

8.2.3. Strategy Inputs from Shri Balu Iyer, Regional Director, ICA-AP

- The co-operative movement has a long tradition of 125 years of adherence to certain basic co-operative values. Among them, the role of Principle 5 in education, training, and information is essential. There is a need to foster awareness of the co-operatives and the type of work they do in the younger generation (who will look after the co-operatives in the future).
- Another essential co-operative principle is Principle 6 – Co-operation between co-operatives. In addition, ICA and co-operatives face common obstacles. Co-operatives need to work together in order to grow and support each other. In addition, various co-operatives need to

leave their silos and communicate with each other while building capacities of their members in the process.

- Sustainable Development Goals (SDGs) could be used to promote the work of co-operatives; this is because in almost all the 17 SDGs (poverty, hunger, education, health, sustainable communities, partnership, and climate change) co-operatives have been involved.
- The impact of climate change on agricultural production and farmers' incomes should also be addressed. When discussing DFI, we should also concentrate on making our agricultural practices and development processes more robust. Similarly, simply concentrating on development is not enough; we still need to focus on reducing food waste. The goal should be to make agriculture more systematic and sustainable.
- As far as governance, leadership, human resource is concerned, there is a need to engage more women and youth in co-operatives.
- On the subject of member centrality, lack of data concerning co-operatives (members, business, etc.) makes it very difficult to monitor performance and development parameters. It is essential to leverage technology and integrate it with the functioning of co-operatives.
- Regarding infrastructure and ecosystem, one must take due cognisance of waste management and how income from waste could add to DFI.
- Innovative co-operatives from various areas of the South Pacific region may be emulated. A strategy dubbed 'cradle to grave' is practised in Japan. According to this co-operative model, the member remains at the centre, while the co-operative works to deliver all the products and services required by the members. The agricultural co-operative, thus, offers not only resources, but also technological guidance on how to carry out various agricultural operations, credit for conducting these operations, and the production and selling of goods. Around the

same time, they also provide ancillary services related to health, insurance, education etc. to the members. Thus, they take care of their members throughout life.

8.2.4. Strategy Inputs from Dr KK Tripathy, IES, Director, Vaikunth Mehta National Institute of Cooperative Management (VAMNICOM)

- First and foremost, capacity building is needed for various co-operative institutions, especially government functionaries who manage these institutions.
- Reforms need to be introduced, both at policy and operational levels, for which both co-operative and non co-operative training institutes need to engage.
- Training-need analysis needs to be done to arrive at realistic training requirements and policies.
- Customised training calendar and content needs to be developed, keeping in mind the needs of the changing business environment. For example, in the case of doubling farmers' income, training themes could include how to shift production orientation to livelihood, how to open our agri-markets to competition, and how to provide better marketing infrastructure.
- Adequate training infrastructure also needs to be provided in terms of computers, projectors, and some of the hardware facilities in various CTIs.
- Availability of training material in the vernacular language is a must.
- The use of IT and e-learning platforms should be augmented so that effective training by experts can reach a larger number of co-operatives.
- Training of co-operative leaders and higher bureaucrats is another must. The experience of co-operative leaders should be considered while designing training programmes for them.
- Training is required on latest issues like new laws, technology, innovation, and policy changes. Training regarding the use of the latest technology should be imparted to employees, especially those from rural backgrounds.

- The performance of good co-operatives should be documented as case studies to be used as references during various training programmes.
- Importance should be given to professionalising the functioning of co-operatives. Roles and responsibilities' matrices should be drawn in consultation with various agencies in the field. For stakeholders of the CTIs, SWOT analysis should be done. The core competency of CTIs should be developed so that CTIs are able to view their role in a more scientific, vigorous and persistent manner, making them more effective (including cost-effective).
- Research and development for the co-operative sector are essential. Data needs to be collected and collated from the grassroots via technology-based e-solutions. There should be a scientific research and policy cell in each state union for developing relevant knowledge material.
- There is a need to engage in action research where VAMNICOM, Ministry of Agriculture and IRMA could chip in. Action research could be conducted in the aspirational districts by adopting a co-operative, developing a business plan for the co-operative (samples could be drawn from those co-operatives in agriculture and agri-business sectors), drawing their capacity building plans, helping them grow, and having an appropriate business development plan in place.

8.3. Recommendations

The Dalwai Committee Report of NITI Aayog strategically identified issues related to crop productivity, livestock productivity, resource use efficiency, cropping intensity and working towards high-value crops. It also emphasised the rise in market realisation and expanded exposure of farmers to non-farm occupations. It is also important to note that understanding the market, competition, seasonal variation, informal retail and wholesale, dynamic agent networks, unorganised inputs, and technology implements are some of the prominent challenges of the DFI

strategy. Major issues to be tackled on a priority basis are investments across the formal banking system, private sector participation, logistic networks, nurturing primary agricultural markets, and linking farmers (especially small and marginal). Another dimension that emerged in the workshop for quick implementation was finding ways of ensuring that input services and output of farm produce (food grains, perishables and non-food) were well taken care of by the policymakers and network partners. The following recommendations emerged at the end of the workshop, holding out the hope that governance and bureaucratic setup of the state of Odisha would take note of its vantage points and address critical issues facing farmers and farmers' collectives. The recommendations were classified as: 1) Market Linkage and Orientation; 2) Input Services; 3) Technology; 4) Training and Capacity Building; 5) Structural Orientation.

8.3.1. Market Linkage and Orientation

a. Innovation in product, processes, and services:

Income is primarily dependent on market identification, entry, retention of share and continuity. The farmer, either individually or collectively, needs adequate orientation towards these aspects of the market. Unfortunately, small and marginal farmers, struggling with livelihood challenges, have little time, cash flow, and scope to understand the market and pursue production systems. During the workshop, it was deliberated and recommended that the state government come up with an adequate funding strategy to take care of innovations and innovative ways to support farmers, create new pathways by introducing improved product portfolios, engendering knowledge for process re-engineering and access to innovative services on demand. In order to achieve this, it was recommended that an agency be created under the aegis of the government to look after this process.

b. Price discovery and pricing policy:

Price discovery is a mechanism that is nurtured by an ecosystem supported through the policies of the government. It is also supported by the market that adapts to the dynamic behaviour of lifecycles of product and services. Price discovery involves a suitable and knowledgeable technology infrastructure to access the database and evaluate data points on which the market is usually focussed. In the workshop it was discussed and suggested that the government create a mechanism with the support of private, public and producer organisations, consulting agencies (global, national and local), and academic and research institutions that come together for periodic price discovery and provide advisory services to the government (predictive, forward, commodities and derivatives). This could help the government to declare MSP.

c. Go-to-market strategy:

Go-to-market is a process that determines the barriers related to entry, retention, and exit. This is important for any generic business and, hence, the farm sector and farmers are not free of related challenges. The most significant challenges identified by the workshop were as follows:

i) Market reach – This challenges the farmer or the farmer organisations to manage their own livelihoods during the start-up phase. This is one of the entry barriers, with the cash flow mostly affecting the farmer. The government's workshop recommendations included defining pathways for start-up capital, access to low-cost resources, access to infrastructure and services. It also suggested that the exit of the farmer from failed attempts be compensated with due diligence.

ii) Input – Go-to-market challenges farmers in terms of access to factors of production, input services, lack of guidance for the use of new technologies, asymmetry in information market access for better and productive inputs like seed banks, fertilisers, and traditional agricultural inputs including cattle and animal health services. Another issue that came up in the workshop

included collectivisation of input marketing. It was proposed that the government implement a policy-supported system to boost the PACS and related systems.

iii) Technology – Doubling farmers’ income with a comprehensive roadmap for technology management is the correct approach for any state government since agriculture is a state subject. This involves careful networking between institutions like ATMA, KVK, agriculture universities, and private partners. Unfortunately, the expected outcomes have not yet been obtained with this networking. In the workshop, a holistic approach was proposed to educate farmer and farmer collectives to use contemporary farm technologies, to use predictive weather analysis, engage proactively in effective production and pricing processes, and use efficient methods to boost shelf-life and negotiate control. Also that technologies be used explicitly for quality assurance, farm health, energy management, and organic farming.

iv) Output –DFI’s strategy relies primarily on production costs and market capacity to absorb costs while maintaining fair competition. Hence, farmer and farmer collectives need to be equipped to handle their produce with better extension services related to commodity storage with improved shelf life, warehousing, aggregation logistics, and production market collectivisation. Establishing a supply chain with agent networks and minimising network overheads should also be managed with a policy mandate for which a roadmap should be established by the state government.

8.3.2. Input Services

In the workshop, it was deliberated and discussed that input services have become one of the major impediments to achieving DFI goals. In order to achieve DFI goals, the recommendations for organising input services included: (a) Productive use of decreasing landholding with the availability of micro-services, (b) collectivisation and convergence among the demand and supply of inputs required by farmers, (c) innovations in process, consumption, storage and access to seed,

breeding, demonstration farms, incubation of farms and services, followed by convergence among entities like KVK and ATMA for advisory services.

8.3.3. Technology

In the workshop, it was decided that technology would continue to play a significant role for the DFI. A concerted effort was required among supply chain agents, mainly government, private, R&D organisations and academic institutions, to ensure that the farmer and farmer collectives were encouraged to (a) acquire and use automated farm processes; (b) use climate-resilient production systems; (c) establish productive farm infrastructure and logistics; (d) to adopt quality-certified and productive technologies; (e) engage with value chains. In the workshop, the elements of the value chains were identified in the areas of cost optimisation, price realisation, traceability, agglomeration, and networks (lead organisation for the network with identification of a network development agent, cluster development agent, lead farmer organisations to act as the principal firm and support firm)

8.3.4. Training and Capacity Building

Chand 2017 presented a quantitative framework for doubling farmers' income identifying seven sources of growth – i) increase in productivity of crops; ii) increase in production of livestock; iii) improvement in the efficiency of input use (cost savings); iv) increase in crop intensity; v) diversification towards high value crops; vi) improved price realisation by farmers; and vii) shift of cultivators to non-farm jobs. During the workshop, the contribution of these seven factors in income growth, as per Chand 2017, were discussed in relation to the attention provided in the state of Odisha. It was discussed and noted that each of the seven factors contributed to the income growth as 33.6%, 14.8%, 11.4%, 3.6%, 13.6%, 6.3% and 2.5% respectively. Chand 2017 predicted that national-level increase in farm income would be 66.5% whereas Odisha expected it to be 85%.

In order to achieve this, it was found in the workshop that training and capacity building, especially in the following areas, were necessary conditions:

- First and foremost, capacity building was needed for various co-operative institutions, especially government functionaries who were managing these institutions.
- Reforms had to be introduced, both at policy and operational levels, for which both co-operative & non-co-operative training institutes had to be engaged.
- Training-need analysis needed to be done to arrive at realistic training criteria and policies.
- Customized training calendar & content needed to be developed, with the changing market climate in mind. For example, in the case of doubling farmers' income, training themes could include how to shift production orientation to livelihood, how to open our agri-markets to competition, and how to provide better marketing infrastructure.
- Adequate training infrastructure also needed to be provided, in terms of computers, projectors, and some hardware facilities in various CTIs.
- Availability of training material in the vernacular language cannot be emphasised enough.
- The use of IT and e-learning platforms could be augmented for effective training by experts to reach larger numbers of co-operatives.
- Another very important issue was the training of co-operative leaders and higher bureaucrats. Experience of the co-operative leaders needed to be considered while designing training programmes for them.
- Updated training was required on new laws, technology, innovation, and policy changes. Training on the use of the latest technology should be imparted to the employees, especially those coming from rural backgrounds.

- Performance of good co-operatives should be documented as case studies to be used as references during various training programmes.
- Importance should be given to professionalising the functioning of co-operatives. Roles and responsibilities' matrices should be drawn in consultation with various agencies in the field. For stakeholders of the CTIs, SWOT analysis should be done. The core competency of CTIs should be developed so that CTIs were able to view their role in a more scientific, vigorous and persistent manner, making them more effective (including cost-effective).
- Research and development for the co-operative sector. Data needed to be collected and collated from the grassroots level, using technology-based e-solutions. There should be a scientific research and policy cell in each state union for developing relevant knowledge material.
- There was a need to engage in action research where VAMNICOM, Ministry of Agriculture and IRMA could chip in. Action research could be conducted in the aspirational districts – by adopting a co-operative, developing a business plan for the cooperative (samples could be drawn from those co-operatives in agriculture and agri-business sectors), drawing their capacity building plan, helping them grow and set up an appropriate business development plan for these cooperatives.

8.3.5. Structural Orientation

Participants in the workshop were unanimous in suggesting that the DFI approach should concentrate on structural orientation to group behaviour. Group behaviour was one of the major strengths that a small and marginal farmer would look for, in order to aggregate homogeneous production factors (land, labour, capital, and input services). Participants found that farmers' group activities displayed power in formalised collectives like producer groups, co-operative societies including PACS, unions and federations, producer companies, and FPOs. While Self Help Groups

are not large enough in the farm sector, they hold the promise to provide additional non-farm income and should not be ignored. After due deliberation, the workshop that the state government co-ordinate its efforts by acknowledging the state's inherent strength to nurture collectives across fabrics of geography (intrinsic, traditional skill), clusters, businesses and, most importantly, social behaviour. While looking at the business profile, the state government should prepare a roadmap for cultivating an ecosystem to create an efficient and dynamic value chain with proper networking among banks, private business houses, government agencies for infrastructure and services, technology service providers, extension service providers, research institutions, and incubating agencies.

ANNEXURE 1: WORKSHOP AGENDA

Day One

Thursday, 29-08-2019

Time	Programme	Name of the Person/s
9:30 – 10:00	Registration	Team: VKCoE and RCS, Govt. of Odisha Compering Ms Shilpa Gole, VKCoE, IRMA
10:00 – 11:15	Inauguration	
10:00 – 10:05	Welcome Address	Shri B B Patnaik, IAS, The RCS Govt. of Odisha
10:05 – 10:15	Introduction to the workshop	Prof. H K Misra, Chair Professor, VKCoE
10:15 – 10:25	Opening Address	Shri Vir Vikram Yadav, IAS, The Secretary, Department of Cooperation, Govt. of Odisha
10:25 – 10:35	Opening Address	Prof. Hitesh V Bhatt, Director, IRMA
10:35 – 10:45	Opening Address	Shri Balasubramanian (Balu) Iyer, Regional Director, ICA-AP
10:45 – 10:55		Shri Akshyakumar Mohanty, President, OSCB
10:55 – 11:10	Special Address	Shri Ranendra Pratap Swain, Hon. Minister of Cooperation, Govt. of Odisha
11:10 – 11:25	Special Address	Chief Guest: Shri Arun Kumar Sahoo, Hon. Minister of Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Higher Education
	Vote of Thanks	Shri Debendra Kumar Jena, IAS, MD, Odisha State Cooperative Bank (OSCB)
<i>11:25 – 11:40</i>		<i>Tea Break</i>
11:40 – 13:30		Panel Discussion
	Compering and Introduction to Panel Members	Ms Shilpa Gole, VKCoE, IRMA
11:40 – 11:45	Moderator	Prof. H K Misra, VKCoE – IRMA
11:45 – 11:55	Overview of DFI with specific relation to Odisha	Prof. S R Asokan, IRMA
11:55 – 12:10	Introduction to Role of IRMA in Anand Pattern to foster Cooperative movement and Farmer income	Prof. Hitesh V Bhatt, Director, IRMA
12:10 – 12:20	Overview of Odisha's Cooperative ecosystem – Farmer Centrality	Dr Patanjali Tripathy, Department of Cooperation, Govt. of Odisha
12:20 – 12:30	Overview on Agriculture and Dairying in Odisha- Farmer income	Chairperson, OMFED
12:30 – 12:40	Cooperative Banking ecosystem in Odisha and DFI- Opportunities and challenges	Smt Gayatri Patnaik

Time	Programme	Name of the Person/s
12:40 – 12:50	Overview on Regional Cooperation for DFI in the context of policies, market and networks	Shri Balu Iyer, Regional Director, ICA-AP
12:50 – 13:00	Modelling successful farmer engagement/dairy entrepreneurship through Market Orientation in Gujarat – Role and Experience of GCMMF	Shri Manoranjan Pani, GM, GCMMF
13:00 – 13:10	Role of competence enhancement through research, training and capacity building in the co-operative sector for enabling DFI	Dr KK Tripathy, IES, Director, VAMNICOM
13:10 – 13:20	DFI: Policy Perspective	Sri Lav Bharadwaj, Niti Aayog
13:20 – 13:30	Audience interaction and Concluding Remarks	Prof. Harekrishna Misra, Ms Shilpa Gole
13:30 – 14:30		Lunch Break
14:30 – 17:30		Theme Exercise in Groups
14:30 – 14:40	Introduction to group exercise, Session Chair and Group Presenter	Prof. H K Misra, Chair Professor VKCoE – IRMA
14:40 – 15:45	Theme – 1: Governance and Leadership in Co-operatives: Enabling factors for DFI	Session Chair: Regional Director, ICA-AP, Theme Moderators: Prof. Sridhar Vishwanath / Prof. Harekrishna Misra, one nominated by Govt. of Odisha Rapporteur: Shri Mohit Dave and Dr Avinash Ghule
	Theme – 2: Infrastructure, Services and Ecosystem Convergence: Enabling factors for DFI	Session Chair: Dr K K Tripathy, IES, Director, VAMNICOM Theme Moderators: Prof. Shivshanker Singh Patel/ Prof. S R Asokan Rapporteur: Ms Shilpa Gole / one nominated by Govt. of Odisha
15:45 – 16:10	Tea Break	
16:10 – 17:30	Group Exercise	
17:30		End of day One

Day Two

Friday, 30-08-2019

Time	Programme	Name of the Person/s
14:30 – 17:30	Theme Exercise in Groups	
14:30 – 14:40	Introduction to group exercise, Session Chair and Group Presenter	Prof. H K Misra, Chair Professor VKCoE – IRMA
10:15 – 11:15	Theme – 3: Member Centrality: Enabling factors for DFI	Session Chair: Dr Patanjali Tripathy / Dr S Ghosh Theme Moderators: Prof. Saswata Biswas/ Prof. Harekrishna Misra, one nominated by Govt. of Odisha Rapporteur: Shri Lav Bhardwaj, one nominated by Govt. of Odisha
11:15 – 11:30		Tea Break
11:30 – 12:30	Theme – 4: Government Strategies and Policies: Enabling factors for DFI	Session Chair: Prof Asokan / Ms Gayatri Patnaik Theme Moderators: Prof. Uday S. Saha, One nominated by Govt. of Odisha Rapporteur: Shri Yashobanata Parida, One nominated by Govt. of Odisha
12:30 – 12:45	Presentation on e-Governance by Department of Cooperation, Government of Odisha	
12:45 – 13:30	Valediction	
13:30	End of day Two	

ANNEXURE 2: LIST OF WORKSHOP PARTICIPANTS

Sl. No.	Name	Designation	Organisation
1.	Shri Ranendra Pratap Swain	Hon'ble Minister, Food Supplies & Consumer Welfare, Cooperation	Government of Odisha
2.	Dr Arun Kumar Sahoo	Hon'ble Minister Agriculture & Farmers' Empowerment, Fisheries & Animal Resources Development, Higher Education	Government of Odisha
3.	Shri. Vir Vikram Yadav, IAS	The Commissioner -Cum- Secretary	Department of Cooperation, Government of Odisha
4.	Dr Tribrikram Pradhan, IAS	Additional Secretary	Excise Department, Government of Odisha
5.	Shri B. B. Patnaik, IAS	Registrar	Registrar of Cooperative Societies, Government of Odisha
6.	Smt Gayatri Patnaik	Deputy Director (Statistics)	Registrar of Cooperative Societies, Government of Odisha
7.	Shri Balasubramanian (Balu) Iyer	Regional Director	International Cooperative Alliance-Asia Pacific (ICA-AP)
8.	Dr KK Tripathi, IES	Director	VAMNICOM, Pune
9.	Shri Manoranjan Pani	Sr. General Manager (S&M)	GCMMF, Anand, Gujarat
10.	Shri Dhanraj Khatri	Manager, Cooperative Services	National Dairy Development Board, Bhubaneswar
11.	Prof. Hitesh V. Bhatt	Director	Institute of Rural Management, Anand
12.	Prof. Harekrishna Misra	VKCoE Chair Professor	Institute of Rural Management, Anand
13.	Prof. Saswata Biswas	Professor	Institute of Rural Management, Anand
14.	Prof. Sridhar Viswanath	Assistant Professor	Institute of Rural Management, Anand

Sl. No.	Name	Designation	Organisation
15.	Prof. Shivshanker Singh Patel	Assistant Professor	Institute of Rural Management, Anand
16.	Prof. Uday S Saha	RBI Chair Professor	Institute of Rural Management, Anand
17.	Prof. S R Asokan	Adjunct Professor	Institute of Rural Management, Anand
18.	Shri Mohit Dave	Programme Officer	International Cooperative Alliance-Asia Pacific (ICA-AP)
19.	Shri Lav Bhardwaj	Young Professional, DMEO	NITI Aayog
20.	Ms Shilpa Bhaskar	Manager Communications	Institute of Rural Management, Anand
21.	Dr Avinash Kasinath Ghule	Research Fellow (Dairy Science)	Institute of Rural Management, Anand
22.	Shri. Yashobanta Parida	Research Fellow (Economics)	Institute of Rural Management, Anand
23.	Smt. Sarojini Mishra	Chairman	OMFED, Bhubaneswar
24.	Shri Debendra Ku. Jena, IAS	Managing Director	OSCB, Bhubaneswar
25.	Shri Akshaya Ku. Mohanty	President	OSCB, Bhubaneswar
26.	Dr Pratap Kumar Mishra, OAS	Managing Director	Odisha State Cooperative Marketing Federation, Bhubaneswar
27.	Shri Shantanu Ghosh	Director	Madhusudan Institute of Coop. Management
28.	Dr N. Tirumala Naik	Director	Directorate of Fisheries, Dry Dock, Jobra, Cuttack
29.	Shri Manoranjan Nayak	Secretary	Odisha State Coop. Union
30.	Shri R. C. Sahoo	DGM	NABARD
31.	Prof. Srijit Mishra	Director	Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar
32.	Prof. Shibalal Meher	Professor	Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar
33.	Dr M Muthukumar, IAS	Director	Directorate of Agrl. Markets

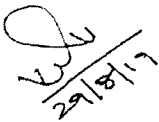
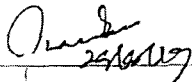
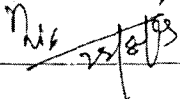

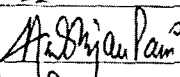
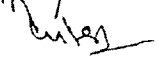


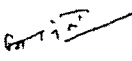

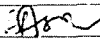
Sl. No.	Name	Designation	Organisation
34.	Dr Subhrendu Sekhar Dey	Managing Director	APICOL
35.	Smt. Rojalin Senapati	DRCS	DRCS, Khurda
36.	Shri Laxmidhar Subudhi	DRCS	DRCS, Cuttack
37.	Shri K. P. Samantaray		United Puri-Nimapara, CCB, Puri
38.	Shri Asis Priyadarshi		District Central Cooperative Bank, Keonjhar
39.	Shri Birendra Pratap Swain	President	Central Cooperative Bank, Cuttack
40.	Shri Narayan Madhei	President	District Central Cooperative Bank, Keonjhar
41.	Ms Chinmayee Charudarshini	OSD	OSCU, Bhubaneswar
42.	Shri R C Sahoo	DGM	NABARD, Bhubaneswar
43.	Shri B P Mohanty	Branch Manager	AMUL, Bhubaneswar
44.	Shri R K Nayak	Manager(Technical)	APICOL, Government of Odisha
45.	Shri S K Sethy	Joint AGCS	AGCS, Bhubaneswar
46.	Dr. Patanjali Tripathi		Ex ARCS, Government of Odisha
47.	Shri Niranjana Baral		I & PR, Government of Odisha
48.	Dr C Bijaya		MICM, Government of Odisha
49.	Shri Tapas Kumar Saha	IR	Ministry of Cooperation, Government of Odisha
50.	Shri Swastik Jena		Mayurbhanj CCB, Government of Odisha
51.	Shri S K Ejaj Alli	SARCS	RCS, Government of Odisha

ANNEXURE 3: ATTENDANCE

ATTENDANCE SHEET OF WORKSHOP ON "Doubling Farmers Income: Exploring Pathways for Cooperatives in Odisha"

Venue: Conference Hall, Odisha State Cooperative Bank Ltd. Bhubaneswar

DATE: 29TH AUG. 2019

Sl. No	Name	Office	Designation	Signature
1	Shri. Vir Vikram Yadav, IAS	Cooperation Department.	The Commissioner -Cum- Secretary to Govt. of Odisha	 29/8/19
2	Dr. Tribikram Pradhan, IAS	Excise Department, Govt. of Odisha	Additional Secretary	 29/8/19
3	Sri B. B. Patnaik, IAS	Registrar of Cooperative Societies, Odisha	Registrar	 29/8/19
4	Smt. Gayatri Patnaik	Registrar of Cooperative Societies, Odisha	Deputy Director (Statistics)	
5	Shri Dhanraj Khatri	National Dairy Development Board, Bhubaneswar	Manager, Cooperative Services	
6	Shri Manoranjan Panigrahy	GCMMF, Anand - Gujarat	GM (Marketing)	
7	Prof. Hitesh V. Bhatt	Institute of Rural Management, Anand	Director	
8	Prof. Harekrishna Misra	Institute of Rural Management, Anand	VKCoE Chair Professor	
9	Prof. Saswata Biswas	Institute of Rural Management, Anand	Professor	
10	Prof. Sridhar Viswanath	Institute of Rural Management, Anand	Assistant Professor	
11	Prof. Shivshanker Singh Patel	Institute of Rural Management, Anand	Assistant Professor	
12	Prof. Uday S Saha	Institute of Rural Management, Anand	RBI Chair Professor	
13	Prof. S R Asokan	Institute of Rural Management, Anand	Adjunct	

		Management, Anand	Professor	
14	Dr. K K Tripathi, IES	VAMNICOM, Pune	Director	<i>KKB</i>
15	Mr. Balasubramanian (Balulyer)	International Cooperative Alliance-Asia Pacific (ICA-AP)	Regional Director	<i>Balu</i>
16	Mr. Mohit Dave	International Cooperative Alliance-Asia Pacific (ICA-AP)	Programme Officer	<i>Mohit</i>
17	Mr. Lav Bhardwaj	NITI Aayog	Young Professional, DME0	<i>Lav Bhardwaj</i>
18	Ms. Shilpa Bhaskar	Institute of Rural Management, Anand	Manager Communications	<i>SK</i>
19	Dr. Avinash Kasinath Ghule	Institute of Rural Management, Anand	Research Fellow (Dairy Science)	<i>Avinash</i>
20	Shri. Yashobanta Parida	Institute of Rural Management, Anand	Research Fellow (Economics)	<i>Yashobanta Parida</i>
21	Smt. Sarojini Mishra	OMFED, Bhubaneswar	Chairman	<i>Sarojini Mishra</i>
22	Shri R. Raghu Prasad	OMFED, Bhubaneswar	Managing Director	
23	Shri Debendra Ku. Jena, IAS	OSCB	Managing Director	<i>Debendra</i>
24	Shri Akshaya Ku. Mohanty	OSCB	President	
25	Dr. Pratap Kumar Mishra, OAS	Odisha State Coop. Mkt. Federation	Managing Director	
26	Sri Shantanu Ghosh Ms. Deepa Mayee Jena Sri Shantanu Ghosh	Madhusudan Institute of Coop. Management	Director Chief Scientist Director	<i>Shantanu Ghosh</i>
27	Dr. N. Tirumala Naik	Directorate of Fisheries, Dry Dock, Jobra, Cuttack.	Director	<i>N. Tirumala Naik</i>
28	Shri Hemanta Nayak	Odisha State Coop. Union	President	
29	Shri Manoranjan Nayak Ms. Chinmayee Chandrasekhar	Odisha State Coop. Union	Secretary OsD	<i>CEP</i> <i>29.8.15</i>
30	Shri A Chandrasekhar	NABARD	CGM	

R C Sahu

NABARD

CGM

NE-29/8/15

31	Prof. Sajit Mishra	NCCDS	Post Director	
32	DR. Rashmi Mishra	Nabakrushna Choudhury Centre for Development Studies	Reader	
33	Prof. Shiblal Meher	Nabakrushna Choudhury Centre for Development Studies	Professor	29/8/19
34	Mr. Tarun Bhargav	IFFCO	DGM	29/8/19
35	Dr. M Muthukumar, IAS	Directorate of Agri. Markets	Director	29/8/19
36	Shri Bharat Chandra Behera, O.A.S. (SAG)	AGCS, Bhubaneswar	AGCS	
37	Dr. Subhrendu Sekhar Dey	APICOL	Managing Director	
38	Smt. Rogalin Senapati	DRCS, Khurda	DRCS	29.8.2019
39	Shri Laxmidhar Subudhi	DRCS, Cuttack	DRCS	
40	Shri K.P. Samantaray	United Puri-Nimapara CCB, Puri	RP, PDE. UPNCCB, Puri	29/8/19
41	Shri Asis Priyadarshi	District Central Cooperative Bank, Keonjhar.	District Central Cooperative Bank, Keonjhar.	29/8/19
42	Shri Birendra Pratap Swain	Central Cooperative Bank, Cuttack	President	
43	Shri Narayan Madhei Kanan Bihari Patra	District Central Cooperative Bank, Keonjhar	President	

44 B.P. Mohanty

ANUL

BM

29/8/19

45 R.K. Nayak

APICOL

MANAGER, Technical

29/8/19

46. S.K. Sethy

AGCS, Bhubaneswar

Joint AGCS

29/8/2019

47. Parshu Meher

adviser

29/8/19

48. Patanjali Tripathi

29.8.19

49. Nirmanjan Baral

IS PR

29/8/19

50. Abhinav Swadhikara

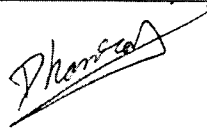

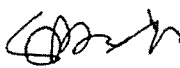
Daily Paper

- 51) Dr. C Bijaya MICM ^{Chijaya}
- 52) Mr. Tapan K. Saha IR, Ministry of cooperation Tapan K. Saha
- 53) Sri Guruscharan Nanda ICS Gurus Ch. Nanda

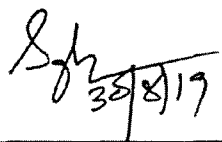
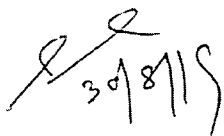

ATTENDANCE SHEET OF WORKSHOP ON "DOUBLING FARMERS' INCOME: Exploring Pathways for Cooperatives in Odisha"

Venue: Conference Hall, OSCB, Bhubaneswar

DATE: 30TH AUG. 2019

SL No	Name	Office	Designation	Signature
1	Shri. Vir Vikram Yadav, IAS	Cooperation Department.	The Commissioner -Cum- Secretary to Govt Govt. of Odisha	
2	Dr. Tribrikram Pradhan, IAS	Excise Department, Govt. of Odisha	Additional Secretary	
3	Shri B. B. Patnaik, IAS	Registrar of Cooperative Societies, Odisha	Registrar	
4	Smt Gayatri Patnaik	Registrar of Cooperative Societies, Odisha	Deputy Director (Statistics)	
5	Shri Dhanraj Khatri	National Dairy Development Board, Bhubaneswar	Manager, Cooperative Services	
6	Shri Manoranjan Pani	GCMMF, Anand - Gujarat	GM (Marketing)	
7	Prof. Hitesh V. Bhatt	Institute of Rural Management, Anand	Director	
8	Prof. Harekrishna Misra	Institute of Rural Management, Anand	VKCoE Chair Professor	
9	Prof. Saswata Biswas	Institute of Rural Management, Anand	Professor	
10	Prof. Sridhar Viswanath	Institute of Rural	Assistant	

		Management, Anand	Professor	
11	Prof. Shivshanker Singh Patel	Institute of Rural Management, Anand	Assistant Professor	
12	Prof. Uday S Saha	Institute of Rural Management, Anand	PIB Chair Professor	
13	Prof. S R Asokan	Institute of Rural Management, Anand	Adjunct Professor	
14	Dr. K K Tripathi, IES	VAMHICOLA, Pune	Director	
15	Mr. Balasubramanian (Balu) Iyer	International Cooperative Alliance-Asia Pacific (ICA-AP)	Regional Director	
16	Mr. Mohit Dave	International Cooperative Alliance-Asia Pacific (ICA-AP)	Programme Officer	
17	Mr. Lav Bhardwaj	NITI Aayog	Young Professional, DIMEO	
18	Ms. Shilpa Bhaskar	Institute of Rural Management, Anand	Manager Communications	
19	Dr. Avinash Kasinath Ghule	Institute of Rural Management, Anand	Research Fellow (Dairy Science)	
20	Shri. Yashobanta Parida	Institute of Rural Management, Anand	Research Fellow (Economics)	
21	Smt. Sarojini Mishra	OMFED, Bhubaneswar	Chairman	
22	Shri R. Raghu Prasad	OMFED, Bhubaneswar	Managing Director	
23	Shri Debendra Ku. Jena, IAS	OSCB	Managing	

			Director	
24	Shri Akshaya Ku. Mohanty	OSCB	President	
25	Dr. Pratap Kumar Mishra, OAS	Odisha State Coop. Mkt. Federation	Managing Director	
26	Shri Shantanu Ghosh	Madhusudan Institute of Coop. Management	Director	
27	Dr. N. Tirumala Naik	Directorate of Fisheries, Dry Dock, Jobra, Cuttack.	Director	
28	Shri Hemanta Nayak	Odisha State Coop. Union	President	
29	Shri Manoranjan Nayak	Odisha State Coop. Union	Secretary	
30	Shri A Chandrasekhar	NABARD	CGM	
31	Prof. Srijit Mishra		Director	
32	DR. Rashmi Mishra	Nabakrushna Choudhury Centre for Development Studies	Reader	
33	Prof. Shibalal Meher	Nabakrushna Choudhury Centre for Development Studies	Professor	
34	Mr. Tarun Bhargav	IFFCO	DGM	
35	Dr. M Muthukumar, IAS	Directorate of Agrl. Markets	Director	
36	Shri Bharat Chandra Behera, O.A.S.(SAG)	AGCS, Bhubaneswar	AGCS	
37	Dr. Subhrendu Sekhar Dey	APICOL	Managing Director	

38	Smt. Rojalin Senapati	DRCS, Khurda	DRCS	Rojalin Senapati 30.8.2019
39	Shri Laxmidhar Subudhi	DRCS, Cuttack	DRCS	Laxmidhar Subudhi 30.8.19
40	Shri K.P. Samantaray	United Puri-Nimapara CCB, Puri	Resource Person The UPNCC Bank Ltd., Puri.	Shri K.P. Samantaray 30/8/2019
41	Shri Asis Priyadarshi	District Central Cooperative Bank, Keonjhar		Shri Asis Priyadarshi
42	Shri Birendra Pratap Swain	Central Cooperative Bank, Cuttack	President	
43	Shri Narayan Madhei	District Central Cooperative Bank, Keonjhar	President	
44	Ms. Chinmayee Charudarshini	OSCU	OSD	Chinmayee Charudarshini 30.8.19.
45	Mr. R C Sahoo	NABARD	DGM	
46	Sri B P Mohanty	AMUL	Branch Manager	
47	Sri R K Nayak	APICOL	Manager(Technical)	R K Nayak
48	Sri S K Sethy	AGCS, Bhubaneswar	Joint AGCS	
49	Dr. Patanjali Tripathi	Ex ARCS		Patanjali Tripathi 30.8.19
50	Sri Niranjana Baral	I & PR		
51	Dr. C Vijaya	MICM		C Vijaya 30/8/2019
52	Sri Tapas Kumar Saha	Ministry of IR Cooperation		

53. Swastik Jana

Mayurkhanj CCB

Swastik Jana.

54. S.K. E. Saini Ali.

SARCS
of RLS (O)

S.K. E. Saini Ali.

55. P. K. Mishra

(Jadhav)
St. Governmental
of RLS (O)

P. K. Mishra
30/8/19

56. K. C. Das

ARCS (Hq)
of RLS (O)

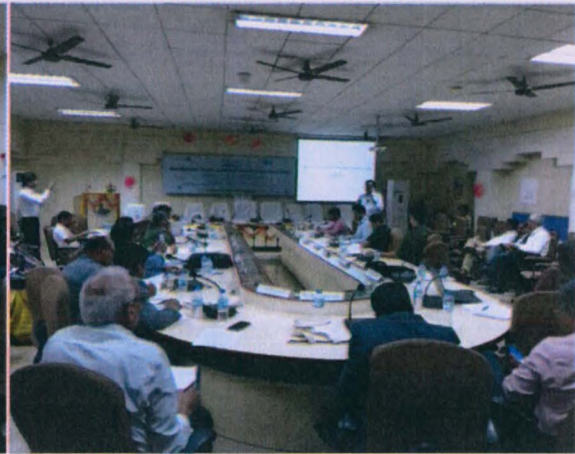
K. C. Das
30/8/19

ANNEXURE 4: PHOTOGRAPHS

Panel Discussions



Prof Harekrishna Misra, Chair, VKCoE-IRMA, opens the panel discussion as moderator



Prof SR Asokan



Prof Hitesh V Bhatt, Director – IRMA



Dr Patanjali Tripathy



Smt Sarojini Mishra, Chairperson, OMFED



Smt Gayatri Patnaik



Shri Balasubramanian Iyer, Regional Director, ICA-AP



Shri Manoranjan Pani



Shri Lav Bhardwaj

Theme discussions



Theme 1



Theme 1



Theme 2



Theme 2



Theme 3



Theme 3



Theme 4

ANNEXURE 5: BIBLIOGRAPHY AND ENDNOTES

Bibliography

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Endnotes

ⁱ Kevin N. Laland, "On the Origin of Cooperation," *The New Atlantis*, Number 52, Spring 2017, pp. 70-85.

ⁱⁱ Cooperative identity, values & principles. Definition of a Cooperative. International Cooperative Alliance. Retrieved from <https://www.ica.coop/en/cooperatives/cooperative-identity>

ⁱⁱⁱ Mahajans and sahkars refer to informal moneylenders in a village

^{iv} Kisan bhai means Farmer Brother in Hindi

^v The kharif season starts from June and ends in September. Kharif crops are grown in both irrigated and rain-fed conditions. The season begins from the onset of the south-west monsoon and ends in September.

^{vi} The Rabi season is during October to February. The rabi season starts with the onset of north-east monsoon in October.

^{vii} Krishi Karman Award is awarded by the Central Government to best performing states in foodgrain production

^{viii} A mandi refers to a rural market place