YOANA **SPECIAL ISSUE**

JULY 2023

A DEVELOPMENT MONTHLY

COOPERATION TO PROSPERITY

LEAD ARTICLE Sahakar se Samriddhi **From Planning To Realisation**

AMIT SHAH

FOCUS

Strategic Diversification of Cooperatives and Business Competitiveness Dr Manisha Paliwal

Empowering Agriculture Credit Cooperatives through Digitisation Anshu Singh

SPECIAL

DO YOU KNOW?

COOPERATIVES BASICS: FAQS

What is a Cooperation?

The concept of Cooperation envisages a group of persons having one or more common economic needs, who voluntarily agree to pool their resources-both human and material, and use them for mutual benefit through an enterprise managed by them on democratic lines.

Cooperation is a form of economic organisation based on certain values of life. It is a voluntary and democratic association of human beings, based on equality of control, opportunity and equity of distribution. Further, it stands for the promotion of the common interests of producers and consumers. All economic concerns run for profit and profit making is their sole objective. But, Cooperation renders services to its members without the sole intention of making profits.

What are the Constitutional Provisions for a Cooperative Society?

- i) Article 19(1)(c) of the Constitution of India states that - All citizens shall have the right to form associations or unions [or co-operative societies]
- Directive Principles of State Policy 43B- Promotion of cooperative societies — The State shall endeavour to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies.
- iii) Part IXB of the Constitution of India grants constitutional status to cooperative societies and contains provisions for their democratic functioning.

What is a Cooperative Society?

An autonomous open and voluntary association of persons

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of the weaker section of the society, to meet their common socio-economic and cultural needs and aspiration through a jointly owned and democratic control enterprise in accordance with the cooperative values and principles.

What is National Cooperative Database?

The primary goal and purpose of building National Cooperative Database is to have Information based Decision Support System.

- Taking the cooperatives movement in the country to a new level by strengthening grassroots-level reach and coordination of activities across sectors.
- Promoting cooperatives-based inclusive and sustainable model of economic development.
- Easing operational processes.

Source: Ministry of Cooperation

SPECIAL ISSUE

JULY 2023

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COVER DESIGN **BINDU VERMA**

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YOJANA, a development monthly published since 1957, is a theme-based journal providing in-depth analyses and views on socio-economic issues in the broader framework of government policies. Although published by the Ministry of Information and Broadcasting, YOJANA is not restricted to expressing the official point of view.

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Let noble thoughts come to us from all sides.

Volume-67

No. 07

LEAD ARTICLE

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FOCUS

17



Rig Veda

Since 1957 A DEVELOPMENT MONTHLY

IN THIS ISSUE



REGULARS



DEVELOPMENT ROADMAP WORLD'S LARGEST GRAIN STORAGE PLAN

UPCOMING ISSUE: **AZADI KA AMRIT MAHOTSAV**

Number of pages: 84

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Details of the Sales Outlets of the Publications Division on Page 35

YOJANA is published in Assamese, Bengali, English, Gujarati, Hindi, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil, Telugu, and Urdu.



Extremely Rich Content

I have been reading the 'Yojana' regularly for a while. May I say that it is meticulously researched, well-compiled publication, and extremely rich in content. Kindly accept my deep compliments.

A Holistic Issue on Health

I am writing this just after reading Yojana's June '23 issue in one go. This was so fascinating and informative that I couldn't resist reading it in more than one sitting and writing to you. The issue of 'Health and its management through yoga and good dietary practice' pointed out a very important, serious, and compelling problem of today's generation. Almost everybody has some medical or mental problems (some may have unresolved conflicts within, which may not be to the degree of disease but harmful to health in the long run) that may vary in severity, but few people understand how to cope with this. All your information was dealt with the depth of both physical and mental health issues, in addition to spiritual health. I suggest readers to read this issue of June month twice to deeply understand its holistic and good intended message. Thank you for this fantastic issue and helping humanity as a whole. One last thing, the last chapter on Gandhi Ji was the live validation and proof of all your information. Thank you again.

– Anoop Sharma, Uttar Pradesh

Mindfulness & Meditation

The Special article of June 2023 by Padma Bhushan laureate is really touching the life inside a life. It is reminding me of Swami Vivekananda and Lord Buddha. What a lively article it is- full of joy, peace, harmony with the soul, and a situation of perfect bliss. Moreover, one can realise the true – **Lt Gen Raj Shukla** PVSM, YSM, SM (Retd.) Member, UPSC

essence of life with meditation. Thank you from the heart!!

- Kiran, Uttar Pradesh

Ancient Wisdom

As a student, I am always excited for the new edition of Yojana magazine. The June 2023 edition gave me a holistic understanding of India's rich ancient wisdom of health and what the Government is doing to promote it. This edition also provided some beneficial tips for a healthy lifestyle.

- Naresh Kumar Meena

Suggested Topic

I have been a reader of Yojana English since my college days. I am now working on IPR-related matter. I shall be grateful if Team Yojana will shed light on IPR activity by publishing this topic as techade in May 2023. With best regards.

- Barun Sinha, Kolkata

India as Tech Vishwaguru

'Yojana' May 2023 issue of 'Techade' was very informative and illuminating. This issue sheds light on the technological advancement of India. It also envisages the role of the Government in imbibing and encouraging innovation in the field of Information and Technology. Articles are instructive and informative. The editorial is also heart-touching. Sincerely, thanks to Yojana team for their honest efforts and dedication.

- Atish Kumar Dash, Odisha

Editorial

Nurturing Cooperatives

"Cooperation is a great medium for the self-sufficiency of the village, it has the energy of Atmanirbhar Bharat." - Prime Minister Narendra Modi

Manthan, a crowd-sourced Hindi movie released in 1976, showcased the power of cooperatives probably for the first time on the silver screen. Here, dairy cooperatives were at the centre stage of a mostly agrarian society. Khadi cooperatives and Shri Mahila Griha Udyog were some other popular cooperatives that touched households of those times and empowered women. Cooperatives are grassroot institutions with democratic governance formed for the common interests of society. It is aimed at the socio-economic upliftment of the community and providing market for their products. This is truly a model based on cooperation, collective gain, and building social capital.

Despite the fact that these cooperatives have operated and sustained since their inception more than a century ago, the overall picture was not particularly appealing. On 6 July 2021, when a separate 'Ministry of Cooperation' (MoC) was created by the Union Government with the purpose of attaining the goal of 'Sahakar se Samriddhi', it was a historic



decision to further develop cooperatives as a true people-based movement reaching up to the grassroots.

This was seen as a massive step towards bolstering the nation's cooperative movement and recognising the power of our cooperatives, which place people before capital and operate as people-centric businesses. This Ministry provides a separate administrative, legal, and policy framework to support the development of cooperatives and make them more competitive. Such an alteration in structure is the need of the hour to transform cooperatives into a viable and thriving business model in the existing socio-economic environment. Since inception, the Ministry has been successful in obtaining approval for significant policies, including bringing cooperative societies on the GeM platform, computerisation of Primary Agriculture Credit Societies (PACS), strengthening multi-state cooperative societies, etc., with the aim of boosting cooperative development efforts. Not only this, MoC has also actively collaborated with stakeholders in gathering, compiling, analysing, and resolving a variety of problems and concerns to improve the business climate for the cooperative sector, streamlining processes for 'Ease of Doing Business'.

Recent measures have been seen as concrete steps towards further strengthening the cooperative sector. The 'World's Largest Grain Storage Plan' in the Cooperative Sector is in the pipeline through the convergence of various schemes. The decision to form three multi-state cooperative societies for Seed, Organic, and Export will provide fresh momentum to the cooperative sector. Also, plans to establish viable PACS in each uncovered panchayat, viable dairy cooperatives in each uncovered panchayat/village and fishery cooperatives in each coastal panchayat/village as well as panchayat/village having large water bodies have been formulated, as well as reinforcing existing PACS/dairy/fishery cooperatives through the convergence of various schemes of Ministry of Fisheries, Animal Husbandry & Dairying by leveraging the 'Whole-of-Government' approach.

Cooperatives played a significant role in developing an economic model for rural development. The establishment of MoC, a reviving step by the Government will certainly bring transparency and expand the reach of cooperatives to the grassroots across the country. This issue of Yojana intends to be a part of an extensive discussion about this revolution in the cooperative sector and its indispensable role in the country's development. We hope the insights from subject experts will broaden the understanding of our readers about the capacity of cooperatives to bring together communities while promoting self-reliance.

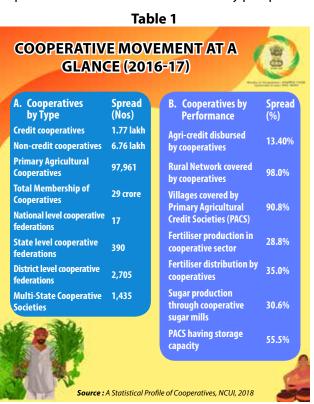
At the time when we rejoice the Azadi Ka Amrit Mahotsav, we must get ourselves future-ready to become one of the world economic leaders through the mechanism of cooperation during the Amrit Kaal. It is the cooperation-led economic model that has the potential to promote balanced regional development and prompt local entrepreneurs to think globally. The Ministry of Cooperation is committed to follow a converged and concerted approach in implementing government initiatives through a Whole-of-Government approach for realising the PM's dream of 'Sahakar se Samriddhi'.

he word Cooperation' signifies team and elucidates trusteeship two terminological assertions - saha and karya, meaning working together. The growing complexities of human life, broadened space of unfulfilled modern-day public preferences and aspirations, the drives and needs for continuous progress and prosperity, and appropriateness of varied kinds and degrees of cooperation have motivated the Prime Minister, Narendra Modi to carve out a separate administrative Ministry -Ministry of Cooperation (MoC) on 6 July 2021. The PM's clarion call - Sahakar se Samriddhi had emphasised on sharpening the means as well as the goals of the government, offering a clear message of cooperation as a tool to achieve economic freedom, self-reliance and social justice, through community-led and community-owned entrepreneurial exertions.

Cooperatives are community-level business organisations with incredible capacity to generate and absorb social capital. Our forefathers have tried to instill and nurture the spirit of cooperation in every citizen to propagate and prove that 'cooperation' has remained our way of life in India, which advocates Vasudhaiva Kutumbakam from time immemorial. From the promulgation of the Cooperative Credit Societies Act in 1904 to its amendment in 1912, the cooperative movement was a movement of relief and was largely concentrated on rural credit mobilisation and disbursements to farmers. Following recommendations by the Maclagan Committee on Cooperation in India (1914-15), the movement transitioned from being primarily focused on providing relief to becoming a movement that aimed to improve socio-economic welfare. In postindependent India, cooperatives experienced a significant shift as they received due recognition in the perspective plans of the Government of India.

India has a rich history of cooperatives and is home to 8.54 lakh cooperatives of which 80% are non-credit cooperatives, and 20% are credit cooperatives. Today, cooperatives have a presence in 98% of villages, with 29 crore members. Table 1 gives an overview of the cooperative movement in India.

India is now celebrating its past glorious achievements and exploring pathways to make a deprivation-free and socio-economically prosperous



environment. At the time when we rejoice the Azadi Ka Amrit Mahotsav and India@75, we must get ourselves future-ready to become one of the world economic leaders through the mechanism of cooperation during the Amrit Kaal (2023-2047).

HONOURING COOPERATIVE PRINCIPLES

We should appreciate and acknowledge the strength of our cooperatives, which prioritise people over capital and function as people-centric organisations. These bring collective cohesiveness, community business sense, and enhanced social bonding by adhering to seven golden principles (Table 2) of cooperation. Cooperation has enormous abilities to ensure all-inclusive economic growth. India's Iron Man, Sardar Vallabh Bhai Patelji sowed the seeds of Anand Milk Union Limited (Amul) through Tribhuvandas Patel by forming farmer cooperatives for the production and marketing of milk through collectivised efforts. The small seed sown by him has now become a global dairy brand by duly justifying the eternal principles of Indian cooperatives, viz. Sahajeevan (Living together harmoniously), Swadeshi (Make in India), Swanirbhar (Self-Sufficient), and Samriddhi (Prosperity).

Cooperatives have distinctive identities. The actual strength of the cooperative business model for achieving the ever-cherished goal of all-inclusive development is yet to be harnessed to its fullest. While cooperatives exert a catalytic impact on the nation's development drives, there is a need to build a vibrant and resilient cooperative sector on this strong foundation. All the hurdles and bottlenecks need to be addressed through appropriate policy and apt government interventions. Important policy parameters [4 Ps + 4 Es] for attaining *Sahakar se Samriddhi* are at Table 3.

COMMITMENT TO COOPERATIVE MOVEMENT

It is the cooperation-led economic model that has the potential to promote balanced regional development and prompt local entrepreneurs to think globally. We have decided to plan, prioritise and explore new emerging areas for our cooperatives and strive collectively by being members of a cooperative 'SQUAD' – where 'S' denotes 'Self-reliance (Atmanirbhar)', 'Q' stands for 'Quality Performance', 'U' stands for 'Unshakable Cooperative Movement','A' and'D'for'Accountability in Governance' and 'Development through Modern

Table 2

PRINCIPLES OF COOPERATION

VOLUNTARY AND OPEN MEMBERSHIP

Voluntary membership and open to all without discrimination.

MEMBER ECONOMIC PARTICIPATION

Members contribute equitably to and control and utilise the capital of their cooperative to support their economic activities.

AUTONOMY AND INDEPENDENCE

Autonomous business entities which believe in self-help with democratic controls.





DEMOCRATIC MEMBER CONTROL

Member-driven and member controlled democratic units. Members actively participate in decision making processes. Members have equal voting rights [one member - one vote].

EDUCATION, TRAINING AND INFORMATION

Provision of member education and training, training for elected representatives, managers and employees of cooperatives.

CONCERN FOR COMMUNITY

Ensure sustainable community development by adopting right policy measures and meeting issues of community development.

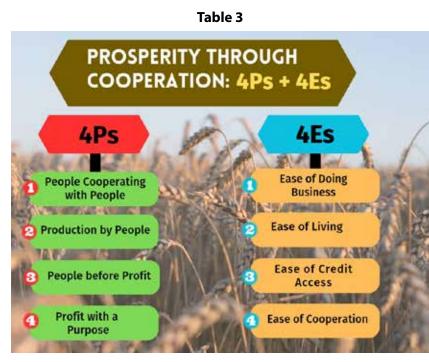
COOPERATION AMONG COOPERATIVES

Strengthening the cooperative movement by working together. Technology', respectively (Table 4).

There was а strongly felt need to revive cooperatives by identifying opportunities, addressing issues and challenges, and striking a fine balance between legislative control and the promotion of cooperatives. The common efforts of the States/UTs and the Union Government are poised to ensure a uniform legal and operational framework for synergetic cooperative development.

Our Government is committed to the formulation of an allinclusive policy for the uniform cooperative movement. The National

(Source: International Cooperative Alliance [Available at https://www.ica.coop/en/cooperatives/cooperative-identity])



Cooperation Policy is being finalised by a committee [Chairman: Suresh Prabhu]. The policy document is expected to provide us with plausible roadmaps not only to strengthen and deepen the cooperative movement but also to promote and propagate a cooperative-based inclusive economic development model to attain self-reliance.

During July 2021 and May 2023, the Ministry successfully got approvals on

eight important policy matters (Table 5) with the objective of giving a big push to cooperative development initiatives.

Since inception, MoC has been actively engaged with stakeholders in collecting, compiling, analysing and resolvina various issues challenges to smoothen and the business environment for the cooperative sector. Recent tireless initiatives and efforts that produced positive results for the growth of cooperatives are indicated in Table 6.

MODEL BYE-LAWS: MAKING PACS VIBRANT

Model bye-laws for PACS have been drawn and circulated

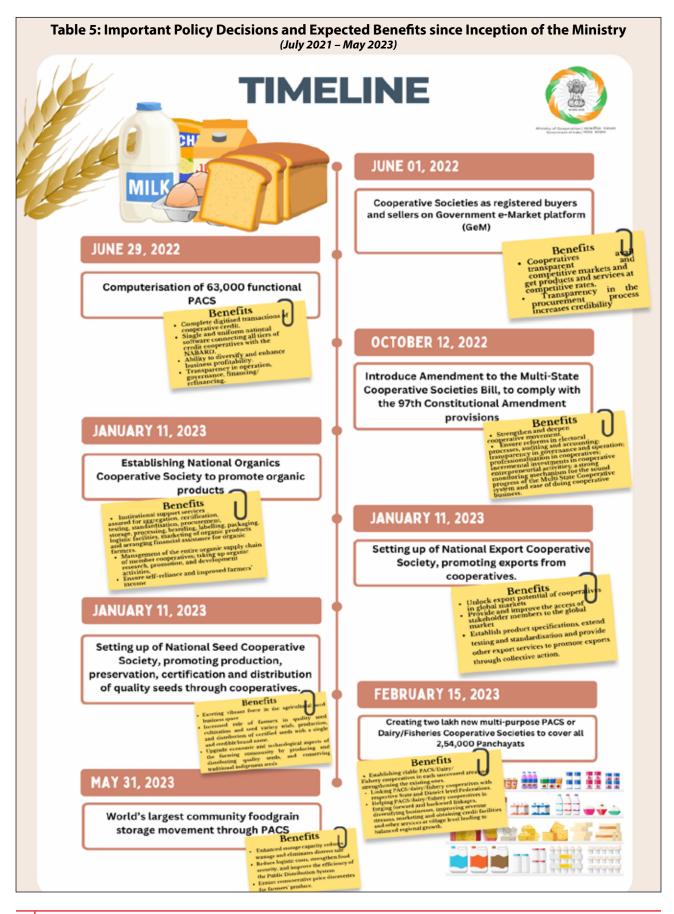
to the States/UTs for appropriate adoption in order to create a vibrant and strong multipurpose and multi-dimensional cooperative culture at the grassroots. So far, 22 States/UTs have adopted the model bye-laws to guarantee more than 25 business activities ranging from fisheries, storage, warehouses, dairy, Common Service Centres (CSCs), banking correspondence, and activities pertaining to new and renewable energy, and other emerging areas. The model byelaws have the potential to enhance operational efficiency, transparency, and responsibility towards collective community development.

PACS AS COMMON SERVICE CENTRES (CSCs)

The Ministry of Electronics and Information Technology, MoC, NABARD, and CSC e-services have signed an MOU to register and digitise PACS/Large Area Multi-Purpose Societies (LAMPS) to provide more than 300 e-services to common citizens. Services, inter alia, include banking, insurance, Aadhaar enrolment/update legal services, agriinput management, PAN card, bus/air/rail ticket

Table 4







services, etc. In the first phase, it is planned to provide all e-services through PACS in 75 select districts of the country. PACS as CSC will diversify their businesses for self-sustenance.

INTEGRATING PACS WITH FPO

Cooperatives are ready to promote Farmer Producer Organisations (FPOs). The Government of India has decided to allot an additional 1,100 FPOs to NCDC under the existing FPOs Scheme of the Ministry of Agriculture and Farmers Welfare. Integration of the FPOs Scheme in cooperatives would help PACS extend their scope of activities in

agriculture production, input management, agri-equipment, processing, packaging, storage and transportation, etc. The integration also enables PACS to take up high income enterprises like beekeeping, mushroom cultivation, etc.

INVOLVING PACS IN OIL & ENERGY BUSINESS

The PACS are now eligible to avail licenses for Petrol/ Diesel dealerships and LPG distributorships. Existing PACS have been granted relaxations to exercise a onetime option to convert their The Government is committed to preserving the existing three-tier structure of the cooperative credit system, as any dilution in the structure could weaken the credit mobilisation, distribution, financing, and refinancing system of cooperatives.



bulk consumer Petrol/Diesel status into retail outlets. These affirmative initiatives ensure business diversifications and generate income and employment. PACS are all-set to get engaged in energy security efforts too. They will be active partners in implementing various renewable energy schemes of the Ministry of New and Renewable Energy (MNRE). The existing PM-KUSUM Scheme of MNRE will enable the farmer members of PAC to ensure energy security and guarantee incremental income through the installation of photovoltaic modules on the periphery of their farmland.

DEVELOPING NATIONAL DATABASE

MoC is developing а cooperative comprehensive database to capture systemic and organised information to catalogue sector-specific, diverse cooperatives. It took a massive exercise to design develop and а national database in a phased manner. The database will store authentic and updated data on cooperatives of all sectors to help stakeholders carry out data analytics, find gaps and support policy formulation.

	Table 6: Initiative/Relief and Benefit Offered to Cooperatives (July 2021- April 2023)			
SN	Relief /Initiatives	Provision	Benefits	
1	Surcharge on Income Tax (IT)	Surcharge reduced from 12% to 7% for cooperatives (for annual income between Rs 1 crore and Rs 10 crore.)	 Low tax burden Higher capital base for business activities 	
2	Minimum Alternate Tax (MAT)	MAT for cooperatives reduced from 18.5% to 15%	Parity with Companies achieved.Strong cooperation spread	
3	Increase limit of cash deposits and cash loans by PACS and PCARDBs	Limit on cash deposits and cash loans by PACS and Primary Cooperative Agriculture and Rural Development Banks (PCARDBs) increased from Rs 20,000 to Rs 2 lakh per member.	 More community economic activities Increased rural business opportunities 	
4	Tax relief for new manufacturing cooperatives	Flat tax rate of 15% announced against 30% on new cooperatives starting manufacturing by 31 st March 2024	 Parity between cooperatives and companies Strong roots and spread of cooperation 	
5	Increase in the limit of Tax Deduction at Source	Cash withdrawal limit raised from Rs 1 cr. to Rs. 3 cr. per year without deducting tax at source.	 Hassle-free tax compliance with ease of doing business for cooperative societies 	
6	Relief under section 269ST of the IT Act	Clarification issued to remove difficulties on cash transactions carried out by cooperative societies under section 269ST of IT Act.		
7	Tax relief to cooperative sugar mills	Cooperative sugar mills will not have to pay additional IT on payment of higher prices of sugar cane up to the fair and remunerative prices or the price as advised/administered by the state.	 Higher sugarcane prices go to sugar farmer members. Reduction of tax by categorising higher price as expenditure and improved tax administration Reduced tax burden on sugar cooperative mills 	
8	Resolution of long pending issues of sugar cooperative mills	The payments made by cooperative sugar mills to sugarcane farmers before the assessment year 2016-17 will now be claimed as expenses	 Estimated total relief of Rs 10,000 crore Freedom from decades-old IT arrears and related penalties. Strong capital base 	
9	Rs 10,000 cr. Ioan scheme through National Cooperative Development Corporation (NCDC) for cooperative sugar mills	MoC's new Rs 1,000 crore scheme - 'Grants-in-aid to NCDC launched for Strengthening of Cooperative Sugar Mills	 Grant of loan to cooperative sugar mills for setting up ethanol plant, cogeneration plant, or for meeting working capital needs 	
10	Recognition of cooperative banks as member lending institutions in the Credit Guarantee Fund Trust	Credit Guarantee Fund Trust to non- scheduled Urban Co-operative Banks, State Cooperative Banks (StCBs) and District Central Cooperative Banks DCCBs). (CGTMSE) have been notified as Member Lending Institutions (MLIs)	 Increase in the share of cooperatives in lending to Micro, Small, and Medium Enterprises. Credit guarantees of up to 85% to micro and small enterprises through cooperative financial institutions 	
11	Redressal of difficulties in cooperative banks	RBI permitted DCCBs and StCBs to grant commercial real estate residential housing loans.	 Individual housing loan limit doubled Door-step banking allowed 	

CONSOLIDATING COOPERATIVE CREDIT

There are about 13 crore farmers linked directly to the cooperatives through PACS. Their diverse credit needs require careful planning for effective financing and refinancing. The Government is committed to preserving the existing three-tier structure of the cooperative credit system, as any dilution in the structure could weaken the credit mobilisation. distribution,

The Ministry's initiatives envisage working as a team with all stakeholders to ensure an effective, allinclusive, multi-faceted, vibrant cooperative environment from the village level to the national level.

financing, and refinancing system of cooperatives. MoC has devoted its efforts to addressing issues to enhance credit flow through cooperative credit structures, i.e., from StCB to DCCB to PACS. There is also a need to strengthen the middle-tier of the credit structure– DCCBs. To strengthen the Long-Term (LT) cooperative credit structure, MoC is working on a project for the computerisation of Agricultural and Rural Development Banks (ARDBs). Planned and adequate computerisation of PCARDBs and State Cooperative Agriculture and Rural Development Banks (SCARDBs) will remove issues, inadequacies, and inefficiencies in their operation and profitability.

IMPROVING COOPERATIVE EDUCATION & TRAINING

We are extending greater emphasis on imparting education and training to the primary members to make them aware of the new initiatives taken by the Union Government for the spread and growth of cooperatives. States/ UTs should devise a plan of

action through which awareness about the benefits of the initiatives could be effectively channelised and disseminated in local and easy-to-understand languages. We have expressed our commitment to creating a national cooperative university with pan-India functionalities. The University is being established for improved and time-tested cooperative teaching, training, consulting, research, and development. Through the establishment of a university, a comprehensive, integrated and standardised structure for cooperative teaching





and training will be created. The university will also meet the demand for capacity building of the existing workforce while ensuring a local, adequate, and quality supply of trained workforce.

CONCLUSION & ROAD AHEAD

The Ministry is committed to follow a converged and concerted approach in implementing government initiatives through a Whole-of-Government approach for realising the PM's dream of *Sahakar se Samriddhi*. The contribution of cooperatives will have a multiplier effect on our PM's vision of a five trillion-dollar Indian economy and enhancing the income of farmers. To accomplish this, we must actively empower and



revitalise primary cooperatives at the communitylevel as a priority. To make PACs active and vibrant, we all have to work in unison, bring consensus to our approach, and help facilitate the effective implementation of the Ministry's initiatives directed towards empowerment of PACS.

There is a need to identify and address various issues to ensure the smooth and sustainable progress of cooperatives. Some of the vital issues that require immediate attention are - (a) reduction in regional and sectoral imbalances in cooperative spread; (b) meeting regulatory complexities; governance, leadership (c) improving and operational systems; (d) ensuring professional management; (e) initiating time-tested structural reform measures, etc. Other critical dimensions of cooperative movement which may require adequate and pro-active attention after due extensive review are - establishing an effective dialogue and coordination mechanism between the central registrar and state registrars of cooperatives; adhering to cooperative principles and democratic values, procedures of transparency, strengthening basic infrastructure including equity structure and diversification; promoting entrepreneurship, branding, marketing, and adopting technology, training, exchange of education, and training of members; formation and promotion of new cooperative societies; and promotion of social cooperatives.

The Ministry's initiatives envisage working as a team with all stakeholders to ensure an effective, all-inclusive, multi-faceted, vibrant cooperative environment from the village level to the national level. The objective is to ensure collective efforts in our endeavour towards a uniform and guick spread of cooperatives across States/UTs. The task may seem difficult, but it is attainable. It demands the determined and collective efforts of the leaders of the cooperative movement and the federal heads. The need of the hour is to extend a common collectivised effort to infuse hope of progress within the members of the cooperative architecture. The vision of Sahakar se Samriddhi will be realised in its true sense if our community business units suitably harness the inherent potential of people's collective action and act in unison in line with the core philosophy of the cooperative-based model of socio-economic progress.

(Views expressed are personal)

STRATEGIC DIVERSIFICATION OF COOPERATIVES AND BUSINESS COMPETITIVENESS

Cooperation is entrenched in the philosophy of India. The clarion call of India's Prime Minister – *Sahakarita se Samriddhi* witnessed creation of the Ministry of Cooperation on 6 July 2021 to provide a distinct administrative, legal, and policy agenda for reviving, reorganising, and modernising cooperatives. The need of the time is to empower cooperatives to compete on par with corporate business entities. In order to remain relevant and competitive, cooperatives from the community level to the national level need to diversify their businesses.

DR MANISHA PALIWAL

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riginated in the last quarter of the 19th century, the Indian cooperative movement registered smooth and impressive progress until the 1970s. Certain issues started crippling the whole movement, and policy makers and planners slowly reduced their focus on cooperation-led socio-economic development.

The inherent growth potential of cooperation needed an immediate and renewed policy attention. At this juncture, for *Sahakarita se Samriddhi*, the Ministry of Cooperation was formed with a renewed focus at cascading the movement down to the grassroots through acts of cooperation. This aims to realise the dream of *Atmanirbhar Bharat*. and to enable the

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PROFIT MULTIPLIER THROUGH BUSINESS DIVERSIFICATION



In Sittilingi – a tribal village of Dharmapuri district of Tamil Nadu, 500+ members joined hands to form Sittilingi Organic Farmers Association (SOFA) as a cooperative society in 2004. With a per capita minimum size of 2.5 acre land holdings, members cultivate ragi, bajra, little millet, foxtail and pearl millet, and cash crops, viz. cotton, turmeric, sugarcane, groundnut, and vegetables. To ensure financial and economic viability of member farmers, SOFA advises crop production as per market demand, ensures that no member grows the same crops, guarantees variety for the end-customers. The members have diversified into production and marketing of millet-based cookies, health-mixes, roasted powders, papads, etc., which is sourced by 40 retail outlets, enabling an outlet turnover of a minimum of Rs 50,000/month. SOFA has diversified into ancillary agri-business too, viz., organic fertilisers and are running plant nurseries and bio-compost units with a collective turnover of Rs 25 lakh a year.

Source: Sittilingi Organic Farmers Association (SOFA, available at https://www.sofasittilingi.org)

members of the cooperatives to make their own decisions and destiny without fear or influence from any outside party. The movement has witnessed the registration of 8.54 lakh cooperative societies with 29 crore members in the country. The need of the time is to empower cooperatives to compete on par with corporate business entities. India's cooperative-led economic model suffered due to several limiting issues, viz. accountability and governance aspects, inhouse vested interests, lack of coordination, political interference, and lack of diversification.

Need for Business Diversification

Any business to remain commercially viable, has to look beyond its primary customers and markets. It has to explore potential markets for new products and services. Without diversification, stagnation sets in, which impedes the business's future growth. Further, strategic diversification forces a business to take steps that can ensure its relevance in the market, as investments made in research and development, marketing, product development, etc., can cause a business to identify customers whose needs are not fulfilled yet and to identify blue ocean markets, enabling it to earn profit and wealth in the long run.

Business Diversification by Cooperatives

An entity is stated to be in business if it is engaged in commercial, industrial, and professional activities with the objective of making profits. A cooperative being a legally incorporated structural entity, follows the in-built principles of cooperation and serves the interests of its members. Cooperatives as business entities, can be profit-sharing enterprises or non-profit entities. They serve their members by providing goods and services that may be unavailable or too costly to access as individuals. A cooperative society needs funds to function. It has





to identify ways and means to finance its activities. To make societies commercially viable and vibrant, strategic diversification is a must. 'Strategy', in the context of corporate entities, refers to its stated 'Visions' and 'Missions'. Strategic decisions are usually in congruence with the visions and missions of the organisation, and they flow downward towards the base levels of the organisation. Thus, in order to remain relevant and competitive, cooperatives from the community level to the national level need to diversify their businesses.

Viable Cooperative Business Strategies

Cooperatives carry out businesses in all sectors. They need to firm up their vision and mission statements and frame the objectives and purposes for which these entities are formed. This information can help develop tactics for object diversification of businesses. Figure 1 examines how a cooperative can diversify itself strategically by analysing five facets of strategic management.

- Initially, a cooperative should decide the exact nature of the goals it has and the various purposes behind which the goals will be outlined for their accomplishments.
- Post-identification of the goals, a tactical understanding of the local situation would be required, followed by an internal and external environment assessment to conduct a Strength, Weakness, Opportunity, and Threat (SWOT) analysis.
- The next step is to formulate a strategy through which the goals can be achieved by means of reflection, prioritisation, and development of options for decision-making purposes. Then

alternative options should be evaluated in order to form a strategy.

- Once the strategy is formulated, the person responsible for its achievement will be given charge of the available and allotted resources, personnel, and ways and means for achieving the strategy. They will have to put the chosen plans into practice, marshal the resources, and identify tactics through which the strategy can be implemented successfully.
- The last step is to monitor the strategy against the agreed timeline/verification pattern to carry out a mid-term/periodic review about the success of activity intervention and take up corrective actions, if any.



Figure-1: Five facets of Strategic Management

Table 1: Diversification Decisions of Cooperatives			
Types	Ways of Diversification		
Product Diversification	Cooperatives can diversify their product/service offerings to meet the needs of new markets or due to change in customer tastes and preferences. For example, Amul – one of India's largest and most successful dairy cooperatives, introduced ice creams and other frozen milk confectionaries in 1996, to spread its businesses.		
Geographic Diversification	Cooperatives diversify their product offerings to reach new markets and customers to satisfy their needs. For example, 'Nandini Goodlife', a milk brand owned by the Karnataka Milk Federation, has been made available across various states in India in leading retailers as part of the strategic objectives of the entity to make its presence felt in various parts of the country.		
Service Diversification	ication Cooperatives offer new services, apart from their primary products and services, to meet the needs of their members and customers. For example, the Anjarakandi Urban Cooperative Bank in Kerela, apart from their primary products and services based on banking, sells coconut-based products such as copra, coconut water/milk/oil.		
Joint Ventures	Cooperatives can form Joint Ventures (JVs) to pool resources and expertise. For example, a cooperative that produces agricultural products could constitute a joint venture with a technology company to develop new precision farming technologies. Indian Farmers Fertiliser Cooperative Limited (IFFCO) – a fertiliser-producing cooperative, formed a JV with Spain's Congelados De Navarra to set up a food processing plant at Ludhiana in Punjab.		
Vertical Cooperatives can vertically integrate by including upstream or downstream activities from their current operations. For example, a dairy cooperative could start producing animal feed. It can be seen in JVs such as the Amreli District Cooperative Milk Producers Union entering into a JV with IFFCO Kisan Sanchar for the supply of high-quality animal feed.			
Horizontal Integration	Cooperatives can horizontally integrate their operations by merging with or acquiring other cooperatives or companies operating in the same industry, which can result in the achievement of significant economies of scale giving various benefits to their customers and		
Analyse the cooperative's strengths and capabilities	cooperative's potential potential diversification budiersification diversification diversifica	re member ay-in and Allocate esources VES	
GAINING COMPETITIVE ADVANTAGE			

Figure-2: Competitive Advantage through Strategic Diversification



WOMEN EMPOWERMENT THROUGH COOPERATION

Mann Deshi – a women-centric micro-enterprise cooperative organisation headquartered at Mhaswad of Maharashtra, was founded in 1997. The objective was to empower rural women by socially mobilising them into women cooperative entrepreneurs through financial literacy, business skill-development. and access to timely, adequate and affordable financial services. Since inception, it has provided loans worth over Rs 2,000 crore and training to over 4,00,000 women entrepreneurs in rural Maharashtra. Through its mobile ATMs, over 300 villages in Maharashtra are now accessing timely credit services. To support women entrepreneurs, it offers various programmes and services – microfinance, vocational training, business development, and market linkages. It has expanded its operations beyond banking to include a rural BPO with over 250 rural women, a community radio station with over 4 million listeners, and it has set up over 50 business schools and training centres. Mann Deshi's impact extends beyond economic empowerment, as it has increased social status and improved access to education and healthcare of its members. This is a pioneering organisation helping to transform the lives of rural women in India by providing them with the ways and means to become successful entrepreneurs and leaders in their communities.

Source: Mann Deshi Bank and Foundation (available at https://manndeshifoundation.org)

Strategic Diversification of Cooperatives

Cooperatives have to decide (as per the model in Figure 1) about the ways for their diversification in order to achieve their strategic objectives as decided by the stakeholders by means of alternative ways of diversification (Table 1). Cooperatives can attain their goals regarding business competitiveness through strategic diversification (Figure 2).

Conclusion

The Minister of Cooperation has repeatedly emphasised the potential of the community-led cooperative economic development model from various platforms. The Union Government has rightly displayed its noble intent to strengthen the existing primary cooperatives, revive the defunct ones, and create at least 2 lakh additional primary level cooperatives in India during the next 4 to 5 years. The Ministry of Cooperation, under the able guidance of the Minister, needs to ensure attaining competitive advantage of cooperatives through strategic diversification. This requires a careful analysis of information about the strengths, mission, and values, as well as involvement and support from members throughout the process of strategic management. By leveraging the unique strengths and capabilities of cooperatives and aligning diversification opportunities with its mission and values, cooperatives can drive growth and competitive advantage in new markets and product lines. Strategic diversification can aid cooperatives in India in growing their customer base, reducing their dependence on specific markets, and better serving their members' requirements. If the cooperatives can meet the demands of markets, they will have a greater chance of being relevant in the target market. In the long run, it may aid in developing strategic advantage and position, thereby helping cooperatives actualise business profits with inclusiveness through strategic diversification of their activities.

(Views expressed are personal)



National Dairy Development Board



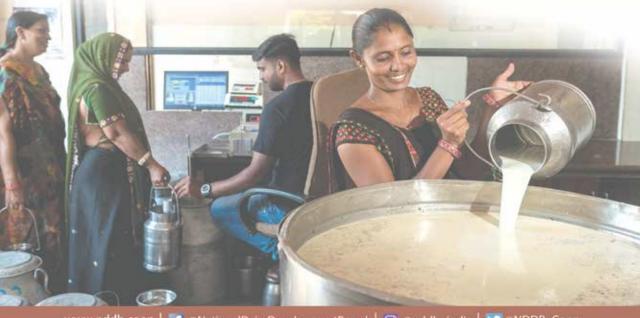
Shri Amit Shah Hon'ble Home Minister and Minister of Cooperation



Shri Narendra Modi Hon'ble Prime Minister

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YOJANA

SPECIAL ARTICLE

EMPOWERING AGRICULTURE CREDIT COOPERATIVES THROUGH DIGITISATION

In the era of fast-paced technological advancements, rural cooperative credit institutions need to maximise the welfare of their farmer members by delivering services beyond conventional credit. Banking services need to be more cost-effective, efficient, faster, and secure. Today, the agricultural lending space has changed drastically, and credit requirements go beyond financing food grain production. This presents a huge financing opportunity for rural credit cooperatives to fund farmer collectives and producer organisations.

ANSHU SINGH

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n India, cooperatives have always played a pivotal role in fostering socioeconomic development. Cooperatives have immense potential to meet development gaps by fulfilling emerging needs and requirements of a nation.

In rural areas, cooperative credit institutions play a vital role in credit mobilisation and agricultural production. The Short Term Rural Cooperative Credit Structure (STCCS) is a threetier structure that comprises State Cooperative Banks (StCBs) at the state level, District Central Cooperative Banks (DCCBs) at the district level, and Primary Agriculture Credit Societies (PACS) at the village level. The objective of this model is to provide timely, adequate, and affordable cooperative credit to the farmer members, and to realise social, economic, and political objectives ranging from self help and grassroot level community participation to production, distribution, and social control over resource allocation and mobilisation.

The farmers are members or owners of PACS. PACS are linked to the nearest DCCBs, whereas DCCBs are members of StCBs. These member-driven and community-based institutions are expected to function in a cohesive manner for efficient doorstep delivery of financial services. These institutions fall under the regulatory purview of the Reserve Bank of India (RBI) and are supervised by the National Bank for Agriculture and Rural Development (NABARD). Presently, there are 34 StCBs with more than 2,000 branches, 351 DCCBs with around 14,000 branches, and around 95,000 PACS, out of which around 65,000 are functionally viable.

Cooperative Credit: Issues and Challenges

The gradual institutionalisation of rural credit witnessed the presence of several commercial banks and microfinance institutions operating through cutting-edge technologies. The rural banking space has become tremendously competitive for cooperatives. Beyond short-term crop loans, the farmers also need a range of services, including financial, advisory, and marketing. The cooperative credit institutions could not compete due to their inability to adopt technology enabled solutions. The immense opportunity of cooperative credit institutions is gainfully harnessed only when suitable technology-led digitisation drive is adopted. Some of the most common issues demanding resolution are— office management systems, transparency, good governance and professionalisation, product innovation speed, service delivery, etc.

Technology Adoption & Cooperative Credit

Technology adoption and process digitisation have a tremendously empowering impact on the cooperative credit architecture. The establishment of the Ministry of Cooperation at the Union level is a step in the right direction towards strengthening the cooperative movement by ensuring exclusive policy interventions and modernisation drives through technology adoption. The digitisation aspect of cooperative banks can be understood in terms of two aspects— Digitisation of STCCS and technology adoption for customer interface, service delivery, and decision-making.



ECOBANet: Ernakulam Cooperative Bank's Network

Launched in 2017, ECOBANet is an integrated technology platform of Ernakulum District Central Coop. Bank (EDCCB) located at Kochi. It brings all credit institutions affiliated to EDCCB on a common tech-based platform. This integrated solution allows grassroot member institutions PACS to provide modern banking services to the members on a real time basis. They can function as technology driven financial service providers whereby, they deliver a range



of services to their members which include Direct Benefit Transfers (DBTs), RuPay Cards, RTGS / NEFT, mobile passbook services, e-commerce services, and account opening services. It allows members to open Aadhaar enabled savings bank and KCC accounts at PACS level itself with real-time monitoring at the DCCB level. ECOBANet has opened a new gateway of digital financial services for rural clients who can experience new-age banking at PACS level itself. The PACS affiliated to EDCCB function as full-fledged banking points thereby deepening financial inclusion levels in their respective areas. ECOBANet is an encouraging example of how technology-enabled platforms can bring better banking experience to rural clients. It also highlights the important role of the bigger credit institutions such as the DCCBs in handholding grassroot-level institutions like PACS in implementing the digital banking solutions and improving work efficiency thereof.

a. Digitisation of STCCS

The StCBs and DCCBs fall under the regulatory purview of the RBI. These have been automated by the Centralised Online Real-time Exchange (CORE) based Banking Solution [CBS]. This helps the banks maintain a single set of books of accounts in electronic form. CBS not only strengthens the regulatory and supervisory mechanisms for cooperative banks but also ensures anytime, anywhere banking for the member clients. While CBS has brought in modernisation and transparency to banking transactions, cooperative banks, especially the DCCBs, are yet to have adequate office management systems.

A robust office management system or Enterprise Resource Planning (ERP) is crucial to managing day-to-day business activities such as accounting, internal audit, project management, service deliveries, human resource, and marketing functions, etc. In many cooperative banks, internal business processes like loan disbursement, performance appraisal, maintenance of office records, etc., are still handled manually, which Source: NABARD, bird-cpec.nabard.org

dampens the efficiency of cooperative banks and hinders business performance. Since most of the issues facing the rural cooperative credit system are common across cooperative banks, standardised technological solutions and office management systems should be adopted by STCCS. Technology enabled internal systems ensure proper administration, governance, and internal monitoring, which will in turn aid in the statutory compliance of the RBI. Common technological platforms and software across STCCS are the need of the hour to bring uniformity to the agricultural credit system across states.

While DCCBs need to deal with the digitisation of business processes, most of the PACS are being computerised. Computerisation is the first step towards digitisation which will ensure the application of CBS and prudential norms at the PACS level, thereby ensuring transparency within the integrated three-tier structure. The PACS computerisation policy of the Government of India, under the active leadership of the Home and Cooperation Minister, envisages increasing efficiency of PACS in delivering credit and other financial services to the farmers. However, the rural infrastructure is still inadequate in terms of interrupted power supplies, internet connectivity, and low levels of computer skills. The problem is further exacerbated by incomplete and inconsistent books and records in PACS. Computerisation of PACS is the fundamental step towards making them efficient. Moreover, the digital integration of PACS with the upper tiers will ensure a robust and transparent agriculture credit system. Besides the availability of computer infrastructure and the internet, adequate support is required for data preparation, data entry, trained and dedicated manpower, customisation of ERPs, etc.

The Ministry of Cooperation, under the leadership of the Home and Cooperation Minister, implemented a Rs 2,516 crore project on the 'Computerisation of PACS'. This initiative will witness computerisation of around 63,000 PACS over a period of 5 years and will enhance service delivery among small and marginal farmers. Subsequently, it will enable PACS to digitise its services and link them with DCCBs and StCBs. This will ensure speedy disposal of loans, a lower transition cost, faster audit, and reduction in imbalances in payments and accounting with StCBs and DCCBs. Data indicates that PACS account for 41 per cent (3.01 crore farmers) of the Kisan Credit Card (KCC) loans given by all entities in the country, and 95 per cent of these KCC loans (2.95 crore farmers) through PACS go to the small and marginal farmers. PACS will also function as nodal centres at panchayat level for the delivery of financial and non-financial services such as Direct Benefit Transfer (DBT), Interest Subvention Scheme (ISS), Crop Insurance Scheme (PMFBY), and inputs like fertilisers and seeds.

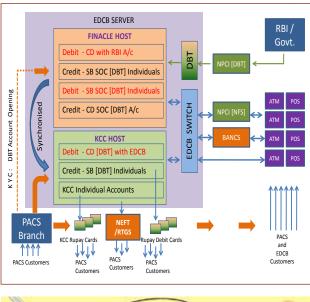
b. Technology adoption for customer interface, service delivery and decision-making

Digitalisation has brought about a sweeping transformation in the banking industry. The digital age is upgrading the way people interact and do business everyday. Technological advancements are influencing the future of banking in the country. In recent years, the Indian economy has become a hub of fintech and agritech revolutions, where several startup entities are serving rural clients through tech-based solutions. As of 2022, India has a vibrant ecosystem of fintech and agri-startups, making it the perfect time for launching innovative financial products. This has also posed a stiff competition to the rural credit cooperatives, especially when it comes to client experience and service delivery.

In the era of fast-paced technological rural cooperative advancements, credit institutions need to maximise the welfare of their farmer members by delivering services beyond conventional credit. Banking services need to be more cost-effective, efficient, faster, and secure. Today, the agricultural lending space has changed drastically, and credit requirements go beyond financing food grain production. India is one of the largest producers of fruits and vegetables globally. The sector needs infrastructure and logistics facilitation and calls for high-end value-chain financing. Similarly, warehouse receipt financing is an emerging area whereby the entire ecosystem comprising the buyer, seller, exchange, warehouse, and bank is integrated into a digital repository and lending system. This presents a huge financing opportunity for rural credit cooperatives to fund farmer collectives and producer organisations.

Many cooperative credit institutions have not been able to implement mobile banking and internet banking services. The cyber security risks and the rate of cyber fraud are comparatively high in cooperative banks due to low investment in system security. Although there are immense benefits to the technological adoption, the costs may not be within the reach of rural cooperative credit institutions. It is therefore desirable to have shared tech resources through a collaborative approach and strategic alliances. For instance, rural credit institutions can establish strategic partnerships with fintechs for customer acquisition, credit profiling of farmers, KYC, dissemination of advisory services, supervision and monitoring of assets, provision of other financial services, development of a digital customer interface, etc.

Another example is using drones to monitor fields, which can improve the efficiency and accuracy of agri-insurance products. With the rapid penetration of smartphones in rural areas, there is a huge opportunity to deliver a better banking experience to the farming community. This could be in the form of digital lending, smart recovery, payment solutions, financial counselling, crop advisory, and grievance redressal through a single digital window. This improves financial access at the member level. Many advanced technologies, like block chain, have the potential to address cyber security risks and bring transparency to cooperative banking operations. Business analytics is another emerging area that can enable cooperative credit institutions to make timely decisions about lending and recovery. The cooperative banks generate a huge amount of data through CBS. However, unlike their private counterparts, they do not leverage data analytics to make informed decisions. Digitisation alone has the potential to empower cooperative credit institutions for better business performance and member engagement. This calls for an organisational willingness to innovate and transform the means and methods of banking.





The Ministry of Cooperation, under the able guidance of Home and Cooperation Minister has charted feasible pathways for providing policy support and guidance to STCSS. The pan-India PACS computerisation initiative has the potential to revolutionise cooperative banking and facilitate the long-term viability of the structure. Computerisation, followed by digitisation, will enhance the service delivery of financial and non-financial products. It will also bring in better administration and good governance to the cooperative banking ecosystem. The StCBs and DCCBs have to take greater ownership of digitisation, and push for it in their respective jurisdictions, and ensure proper handholding at the PACS level.

The proximity of cooperative credit institutions to the farming community, along with their ageold banking wisdom, gives them a huge advantage in the agri-credit space when compared to their commercial counterparts. With the right technology and digitisation, cooperative credit institutions are well poised to serve the changing needs of Indian agriculture. It is important to note that digitisation calls for a complete transformation of the agriculture credit system so that cooperative credit activities are aligned with national priorities such as financial inclusion, sustainable agriculture, and the enhancement of farm incomes. As India heads towards a 5 trillion-dollar economy, the contribution of the rural economy will increase substantially. It is believed that this growth will be led by the agriculture, agribusiness, non-farm, and MSME segments. As the size of the economy grows, so will the size of the financial market. Rural cooperative credit institutions can carve out profitable business propositions and contribute effectively to larger macroeconomic goals. Alongside policy support, technological upgradation can be a big game changer to reposition agriculture credit cooperatives as agents of rural prosperity.

(Views expressed are personal)

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USHERING DEVELOPMENT PATHWAYS FOR NON-CREDIT COOPERATIVES

Non-credit Cooperatives are heterogeneous in nature, and due to their sheer diversity and vast spread across sectors and regions, a 'one-size-fits-all' approach may not be successful for all sectors. To usher in development pathways of non-credit cooperatives, steps need to be taken to ensure convergence, awareness generation, training, mentoring, technological upgradation, and digitalisation.

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eing the largest democracy in the world, it is natural for India to be home to a movement that analogously represents democratisation at the grassroots level. Cooperatives have existed in the archives of the Indian economy for more than a century. As many as 8.54 lakh cooperative societies with a membership of 29 crore people are estimated to be operating in India. The evolution and growth of cooperatives in India vary across States. The difference across States arises due to the diverse focus areas and approaches adopted by the respective State administrative machinery to give an impetus to growth. This is reflected commensurately in the number of registered non-credit Cooperatives in States like Maharashtra, Gujarat, Andhra Pradesh, and Telangana, which is relatively higher vis-à-vis other large States like West Bengal, Uttar Pradesh, Bihar, Odisha, Assam, etc.¹

The success of cooperatives lies in their formation and functioning, especially their characteristics such as voluntary participation, equal representation, professional management, and a greater profit share due to the absence of middlemen. In this context, this paper focuses on the pathways that non-credit cooperatives can follow for their sustenance, growth, development, and increasing competitiveness.

Cooperative Structure in India

The Cooperatives Society Act, 1912; the Mutually Aided Cooperative Thrift Society Act; and the Multi-State Cooperative Societies Act, 2002 form the legal framework of cooperatives in India. There are two types of cooperative structures in the country, i.e., State Cooperative Societies and Multi-State Cooperative Societies. The Multi-State Cooperative Societies come under the Central Government and the State Cooperative Societies under the State Governments. Cooperatives in India primarily, *inter alia*, function in agriculture, dairy, credit and banking, housing, as producer cooperatives, etc.

Self-Help Groups (SHGs) play a more dominant role in Maharashtra, West Bengal, Odisha, and Bihar². Although informal, SHGs may also be considered as rudimentary cooperatives, functioning albeit, at a smaller-scale and generally more focused on relatively disadvantaged groups like women. Large-scale cooperatives, on the

other hand, are commercially more concentrated in terms of products or functions.

Globalisation

It was largely believed that the advent of globalisation would impede the development of cooperatives. However, the success of cooperatives like certain Amul, Horticultural Producers' Cooperative Marketing and Processing Society (HOPCOMS), Indian Farmers Fertiliser Cooperative Limited

The evolution and growth of cooperatives in India vary across States. The difference across States arises due to the diverse focus areas and approaches adopted by the respective State administrative machinery to give impetus to growth.



(IFFCO), Orissa State Cooperative Milk Producers' Federation, Karnataka Milk Federation (KMF), and Kerala Co-operative Milk Marketing Federation (KCMMF) have proved this supposition wrong.

The common thread running through these success stories is the existence of a multi-tier system that helps establish a strong supply chain. Be it for Amul, OMFED (refer to the Box on the next page), or IFFCO, the backbone of a successful cooperative is a well-functioning E2E (end-to-end) supply integration chain involved right from procurement of raw materials, product specification, manufacturing, scheduling, distribution, till delivery of products to consumers.

The success of these cooperatives could also be attributed to diversification of product mix, undertaking technical upgradation of methods and inputs, either at the granular level or in their production facilities, focusing on marketing and expanding their presence, even internationally, and professional management. These stories

only reiterate that in order to thrive, any entity must serve its respective market efficiently and effectively, be well managed, work towards financial viability, and have a long-term vision. The iconic success of certain agriculturalbased and dairy cooperatives signals that cooperatives may have a lot to contribute in foodprocessing, a sunrise sector in the Indian economy.

The Way Forward

Non-credit Cooperatives are heterogeneous in nature,

THE ORISSA STATE COOPERATIVE MILK PRODUCERS' FEDERATION LIMITED (OMFED)

Registered under the Cooperative Society Act, 1962, OMFED's main activities include promotion, production, procurement, processing, and marketing of milk and milk products. Its objective has been to ensure the economic development of rural farming community in the State.

The strength of OMFED lies in its efficiently managed supply chain, which enables it to meet its avowed objectives and the needs of customers. Following the three-tier system originally established by Amul, the Village Cooperative Society represents the first tier. It is



a voluntary association of milk producers in a village who are willing to sell milk on a collective basis to the nearest District Milk Union, which is the second-tier. The committee then selects some more people to act as aides (milk tester, etc.).

The Milk Union transports the collected milk to their processing centres. Milk unions also provide technical inputs (new methods), training, and sometimes even cattle feed and fodder, etc. to the village societies.

The third tier is the Milk Federation, which provides for the processing, packing, and marketing of milk and milk products in the federation dairy. After marketing the products, whatever monetary realisation is achieved is routed back through the supply chain to the producers once every 7-10 days. The Federation has representation from various MUs and also from the State Government of Odisha. The products are marketed by authorised retailers of OMFED throughout the state and Urban consumer is the last point in the milk flow supply chain of OMFED.

OMFED made its presence known in the 1980s when there was no large-scale formal dairy sector in Odisha and the resounding success of Amul had demonstrated the capability of cooperatives. OMFED gave an opportunity to all the small dairy farmers who did not have the resources to set up small dairies but had surplus milk to sell. This led to a rise in their incomes, and the short cash-cycle incentivises them with regular payouts.

Anil Mohapatra, a dairy farmer from Jagatsinghpur district has been supplying milk to OMFED for almost 30 years. He says that since higher quality yields a better price, he pays more attention to the feed and health of his dairy cattle. Farmers are also aided by regular veterinarian visits. He said that due to assured demand and payments, most of the families in the nearby villages have also started keeping dairy cattle to supplement their incomes.

Sources: 1. http://omfed.com/default.asp?lnk=home& 2. Authors' interviews with the dairy farmers

and due to their sheer diversity and vast spread across sectors and regions, a 'one-size-fits-all' approach may not be successful for all sectors. For some sectors, a more focused approach may be necessary. In this context, a historic decision was taken by the Prime Minister in January 2023 when it was decided to set up and promote a national-level Cooperative society for organic products, which is gaining in importance with rising levels of health and environmental consciousness. To usher in development pathways of non-credit cooperatives, steps need to be taken to ensure convergence, awareness generation, training, mentoring, and technological upgradation, and digitalisation.



i. Convergence

The Ministry of Micro, Small and Medium Enterprises, Government of India allows cooperatives to register as MSMEs through online registration on Udyam portal. This opens up many avenues for cooperatives. As per Udyam data, more than 16,000 cooperatives have registered as MSMEs on the portal. A further analysis of the data reveals that the highest number of cooperatives are registered under NIC code 10, which pertains to manufacture of food products. Cooperatives under this code are further engaged in procuring, distribution, processing, warehousing, packaging, etc.

A number of schemes that have substantially benefited MSMEs *en masse* are the Clusterbased programmes. Such schemes provide funds for establishing Common Facility Centres,

Display centres, Processing centres, Recycling/Resource recovery plants, Testing and Quality production centres, Infrastructure development, and soft interventions aiming at skill development. MSMEs benefit in also terms of creating marketing linkages through the domestic Procurement & Marketing Scheme, and the International Cooperation Scheme. Cooperatives engaged in processing and manufacturing can really get a boost in terms of increased quantity and quality of produce through interventions. For such MSMEs, Udyam is almost like

The success of these cooperatives could also be attributed to diversification of product mix, undertaking technical upgradation of methods and inputs, either at the granular level or in their production facilities, focusing on marketing and expanding their presence.



'Know Your Customer'. In this context, authorities may consider Udyam certification as the basic document for cooperatives to avail benefits of programmes instead of any other documentation. This would also be in tandem with the 'Whole of the Government Approach'. One of the most important advantages of such a step of being accorded MSME status would be being covered under Priority Sector Lending.

ii. Awareness, Training & Mentoring

The need of the hour is to make students aware that the cooperative sector can be a full-fledged career option. For this purpose, training needs to be imparted to them. Awareness programmes about cooperatives are required across India for capacitybuilding. Cooperatives can also be linked through the Skill Development Programmes being run by various Ministries and Rural Self-Employment

> Training Institutes for the skill upgradation of their staff/ workers. Soft-skill interventions, currently being done in clusterlevel schemes, can also yield benefits to cooperatives.

> Organising exposure visits for smaller cooperatives to larger Multi-State Cooperatives functioning in similar domains can also be fruitful to help the former emulate similar organisational and operational systems. Smaller cooperatives can benefit from mentoring by larger cooperative. For example, a mentorship programme may be envisioned, wherein, larger cooperatives may provide

intensive partnership, collaboration, and creative cooperation to strengthen State-level Cooperatives engaged in similar activities.

In this regard, the Government of India has announced the formation of (i) National-Level Multi-State Cooperative Seed Society, which would act as an apex organisation for production, procurement, processing, branding, labelling, packaging, storage, marketing, and distribution of quality seeds; strategic research & development; and (ii) a Multi-State Cooperative Organic Society to act as an umbrella organisation for aggregation, certification, testing, procurement, storage, processing, branding, labelling, packaging, logistic facilities, and marketing of organic products. Since cooperatives at all levels will be eligible to join as members, those engaged in similar functions can help contribute and also benefit from being a part of the complete value-chain. This comes across as a perfect emulation of the earlier mentioned success stories, wherein the chosen sectors (where cooperatives have prior presence and experience) are covered end-to-end.

iii. Technology & Digitalisation

It is fairly obvious that unless technology, production, and business models are upgraded and digitalisation of the processes is not pursued in earnest, Cooperatives may not be able to stay relevant and competitive. The handholding from the Government in this regard is available in many forms, ranging from direct subsidies to various credit facilities that may be used for this pursuit. The hard interventions, such as, creating physical infrastructure, may be made available by considering cooperatives as clusters and linking them with relevant cluster schemes.

Concluding Remarks

Though cooperatives have been overshadowed in the growth trajectory of the Indian economy, their relevance in promoting inclusive and sustainable growth remains unguestionable. The tremendous inherent inclusivity within cooperative enterprise development prompted the Prime Minister of India to offer a clarion call - Sahakar se Samriddhi. The creation of a new dedicated Ministry focusing on cooperation and cooperative development indicates the emphasis of the Union Government on community-led socio-economic development in this digitised era. Suitable and timely interventions by the Ministry of Cooperation are expected to address the impediments to the growth of cooperative enterprises and to boost the performance of existing and well-structured cooperatives.

A well-thought-out strategy envisaging an Action Plan through which more and more State cooperatives can be linked or integrated to form multi-state cooperatives in areas where there is ample scope for a large, proactive membership base will ensure sustainable growth.

Endnotes

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- 2. National Rural Livelihoods Mission

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Hyderabad	204, II Floor CGO Towers, Kavadiguda, Secunderabad	500080	04 <mark>0-27</mark> 5353 <mark>83</mark>
Bengaluru	I Floor, 'F' Wing, Kendriya Sadan, Koramangala	560034	080-25537244
Patna	Bihar State Co-operative Building, Ashoka Rajpath	800004	0612-2675823
Lucknow	Hall No 1, II Floor, Kendriya Bhawan, Sector-H, Aliganj	226024	05 <mark>22-</mark> 2325455
Ahmedabad	4-C, Neptune Tower, 4th Floor, Nehru Bridge Corner, Ashram Road	380009	07 <mark>9-2</mark> 6588 <mark>669</mark>

STRENGTHENING COOPERATIVE ENTREPRENEURSHIPS FOR ECONOMIC DEVELOPMENT

A cooperative's ability to succeed depends on the effectiveness of its relationships with its members, management, and leadership. Every stakeholder must be aware of their duties, and the cooperative must maintain open lines of communication with all members and management. Regular training of the cooperative enterprise's members, managers, and leaders is a must for the cooperative's growth. The Union Government, through schematic interventions, has extended support services to strengthen cooperative entrepreneurship in India.

SAGAR KISAN WADKAR

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ooperative entrepreneurship is a form of collective or joint entrepreneurship. 'Cooperative entrepreneur' is nothing but a social leader with a vision to craft robust strategies for managing business affairs democratically, rather than purely for personal gain. Cooperative leaders work with strong determination and commitment, possess the capacity to innovate and 'think outside the box', and have the willingness

to take risks. Members of a cooperative – whether consumers, workers, or producers – are the owners of the business as well as the users of the goods and services. Cooperatives are governed on a onemember, one-vote basis. Democratic governance by members is one of the cooperative model's greatest strengths. Solving community problems, and observing sectoral trends are two effective methods for finding chances for the creation of cooperatives.



Background

The cooperative movement in India has always leveraged social and financial capital for inclusivity and community development. Cooperative movements and entrepreneurship are historically rich and diverse in India. Cooperative entrepreneurship focuses on quality employment generation, wealth creation, and optimum use of available resources at the community level. As member-driven and member-controlled associations of persons, these entities have immense potential to deliver goods and services at the grassroots with intense community business sense, cohesion, and social bonding. In India, cooperatives account for 19% of our agricultural financing, 35% of fertiliser distribution, 30% of fertiliser production, 40% of sugar production, 13% of wheat procurement, and 20% of paddy procurement (NCUI:2018). Looking at the inherent tremendous empowering impact of cooperative movement on the lives and livelihoods of people, the Prime Minister of India advocated Sahakar se Samriddhi – a mantra to usher in a participatory development approach, and created a separate Ministry of Cooperation in India. Under the leadership of Amit Shah - the first Cooperation Minister of India, the Ministry of Cooperation is expected to offer a distinct, effective, and vibrant administrative, legal, and regulatory framework for the development of cooperatives and to promote an innovative and strategic entrepreneurial culture amongst cooperatives, considering the changing contours of the economy of India and the globe.

The success and sustenance of cooperative enterprises and the cooperative movement are directly related to cooperative entrepreneurship. Cooperative entrepreneurship, as it is used in the cooperative sector, is the process by which a group of individuals pool their financial and non-financial resources to start a new cooperative or re-model an existing cooperative in order to meet the socioeconomic and cultural needs and ambitions of the members.

The goal of cooperative entrepreneurship is to infuse strategic management, creativity, and innovation into the operations of cooperative societies. A cooperative society must have dynamic governing structures, qualified, competent, and committed human resources, and cutting-edge management systems in order to achieve the objectives of togetherness.

Throughout the nation, there are numerous cooperative business models that meet the needs of both members and non-members. Sixteen of them have been featured in the 'Turnover over GDP Per Capita' category of the World Cooperative Monitor 2022 (ICA, 2022). This includes, IFFCO (Indian Farmers Fertiliser Cooperative Limited, New Delhi [Rank 1st]; Gujarat State Cooperative Milk and Marketing Federation (GCMMF), Anand, Gujarat [Rank 2nd]; Krishak Bharati Cooperative Limited (KRIBHCO), New Delhi [Rank 3rd]; seven State Cooperative Banks, namely Kerala, Maharashtra, Karnataka, Andhra Pradesh, Madhya Pradesh, Gujarat, and Uttar Pradesh; four Urban Cooperatives Banks: Saraswat Cooperative Bank, Mumbai; TJSB Cooperative Bank, Thane; Cosmos Cooperative Bank, Pune; and SVC Cooperative Bank, Maharashtra; and two primary societies, namely Buldhana Urban Cooperative Credit Society, Maharashtra, and Uralungal Labour Contract Co-operative Society Ltd. (ULCCS), Kerala.

There exists а huge untapped potential to form and nurture cooperatives emerging sectors of in the economy such as manufacturing, services, renewable energy, tourism, handloom, transport, handicraft, health, student/ campus consumer cooperatives, etc. Additionally, the social welfare sector has enormous potential that other kinds of private enterprises generally cannot economically pursue. Cooperatives' unique selling proposition (USP) is the 'primacy of people over profit', which allows them to save expenses via the voluntary engagement of their members.

Cooperative Entrepreneurship

Cooperative entrepreneurship is a form of collective or joint entrepreneurship. 'Cooperative entrepreneur' is nothing but a social leader with a vision to craft robust strategies for managing business affairs democratically, rather than purely for personal gain. Cooperative leaders work with strong determination and commitment, possess the capacity to innovate and 'think outside the box', and have the willingness to take risks. Cooperative entrepreneurship becomes possible when a group of like-minded and right-minded individuals with

The goal of cooperative entrepreneurship is to infuse strategic management, creativity, and innovation into the operations of cooperative societies. A cooperative society must have dynamic governing structures, qualified, competent, and committed human resources, and cuttingedge management systems in order to achieve the objectives of togetherness.

similar needs come together, pool their resources, and decide to work together to make the business venture successful and vibrant.

Members of a cooperative whether consumers, workers, or producers – are the owners of the business as well as the users of the goods and services. Cooperatives are governed on a one member, one vote basis. Democratic governance by members is one of the cooperative model's greatest strengths. The nature of risk and the distribution of surplus in cooperatives are shared more equitably amongst members and shareholders. Whether to start a cooperative, private company, startup, or even a proprietary enterprise, business workable а plan

would be a pre-requisite for the sustainable competitiveness of a cooperative enterprise. The following steps are essential to the entire entrepreneurial process.

Identifying Opportunity

A workable business plan is essential to the entire entrepreneurial process. Solving community problems, and observing sectoral trends are two effective methods for finding chances for the creation of cooperatives. When



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Table 1: Ministry-wise and Sector-wise Schemes for Cooperative Development			
S.No.	Sectors	Ministry/ Department	Schemes Applicable
1	Dairy	Fisheries, Animal Husbandry & Dairying	 Animal Husbandry Infrastructure Development Fund National Livestock Mission Supporting Dairy Cooperatives & Farmer Producer Organisations
2	Fisheries		 Fisheries and Aquaculture Infrastructure Development Fund Pradhan Mantri Matsya Sampada Yojana
3	Handloom and Handicraft	Textiles	 National Handloom Development Programme Handloom Weavers Comprehensive Welfare Scheme Ambedkar Hastashilp Vikas Yojna Handloom Cluster Development Programme - Handloom Mega Cluster Integrated Scheme for Development of the Silk Industry Mega-Integrated Textile Region and Apparel Parks Integrated Wool Development Programme; Power Loom Cluster Development Scheme North-East Textile Promotion Scheme; National Handicrafts Development Programme Handicraft Cluster Development Programme - Handicraft Mega Cluster
4		MSME	 Scheme for Fund for Regeneration of Traditional Industries Solar Charkha Mission; Khadi Gramodyog Vikas Yojana
5		Minority Affairs	• Upgrading Skills and Training in Traditional Arts/ Crafts for Development
6	Health	Ayush	 Central Sector Scheme for Ayurgyan Central Sector Scheme for Conservation, Development, and Sustainable Management of Medicinal Plants National AYUSH Mission
7		Health & Family Welfare	 Pradhan Mantri Ayushman Bharat Health Infrastructure Mission National Digital Health Mission Ayushman Bharat – Pradhan Mantri Jan ArogyaYojana
8		Civil Aviation	Krishi Udan Scheme
9		Tourism	• Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive
10	Tourism & Transport	Heavy Industries and Public Enterprises	Faster Adoption and Manufacturing of (Hybrid & Electric) Vehicles in India Scheme
11	Women, SCs, STs, Tribal, etc.	Tribal Affairs	Programme for Development of Scheduled Tribes (PM Vanbandhu Kalyan Yojana)
12		Social Justice And Empowerment	 Vanchit Ikai Samooh aur Vargon ki Arthik Sahayata Yojana Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi Yojana Scheme for Economic Empowerment of DNT/NT/SNTs Support for Marginalised Individuals for Livelihood & Enterprise
13		Minority Affairs	Nai Roshni Scheme for Leadership Development of Minority Women

14	Environment & Biodiversity	Environment, Forests & Climate Change	 National Mission for a Green India National Coastal Mission
15		New & Renewable Energy	 Bio Energy Programme- Bio Power (Off-Grid) Bio Energy Programme- Biogas Programme (Off-Grid) Programme for Wind and other Renewable Energy Solar Energy: Solar Power (Grid) and Solar Power (Off-Grid)
16	Producers/ Commodity	Food Processing Industries	 Scheme for formalisation of Micro-Food Processing Enterprises PM Kisan SAMPADA (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters)
17		Agriculture & Farmer's Welfare	 National Beekeeping Honey Mission Mission for Integrated Development of Horticulture Mission on Organic Value Chain Development for North Eastern Region
			Source: Author's Compilation from www.indiabudget.gov.in



cooperatives are founded in reaction to a market failure, this is referred to as "solving problems." Entrepreneurs may reproduce a successful approach in cooperatively underdeveloped areas as per sectoral trends.

Organisational Design

Once the initial promoters and leaders have demonstrated that a business idea has commercial potential, the next step is to define organisational design with the following aspects:

- Purpose: Clearly delineate aims and purpose, stating the need that the enterprise is meeting (for members and customers) as central to the purpose.
- Shared objectives: The founding members and promoters should agree on the objectives set for the cooperative.
- Ownership structure: Clarity should come on membership types of the co-operative (for example, workers, customers, and community),

methods of identifying or classifying members (for example, through purchasing shares), and asset ownership types (commonly or jointly owned)

- Democratic Governance: Systems of governance should be clearly outlined – for example, involvement of members in the cooperative's governance (voting at meetings and Annual General Body Meetings (AGMs), selection of the board of directors, modalities of decision-making at the board's weekly, or monthly meetings, etc.
- Distribution of Surplus: The organisation needs to define members' entitlements out of the cooperative's surplus, methods to participate in business decisions, devise a compensation structure, maintain reserves, invest surplus funds into the cooperative, etc.
- Membership: Clarity is required on the members, their relationships with the cooperatives, the procedure for joining a cooperative, and the drives behind seeking membership.

Consideration is required for how the cooperative interacts with its various stakeholders, including the community, environment, employees, consumers, and suppliers.

 Capital Requirements: The source of financing needs to be defined, viz., money from members in the form of shares or loans, loans from specialised co-operative funds, grants from cooperative development organisations, loans from commercial lenders, etc.

Feasibility Study & Business Planning

Before moving further with the creation of a business strategy, the cooperative promoters' team must conduct a feasibility study or analysis. A target market study can be conducted, which includes market size, customer segmentation, competition analysis, potential consumers' tastes and preferences, and current market trends. The business planning exercise needs to consider the following:

- Strategic Review of Purpose and Objectives
- Marketing plan
- Operational plan the way resources will be generated and used
- Products and Services Portfolio the way revenue will be generated, management of costs and investment to be made.
- Capital Mobilisation

Choosing a suitable legal form for a cooperative is the next step in the entrepreneurial process. The promoters may contact the Registrar of Cooperative Societies (Central or States) if it is a multi-state or state-level cooperative society.

Managing and Leading

The board of directors' or leaders' role is crucial at this point in the entrepreneurial process to make sure that the cooperative stays loyal to its mission and objectives and uses its resources effectively to address members and communities needs and aspirations. A cooperative's ability to succeed depends on the effectiveness of its relationships with its members, management, and leadership. Every stakeholder must be aware of their duties, and the cooperative must maintain open lines of communication with all members and management. The board of directors must examine cooperatives financial position and investments and maintain strict financial controls over cooperative societies. They must guarantee the upkeep of statutory registers and books of records and work tirelessly to spot commercial prospects.

Education and training have been key aspects of the cooperative movement, as enshrined in the cooperative identity. Regular training of the cooperative enterprise's members, managers, and leaders is a must for the cooperative's growth.

The Union Government, through schematic interventions, has extended support services to strengthen cooperative entrepreneurship in India. A number of such programmes that directly or indirectly support large-scale cooperative enterprises are listed in Table 1.

Conclusion

Cooperative entrepreneurship is the commercialisation of a continuous stream of innovation in a network of connected enterprises by combining underutilised resources with untapped market prospects. When the independent firms and societies in the network work together, the focus is on value creation through ongoing innovation rather than value distribution. There is a lot of trust among members of the community of networked enterprises since they view ideas as a common resource and work together to maximise capabilities.

The Government of India's overarching goal in assisting the cooperative movement is to increase job opportunities, promote self-reliance, and lessen instances of hunger and poverty. Therefore, the cooperatives must follow the principles of just and equitable socio-economic development as oft-quoted by none other than the first Union Cooperation Minister – Amit Shah.

It's critical to provide a platform for discussing issues and potential solutions, exchanging ideas, promoting business alliances, and inspiring young people and women to pursue careers in cooperative entrepreneurship. Young people and women need to be taught cooperative identity, values, and principles while developing strong business strategies and marketing their products and services.

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ATMANIRBHAR BHARAT THROUGH COOPERATIVES

Cooperatives are the purest and natural form of economic and business enterprise, synergetic with the resources bestowed by Mother Nature. In cooperative enterprises, people can reach economic objectives by joining forces and pooling their resources, which an individual would be unable to achieve. Agricultural support and food security programmes entail heavy financial and governance burdens for the Government. India's strong cooperative roots and strategic focus on the agricultural sector provide enough justification for the Government to move out of the front line of food production and food security management and hand it over to the farmer cooperatives.

DINA NATH THAKUR

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ooperation' has remained the philosophy of India, and the cooperative movement is the backbone of the rural economy. Presently, around 29 crore people in the country are directly linked with India's cooperative sector.

Cooperative societies, particularly, in agriculture, dairy, and fisheries sectors, provide rural population not just with livelihood opportunities but also with financial safety net with a community-based approach.

The entire cooperative fraternity rejoiced when the Prime Minister of India gave a call, – 'Sahakar se Samriddhi' and accordingly decided on 6 July 2021 to create a separate ministry for the development of the cooperative sector. It signalled the intention and deep commitment of the Government of the day for promotion and development of the cooperative



sector in the country. This also demonstrated that cooperatives are seen by the Government as the most appropriate alternative model through which the country can realise its dream of becoming an all-inclusive economy and realise the vision of Atmanirbhar Bharat.

Socio-Economic Empowerment Effects of Cooperation

Cooperatives are the best instruments of social and economic policy and programme implementation as they have inherent advantages in tackling the problems of poverty alleviation, food security, and employment generation. These have immense potential to deliver goods and services at the doorstep without any hassles, as they are people-centered citizen organisations.

In cooperative enterprises, people can reach economic objectives by joining forces and pooling their resources, which an individual would be unable to achieve. Cooperative enterprises can facilitate and ensure market access, create economies of scale and scope, and establish independent market positions. As a consequence, they are capable of leaving a positive mark on a country's economic and social structures.

Cooperatives, Agriculture and Food Security

India needs novel ways to achieve farm prosperity and sustainable food security. In order to achieve this, transformative and disruptive changes, and innovation at every point along the food production, supply, and consumption chain are required. We need innovative systems that conserve, protect, and enhance the natural resource base while increasing productivity. It requires a transformative process towards 'holistic' approaches that also build upon indigenous and traditional knowledge, and recognise the importance, centrality, and criticality of community-based institutions like cooperatives. Farmers have to be actively and effectively engaged through their own cooperatives to enhance soils and protect biodiversity while improving crop resilience, productivity, and livelihoods. We must deploy naturebased solutions to support agricultural production while helping to regenerate ecosystems.

Agricultural support and food security programmes entail heavy financial and governance





burdens for the Government. India's strong cooperative roots and strategic focus on the agricultural sector provide enough justification for the Government to move out of the front line of food production and food security management and hand it over to the farmer cooperatives. The Government should recognise that cooperatives are the most appropriate institutions to contribute to and address some of the identified priority areas of concern, like food security, employment, poverty reduction, and financial inclusion. The biggest and most important strength of India lies in its people, particularly in its millions of farmer families. India can achieve any goal by combining the strength of its farmers with professional management.

Sahakar Grams – The Future

As a step in this direction, it could be suggested that the Government, through appropriate policies and incentives, encourages farmers to organise themselves into cooperative folds, and every village in the country should be encouraged to move towards 'Atmanirbhar Sahakar Grams'. The concept of 'Sahakar Grams' is for shifting the gravitational forces of agriculture development and food management to the villages and farmers. Under this approach, the farmers will be encouraged to pool their natural and economic assets to ensure their efficient and sustainable use, preservation, and conservation. Rational and efficient management of land, water, and cattle resources would ensure that there is no wastage and chemical inputs are used only when there is no alternative.

A Case for Creating National Cooperative Food Grid

The Government can explore moving towards setting up a 'National Cooperative Food Grid (NCFG)'. Every Indian village should have one agriculture cooperative to run and manage its entire economic activities on cooperative principles. This will reduce production costs and improve productivity. Every village level cooperative should be equipped with farm machinery and a cattle management centre. Two or three such village-level cooperatives should jointly promote one Multi-Purpose Village Cooperative Society (MPVCS) with storage, sorting, grading, packaging, and trading facilities for perishables and non-perishables. This MPVCS should also be able to provide credit facilities to its members and run green energy, tourism, consumer, health, and education, including vocational training centres. MPVCS should also be designated as the sole agency for running food security programmes of the Government. The recent initiative of the Ministry of Cooperation regarding the creation of 2 lakh additional multi-purpose cooperatives at the community level would be a great step towards achieving self-reliance in India by following a bottom-up approach.

Every grain of food produced in the village should flow to NCFG through these cooperatives. This will completely eliminate food loss and wastage. The entire produce of the member farmer should be



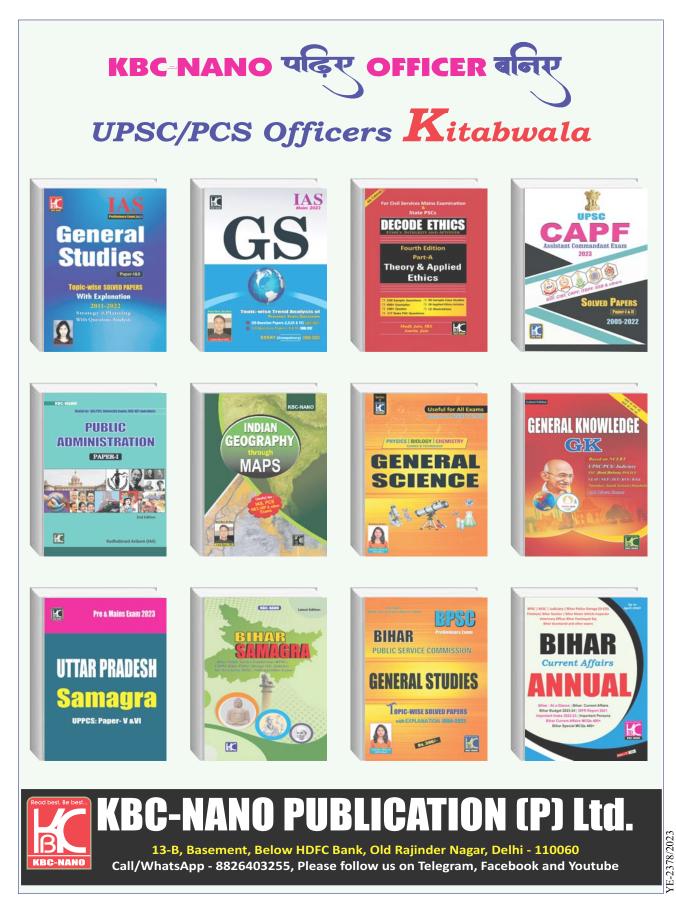
collected by the village cooperative and taken to MPVCS, which will immediately credit the value of the produce at Government-determined rates to the member's account. In cases where Governmentdetermined rates are not available, the best market rates may be given to the members. If any member does not want to sell his produce immediately then he can advise his cooperative accordingly. A farmer must be empowered to have his 'choice', 'voice', and 'price'. MPVCS may also stock the grain for operating food security programmes and be paid appropriate charges by the Government agencies for this purpose.

If the entire country is organised around this concept, then we will have around 7 lakh village agriculture cooperatives and around 3.5 lakh MPVCS. National Cooperative Food Grid (NCFG) may be created by digitally connecting the entire network of village-level cooperatives and MPVCS. I am of the view that NCFG can help India save around Rs 3 trillion annually by lowering the cost of food production and rationalising expenditure on food security programmes of the Government. NCFG will also generate enormous employment opportunities in rural areas and trigger a new wave of rural development.

NCFG may be complimented by setting up a dedicated 'National Rural and Farm Prosperity Fund (NRFPF)' for providing financial support to the movement for self-reliant and selfsustainable 'Bharat' through cooperative valuebased enterprise. With an innovative and creative approach, the required resource support for NRFPF and NCFG can be easily found within the existing budgetary allocations. If the financial assistance provided by the Government and corporates are used efficiently and judiciously, then this can become an important instrument for economic and social welfare that will not destroy the dignity and self-confidence of its citizens.

Efficient agriculture production system management, food security, and food supply chain management, energy security through clean and green routes, preserving natural resources, mitigating adverse effects of climate change, and protecting and preserving social harmony are the main future challenges for the country, and this is where enormous opportunities lie for cooperatives. Cooperatives are the most appropriate institutional form for harnessing these opportunities, and a true cooperative value-based entrepreneurial initiative can never fail, whatever the overall economic and market condition be. It is to be internalised on what a miracle an efficient member-driven cooperative can do, and that only through such cooperative exploitation of all types would stop and we would witness all-around prosperity. The route for 'Developed and Atmanirbhar Bharat' essentially passes through its people, villages, rivers, agricultural land, natural resources, and deep and strong cooperative roots.

(Views expressed are personal)



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INNOVATION AND TECHNOLOGY FOR MAKING INDIAN COOPERATIVES FUTURE-READY

Cooperatives have the capability to effectively manage technologydriven projects viz., solar and wind renewable energy projects. India has 8.5 lakh cooperative units, of which 20 per cent are credit cooperatives. An invention encourages the innovator to observe, orient thoughts, and develop new ideas. These ideas need to be translated into action so that a new product, a new process, and/or a new service could be introduced to improve a business or even the quality of life. Currently, the best business processes are digitally enabled. Digitally enabled Web 4.0 and Industry 4.0 are a few of the innovations designed to provide benefits through machine learning, artificial intelligence, virtual reality, augmented reality, and digital twins.

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t is often debated whether to promote a cooperative as a form of business organisation when other forms of business enterprises exist in society. A cooperative meets local business governance and strives to address marketing risks and livelihood challenges through a collectivised approach. The philosophy is that these individuals, having come together with a similar setup, can aggregate their resources to stay competitive in the market. The International Cooperative Alliance (ICA) defines cooperative as an organisation that is formed, controlled, and managed by its members. These members joined voluntarily. It is also an enterprise that strives to meet collective member aspirations through economic activities while retaining a social and cultural ethos. Basically, the major distinction between collectives, such as cooperative forms of



organisations and other forms of businesses is:

- Persons who own and finance the cooperative are those who use it.
- Control of the cooperative is by those who use it, and,
- Benefits of cooperatives are distributed to their members based on their use and contributions.

Cooperative forms of organisations can be found in many economic sectors such as retail, housing, utilities, handicrafts and they are more prominent in the farm sector.

Spread and Outreach of Cooperatives

Globally, more than 12 per cent of the world's population is part of any of the 3 million cooperatives in the world. The largest 300 cooperatives and mutuals report a total turnover of 2,146 billion US dollars (USD), according to the World Cooperative Monitor (2022). Cooperatives provide jobs or work opportunities to 280 million people across the globe, which is 10 percent of the world's employed population. As per ICA reports, more than 1 billion cooperatives worldwide. As per the ILO, more than 50 per cent of the global agricultural output is marketed through cooperatives.

In developing countries, cooperation is seen through cooperatives, where formal and informal

processes bring domestic workers, construction workers, and street traders together to form selfhelp groups. Such groups, like cooperatives, also have the provisions to access productive inputs, manage and own processes, access product markets, and govern themselves. Cooperatives are also seen in urban areas. Cooperatives, though local, have grown enough to become world leaders like Mondragon, Indian Farmers Fertiliser Cooperative (IFFCO), Krishak Bharati Cooperative Limited (KRIBHCO), and Gujarat Cooperative Milk Marketing Federation Limited (Amul), incorporating best practices through technology induction, market orientation, and branding. Global value chains are seen in cooperatives, especially in coffee, cocoa, cotton, and fisheries. Cooperatives have the capability to effectively manage technology-driven projects viz., solar and wind renewable energy projects. India has 8.5 lakh cooperative units, of which 20 per cent are credit cooperatives. The remaining 80 per cent are non-credit cooperatives involved in diverse activities, viz. Fishery, Dairy, Producer, Consumer, Industrial, Processina, Marketing, Tourism, Hospital, Housing, Transport, Labour, Farming, Service, Livestock, Multi-purpose Cooperatives, etc.

Innovation, Technology & Entrepreneurship in Cooperatives

A business enterprise is always market-

influenced irrespective of its legal affiliations, and cooperatives are no exception. Innovation and entrepreneurship, as well as adopting proven business models and appropriate technologies, are the continued strategies of business enterprises. It is essential to understand if these strategies could be ideal for cooperatives. To appreciate the relevance, let us know how these dimensions could contribute. It is argued that innovation will succeed invention. An invention encourages the innovator to observe, orient thoughts, and develop new ideas. These ideas need to be translated into action so that a new product, a new process, and/or a new service could be introduced to improve a business or even the quality of life. Thus, we can say innovation can be for a product, process, or a service. In addition, innovation can have social, economic, and valueadded dimensions.

The role of technology in managing innovation and entrepreneurship is globally acknowledged. Currently, the best business processes are digitally enabled. Digitally enabled Web 4.0 and Industry 4.0 are a few of the innovations designed to provide benefits through machine learning (ML), artificial intelligence (AI), virtual reality (VR), augmented reality (AR), and digital twins. The Industry 4.0 market has been growing rapidly and is expected to reach USD 156.6 billion by 2024, at a CAGR of 16.9 per cent from 2019 to 2024. Blockchain technologies are growing phenomenally as well to support

transparent transactions though it is still premature. Enterprise resource planning (ERP) is another market that introduces technologies to support a supply chain or such a network.

Entrepreneurship is either innovation-driven or micro, small, and medium driven-approach. In either а policy push case, is Innovation-driven essential. entrepreneurship (IDE) and MSME need a policy push to moderate the risk of entry into and exiting the market. Entry barriers include the initial cash crunch facing the entrepreneur to launch

The International Cooperative Alliance (ICA) defines cooperative as an organisation that is formed, controlled, and managed by its members. These members joined voluntarily. It is also an enterprise that strives to meet collective member aspirations through economic activities while retaining a social and cultural ethos.

the product service, manage internal assets until revenue starts generating from the effort. The exit barriers depend on the type and form of assets and the market they have created. The start-up policy of the Government of India (GoI) aims at supporting the IDE segment through a well-planned entry and exit barrier addressal mechanism. For the MSME segment, the GoI has UDAAN and GeM portal-based policy-driven support. Also, the GoI has an e-NAM scheme to support farm-based entrepreneurs (IDE and MSME).

Technology-driven entrepreneurship needs an ecosystem for scaling up and translating various market-feasible technological innovations by promoting entrepreneurship and innovation led enterprises. Such efforts need focus to bring about inclusive socio-economic development by addressing the challenges associated with a specific region, industry, or cluster through networks that translate into economic gain and wealth creation. These enterprises should be able to generate good societal and market acceptance. The entrepreneurial enterprises would subsequently be competent to translate the identified innovative solutions by tapping market opportunities and aligning with an appropriate business model. The value-added products and services of these enterprises should reach their end-customer at an affordable price to have good market outreach.

Cooperatives, especially major brands, have

been leaders in adapting today's fast-changing to business environment by leveraging the benefits of technology, innovation, and entrepreneurship. Conventionally, cooperatives operate in a three-tier structure (primary, intermediary, and apex), aggregate the demands of their members, and provide such services. By nature, and design, cooperatives face all the challenges of the IDE and MSME segments. Cooperatives emerge through social and economic innovations. Each member of the cooperative generates products and/or services depending on the available skill set. The member is often stressed by livelihood challenges and is looking for immediate answers to entry and exit barriers. A cooperative needs to look after these individual members and provide support in meeting such challenges. While attempting to meet member demand, the cooperative itself faces the challenge of inventory holding due to the aggregation of products and services available at its disposal. Such inventory holding cost is a matter of concern since a member is not well skilled to predict and/or market such inventory volumes. This necessitates ensuring market absorption of these products and services with the least delay. To address this challenge, cooperatives of similar types come together to form a union to ensure hassle-free service flow across the stakeholder cooperatives and to ensure the members of its cooperatives are free from market risks. The union goes into the cycle of innovation, technology-induced processes, and managing market risks. It invests heavily to ensure complex value additions for the benefit of the member cooperatives. There is scope for further clustering of unions by forming a cooperative federation to consolidate the market, brand, and outreach.

Case of a Typical Cooperative in Dairy Sector

The cooperative in the dairy sector in India follows a three-tier structure. The first layer is the producer cooperative formed by dairy producer members. The producer members receive inputs from society. The society with the support of the union, studies the input markets and the needs



of the members with much caution and generate critical insights to ensure sustained milk production through these producer members. These producers engage themselves in the process with the help of family members, and cattle are the production units. The herd size makes the business more complex for the producer household as well. Thus, it is important to note the business complexities, and the business units are treated at par with any generic strategic business unit (SBU). The role of information and communication technology (ICT) is quite helpful in locating markets and market prices for these input services. Currently, the unions are using ML, AI, and business analytics to discover member needs proactively. Producers receive input services like cattle, fodder, cattle feed, animal health care, insurance, and animal husbandry services. In this layer, the producer operates as a customer for the cooperative, and the cooperative shields members from market pressure, thereby playing an important role in influencing the cost of milk production at the producer's place. Today, cattle feed plants, fodder management services, bull rearing centers, artificial insemination services are a few of the initiatives that are adding tremendous value to the chain. This is the base line for any dairy value chain. Post-production by members, the cooperative looks after the milk pooling point for the producers. Today, technology-enabled services are planned to provide this facility at the doorstep of the farmer while ensuring transparent transactions. Automatic Milk Collection Units (AMCUs) are now based on matured technologies

having capabilities to support transparency in transactions and ensure quality control. Robotics and internet of things (IoT)-based milking machines are used today to reduce drudgery and ensure timely information on the volume and quality of milk being milked at the producer's premises. The cooperatives are also equipped with IoT-based bulk milk chilling units (BMCUs) and some with chilling centers to store and forward the milk collected without compromising quality concerns.

The second, and layer are the cooperative union. The union takes over the milk stored by the cooperatives by establishing supply chain and logistics models which are now ICT- enabled. These ICT-based models aim to optimise the cost of transportation through route planning. The union also knows in advance the milk volume stored at the BMCUs to plan the size and movement of tankers. Various **ICT-enabled** services in particular are also available, including AMCUs, BMCUs, chilling centers, tankers, supporting milk collection and billing for producers, linking global positioning systems (GPS) and general packet radio services (GPRS)enabled services. At the level of union, the processing units

Technology-driven entrepreneurship needs an ecosystem for scaling up and translating various marketfeasible technological innovations by promoting entrepreneurship and innovation led enterprises.

are grossly embracing advanced technologies, including robots, to make value-added products while maintaining quality assurance standards and implementing cost optimization strategies. The unions have emerged strongly in various forms, like milk producer unions under cooperative structures and producer companies under producer company acts. Most importantly, with the support of industrial internet of things (IIoTs) and back-end enterprise resource planning (ERP), the unions increase process efficiency and productivity in the dairy sector. Supply chain efficiency has also improved because of sensor-based tracking of supply chain movements, inventory planning, and forecasting. Ultimately, the benefits of cost optimisation and resource planning are in favour of the small producer member.

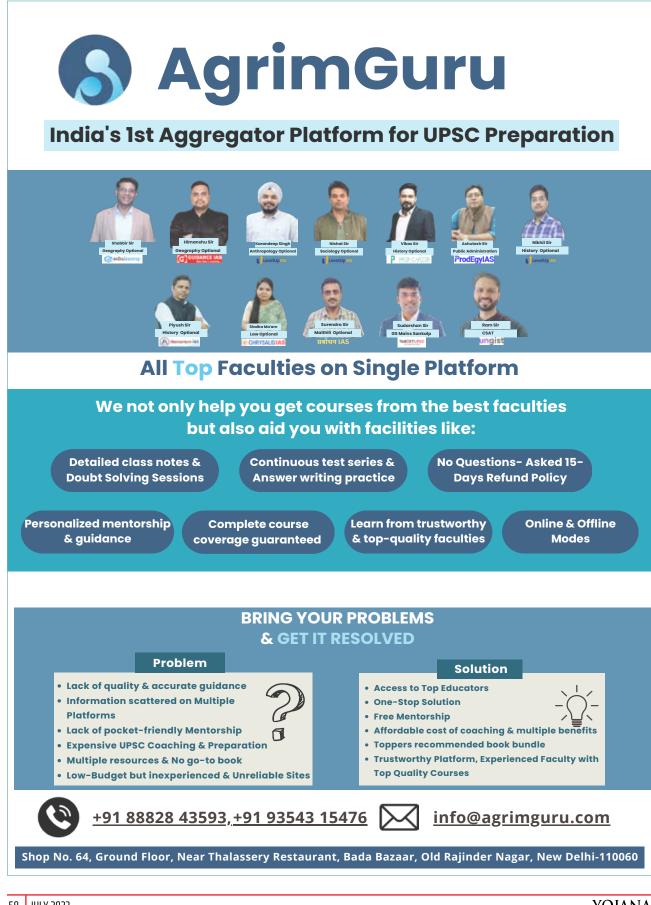
The third layer of the dairy cooperative sector in India is the federation. The federation emerges as a larger umbrella to make the dairy cooperative unions future-ready through continuous processes and market innovation. The federation aims to find ways and means to understand market behaviour, manage economies of scale and scope, and compete in the market. This approach involves the acquisition of business intelligence (BI) for the federation.

Conclusion and Way Forward

Science, Technology, and Innovation (STI) which are entrepreneurship-driven, are the key drivers for economic growth and human development. For India to march ahead on a sustainable development pathway based'Atmanirbhar Bharat', it must include economic development, social inclusion, and environmental sustainability. While doing so, there is a need for a greater emphasis promoting on traditional knowledge systems, developing indigenous technologies, and encouraging grass-roots innovation. The emergence of disruptive and impactful technologies poses new challenges and, simultaneously, greater opportunities. Cooperatives have the potential to support these dimensions.

The new Science, Technology, and Innovation Policy aims to bring about profound changes through short-term, medium-term, and long-term mission mode projects by building a nurtured ecosystem that promotes research and innovation on the part of both individuals and organisations. It aims to foster, develop, and nurture a robust system for evidence- and stakeholder-driven STI planning, information, evaluation, and policy research in India. The policy will identify and address the strengths and weaknesses of the Indian STI ecosystem to catalyse socio-economic development of the country and also make the Indian STI ecosystem globally competitive. The Digital India Policy (DI) has supported channelling digital services through Common Service Centres (CSCs). The intervention of the Ministry of Cooperation in converging CSC services with those of PACS is a major step forward. The national cooperative database is an emerging platform for effective use of ML, AI, BI, and digital twin services to benefit cooperatives. The emergence of dashboards will also have the potential to support policy decisions. The GEM portal, e-NAM, and related services, including funds for training and infrastructure, have the potential to converge with the national cooperative database. Cooperatives as aggregators should come forward and leverage the benefits of the supporting policies for improving their productivity by being a part of the modern technology innovation revolution. It is now time to consider cooperatives as strategic business units that are central to a nation's growth and sustainable development.

(Views expressed are personal)



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Geography

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A BLUE OCEAN FOR ECONOMIC DEVELOPMENT

B K MISHRA

The author is holding the charge of MD, National Federation of Fishers Cooperatives Ltd. Delhi and is an expert in the operation and governance sphere of fishery cooperatives in India. Email: bimalk1234@hotmail.com

The Fisheries sector is quite diverse with sub-sectors like marine, inland, and brackish water, besides cold water and ornamental fisheries. With the establishment of the Ministry of Cooperation, the momentum for the fishery cooperative movement in the country picked up in 2021 and since then, they have received priority attention and real focus. The role of fishery cooperatives must be considered at every level in the changed economic scenario, and they should be supported with funds to develop infrastructures and a progressive supply and value chain for sustainability. The Government of India is committed to uplift the fishery cooperative sector through adequate policy and financial support.

isheries is a sunrise sector in India. It has immense economic potential in India that has a coastline of over 8,000 km, an exclusive economic zone of over 2 million square km, and with extensive freshwater bodies stretching the length and breadth of the nation. India is the 3rd largest fish-producing country in the world, contributing 7.93% towards global fish production, and is the second largest among the aquaculture fish-producing countries globally. The fisheries sector plays an important role in the Indian

Economy. It contributes to around one per cent of the national GDP. It is moving at a fast pace, contributing not only to the national income but also to India's exports, food and nutritional security, and employment generation. It provides livelihoods to more than 2.8 crore fishers and fishfarmers. India is endowed with bounties of water resources in both the marine and inland sectors including brackish and cold water, and it boasts a significant population of skilled manpower. The country has annual export earnings of over Rs 50,000 crore from the fisheries sector.



Fishery Development: Government of India's Thrust

To boost India's economy through the fisheries sector, the Pradhan Mantri Matsya Sampada Yojana (PMMSY) was launched in the year 2019-20 with a total project outlay of Rs 20,050 crore by the Ministry of Fisheries, Animal Husbandry and Dairying. A dedicated Rs 7,522 crore Fisheries & Aquaculture Infrastructure Development Fund (FIDF) was created in the year 2018-19. The Government also initiated the Blue Revolution in 2014, boosting not only fish production but also infrastructure development in the fisheries sector. To make Atmanirbhar Bharat successful in the sector, many beneficiary-oriented schemes have been introduced, focusing on entrepreneurship. The momentum for the fishery cooperative movement in the country picked up in 2021 with the establishment of the Ministry of Cooperation. It was a landmark decision by the Government of India for strengthening and empowering the Cooperatives and their members to become drivers for economic development.

Fishery Cooperative Movement in India

The fishery cooperative movement in India began as early as 1913, when the first fishermen's society was organised under the name of 'Karla Machhimar Cooperative Society' in Maharashtra. Over the course of 110 years, the Indian fishery cooperative movement has reached all States with different tier structures but its full potential is yet to be tapped.

A total of 24 States/UTs each have a Statelevel Fishery Federation. Only three States have 6 regional federations. 126 districts have district-level fishery federations. In all, there are 27,391 primary fishery societies in India with 39.57 lakh fishers as members. Per society membership has been an average of 144 fishers. Primary fishery societies with more than 500 members were found in Puducherry,



SN	State / UT	Number of Societies (level)			% of Primary	No. of	No. of Farmer
		State	District	Primary	Society to Total	members	members per society
1	Andhra Pradesh	1	13	2,810	10.26	2,86,410	102
2	Arunachal Pradesh	-	-	11	0.04	230	21
3	Assam	1	2	520	1.90	90,000	173
4	Bihar	1	5	528	1.93	4,10,007	777
5	Chhattisgarh	1	5	1671	6.10	55,685	33
6	Goa	-	-	26	0.09	1,503	58
7	Gujarat	1		701	2.56	94,893	135
8	Haryana	-	-	124	0.45	1,276	10
9	Himachal Pradesh	-	-	62	0.23	9,742	157
10	Jharkhand	1		520	1.90	32,635	63
11	Karnataka	1	-	714	2.61	4,82,115	675
12	Kerala	1	-	985	3.60	4,60,486	467
13	Madhya Pradesh	1	-	2,734	9.98	96,817	35
14	Maharashtra*	1	36	3,775	13.78	3,32,636	88
15	Manipur*	1	3	800	2.92	14,258	18
16	Meghalaya	1	-	128	0.47	611	5
17	Mizoram	1	1	47	0.17	1,656	35
18	Nagaland	1	-	370	1.35	9,234	25
19	Odisha*	1	-	775	2.83	1,54,318	199
20	Punjab	-	1	9	0.03	95	11
21	Rajasthan	1	1	137	0.50	4,130	30
22	Sikkim	-	-	8	0.03	230	29
23	Tamil Nadu	1	12	1,475	5.38	7,61,521	516
24	Telangana	1	-	5,200	18.98	3,64,357	70
25	Tripura	1	-	308	1.12	22,967	75
26	Uttar Pradesh	1	23	1,125	4.11	54,521	48
27	Uttarakhand	1	1	167	0.61	634	4
28	West Bengal	1	20	1,433	5.23	1,31,578	92
29	A & N Islands	-	1	129	0.47	4,149	32
30	Daman and Diu	-	-	19	0.07	3,176	167
31	Lakshadweep	-	-	6	0.02	2,910	485
32	Jammu & Kashmir	-	1	6	0.02	162	27
33	Puducherry	1	1	67	0.24	72,162	1077
34	Ladakh	-	-	1	0.00	21	21
	Total	24	126	27,391	100	39,57,104	144

(Source: FISHCOPFED Data Bank- Data collected from concerned States/UTS)

Note: *In India, there are 9 Regional Fishery Federations. Odisha, Maharashtra and Manipur have 6, 2 and 1 regional fishery federations, respectively.

Tamil Nadu, Karnataka and Bihar. There were only 10 States/UTs, Assam, Bihar, Karnataka, Kerala, Himachal Pradesh, Odisha, Tamil Nadu, Daman & Diu, Lakshadweep, Puducherry] where the membership per society was recorded higher than the national average of 144 per society (Table 1).

Role of Fishery Cooperative Federation

The National Federation of Fishers' Cooperatives Ltd. (FISHCOPFED) is the apex and national level cooperative organisation for the development of the fishery cooperative movement in India. Registered in 1980, the federation started its operation in 1982 and now has 104

member institutions all over the country, including the Ministry of Fisheries, Animal Husbandry, and Dairying, Government of India, and the National Cooperative Development Corporation (NCDC).

FISHCOPFED is dedicated to the empowerment of fisheries cooperatives in the country. It is a member of the International Cooperative Alliance and also a member of the International Cooperative Fisheries Organisation (ICFO) and Network for Development of Agricultural Cooperatives in Asia and the Pacific (NEDAC). FISHCOPFED is engaged in various promotional and welfare activities in

To boost India's economy through the fisheries sector, the Pradhan Mantri Matsya Sampada Yojana was launched with a total project outlay of Rs 20,050 crore by the **Ministry of Fisheries**, **Animal Husbandry** and Dairying. The Government also initiated the Blue Revolution in 2014, boosting not only fish production but also infrastructure development in the fisheries sector.

fisheries sector besides fish marketing in several states as a retailer and wholesaler for the ease of primary fishery cooperative societies. This in turn provides hurdle-free marketing channels and gives sellers a better price for their produce.

National Database of Fisheries Cooperatives

With the establishment of the Ministry of Cooperation, fisheries cooperatives have received priority attention and real focus. A decision has been taken under the guidance of the country's first ever Cooperative Minister, Amit Shah, to organise fishery cooperatives covering each panchayat of the country to reach a figure of 2 lakh in the coming five years. The

National Fisheries Development Board (NFDB) and FISHCOPFED have been assigned to speed up the work in coordination with the concerned State/UT authorities. The fisheries sector is quite diverse with sub-sectors like marine, inland, and brackish water, besides cold water and ornamental fisheries. Fisherwomen also play a vital role in fish processing and marketing and are quite active in fishery cooperatives; besides, there are exclusive fisherwomen cooperative societies. The database can help us identify the gaps in the sector, and efforts will be made to bridge the gaps.





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Fishery Success Stories

Some of the state federations are doing excellent work in the fisheries field, such as Matsyafed in Kerala, Gujarat Fisheries Central Cooperative Association (GFCCA) in Gujarat, and Benfish in West Bengal, besides Maharashtra State Federation, Tamil Nadu State Federation, MP State Federation, and AP State Federation. Other State federations are also progressing well. Most of these cooperatives have excelled in production, marketing, and providing services to members. There is a need to focus on the working of the district-level



federations and define their role more proactively to guide the primary fishery cooperative societies.

Matsyafed – Kerala

A progressive state level federation registered in 1984, the federation has had a 668 primary fishery cooperative societies as members. The federation has total turnover of more than Rs 300 Crore continuously for the last three years and has excelled in domestic sales and exports of fish as well. It has a chain of fish retail outlets in the state of Kerala and having own net-making and processing plant. The federation has played an active role in empowering the primary fisheries cooperatives through training and social security measures.

Gujarat Fisheries Central Cooperative Association (GFCCA)

Registered in 1956, the GFCCA is one of the oldest state federations, with 308 primary fisheries cooperative societies as members. The federation has the highest turnover of Rs 544.23 crore in the years 2021-22. It has a chain of diesel outlets to provide fuel to mechanised fishing boats, besides successful fish retail outlets in Delhi. It has strengthened the fisheries cooperatives in the state.

Source: FISHCOPFED

Primary societies in the fisheries sector have excelled in a few states, viz., Kerala and Maharashtra. These societies need to be professionally managed with a paid Secretary and automation in line with PACS. Mapping of water bodies and production units is needed to strengthen the functioning of the fisheries cooperatives with optimal membership. Networking and restructuring of all the fisheries cooperatives are a must, with integration with the upper tiers under the aegis of FISHCOPFED.

Strengthening of National Federation

FISHCOPFED has provided social security to poor fishermen through accidental insurance during the period 1982-2020. They are pioneers in organising training programmes for fishermen at the grassroot level or through online awareness creation about PMMSY and Cooperative principles, besides appropriate capacity building. The federation has been identified as an End Implementing Agency (EIA) by the Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. The federation is to be adequately strengthened with equity support and funds under various schemes, such as training and social-security programmes, for the sustainable development of the fishery cooperative sector. The federation can take the lead in organising FFPOs in the fisheries cooperative sector.

There is a need to set up the Fisheries Cooperative Management Institute in the country. Kausalyaganga at Bhubaneswar is a recognised fisheries hub in the country where FISHCOPFED has a training centre that could be upgraded as a National Institute of Fisheries Cooperatives Management with regional networks for skill development in the fisheries cooperative sector in a planned but phased manner.

Atmanirbhar Bharat Abhiyaan

As rightly said by the Prime Minister, "When India speaks of becoming self-reliant, it doesn't advocate a self-centered system." In India's selfreliance; there is a concern for the whole world's happiness, cooperation, and peace. He has



announced a Rs 20 lakh crore economic package under the 'Atmanirbhar Bharat Abhiyan'. The focused investment has the capacity to generate an additional 55 lakh direct and indirect gainful employment opportunities in the fisheries sector in the coming five years. The fisheries cooperative sector is all set to get momentum with the synergistic approaches of both the Ministries, i.e., the Ministry of Cooperation and the Ministry of Fisheries, Animal Husbandry and Dairying at the national level under the able guidance of the country's Home and Cooperation Minister. Besides funding, support is to be provided by the National Bank for Agriculture and Rural

Conclusion

Around 4 million people are economically benefited through primary fishery cooperatives in India. The fishery cooperative sector can provide livelihood security, nutritional security, and social security to the vulnerable groups in our society. There is an urgent need for the adoption of digital technology by fishery cooperatives to provide their services at the doorstep and play a key role in providing nutritious food to the people. The role of fishery cooperatives must be considered at every level in the changed economic scenario, and they should be supported with funds to develop infrastructures and progressive supply and а value chain for sustainability. The Government of India is committed to uplift the fishery cooperative sector through adequate policy and financial support.

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Development (NABARD), NCDC, and NFDB to strengthen the gap that has existed since independence. As a first step, there is a need to insure over ten million fishermen under the Group Accident Insurance Scheme (GAIS) within the next 2 to 3 years. All four million fishery cooperative members should be provided with online awareness training about the PMMSY scheme and Cooperative Principles. Since the fisheries cooperative sector represents weaker section people who are mostly living below the poverty line, they shall be provided marketing support for sustainable business plan to excel in domestic marketing, which can grow in line with Anand Milk Union Limited (Amul). Computerisation of a primary fishery cooperative can accelerate the growth of the sector at the microlevel too.

(Views expressed are personal)

ONE PACS ONE DRONE

TRANSFORMING COOPERATIVE SECTOR THROUGH TECHNOLOGY

To make the dream of 'Sahakar se Samriddhi' a reality, **Primary Agricultural Credit Societies (PACS)** must be strengthened. The Ministry of Civil Aviation, under the leadership of the Prime Minister of India announced the liberalised Drone Rules 2021 with a vision to make India a global drone hub by 2030. In order to boost the manufacturing of drones in India, the Central Government approved Production-Linked Incentive (PLI) scheme for drones and components worth Rs 120 crore and putting import bans, paving the way for the domestic manufacturing sector.

SACHIN KUMAR

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he Government of India is giving increasing focus on strengthening the Cooperative movement across the nation. It established the Ministry of Cooperation on 6 July 2021 to promote the Cooperative Sector and fulfil the dream of 'Sahakar se Samriddhi' of the Prime Minister. It has been felt that, to make this dream a reality, Primary Agricultural Credit Societies (PACS) must

be strengthened as a priority. PACS constitute the lowest tier of the 3-tier Short-Term Cooperative Credit (STCC) in the country, comprising approximately 13 crore farmers as its members, which is vital for the development of the rural economy.

After the formation of a new ministry, the scope of the cooperative sector has expanded. Recently, a Memorandum of Understanding was

A CASE FOR PROGRESSIVE FARMING & DRONE TECHNOLOGY

Ozarde village in Wai taluka in Satara district in Maharashtra is dominated by progressive farmers. The village occupies 2500 acres of land. Mahatma Gandhi Ozarde Primary Agriculture Cooperative Society operates at the village level to cater to the credit needs of farmers in rural areas. The PACS started in 1962 to provide crop loans to the farmer members of villages. The society has supported farmers in adopting innovative agriculture practises such as greenhouses, polyhouses, nurseries, exotic vegetables, sugarcane, strawberry, and turmeric cultivation. It has been set up as a multipurpose cooperative society with diversified businesses. The regional state government audited the society as 'A.' The society has been computerised since 2003. The PACS adopted drone technology for the farmers' community. The PACS purchased the equipment at a cost of Rupees three lakhs fifty thousand in 2021 with a warranty of three years from a Hyderabad company, Flymore. The company also has a supporting office in Kolhapur. The drone has a tank of 10 litres with rechargeable lithium batteries and is capable of spraying the field up to a height of sixty feet. It takes about seven to 10 minutes to spray 1.5 acres of land. A set of batteries used in the drone cost Rs fifty thousand. PACS has three reserve battery sets. It was observed that there had been no need for maintenance for the drone in a year. Drones have helped the farmers' community by spraying the fields with fertilisers, pesticides, and tonics. The technical person for drones has been trained and assigned to run the remote. The drones are provided for rent at a rate of Rs 800 per acre. This has helped in creating revenue for the PACS through the rents given by the farmers' community. The society also provides drones to other farmers who are not members of the society and facilitates two farmer members to operate the drones. The benefits of drone technology helped in the transformation of PACS towards viability.

signed between the Ministry of Cooperation, the Ministry of Electronics and Information Technology (MeitY), NABARD, and CSC e-Governance Service India Limited on 2 February 2023. The intention is to enable PACS to function as Common Services Centres (CSC). With PACS becoming multipurpose, more than 300 services will be made available to the rural population, especially to small villages However, before moving ahead and concretising this initiative, it is imperative to put up a complete discussion on the usage of drones on the big canvas.

Drone Policy

A drone is an unmanned aerial vehicle (UAV). It is an aircraft without any human pilot, crew,

situated in remote corners of the nation.

PACS are the primary institutions of the cooperative movement and after linking with more than 20 services, more employment opportunities will be created in rural areas. In this sequence, it can be strengthened by providing each PACS with a Drone under the initiative of 'One PACS One Drone (OPOD).' It will strengthen the economic condition of PACS and promote the entry of new entrepreneurs in this field.

In a major step to promote precision farming in India using drone technology, the Ministry of Agriculture and Farmers Welfare has issued guidelines to make drone technology affordable to the stakeholders of the Agriculture Sector. or passengers on board. UAVs are a component of an unmanned aircraft system (UAS), which includes adding a ground-based controller and a system of communications with the UAV. The flight of UAVs may be operated under remote control by a human operator as a remotelypiloted aircraft (RPA), or with various degrees of autonomy, such as auto pilot assistance, up to fully autonomous aircraft that have no provision for human intervention.

The Drone Rules 2021 were announced with a vision to

make India a global drone hub by 2030. In order to boost the manufacturing of drones in India, the Central Government approved Production-Linked Incentive (PLI) scheme for drones and components worth Rs 120 crore and putting import bans, paving the way for the domestic manufacturing sector. It is expected that the drone component industry will attract \$500 billion of investment in the next few years.

In a major step to promote precision farming in India using drone technology, the Ministry of Agriculture and Farmers Welfare has issued guidelines to make drone technology affordable to the stakeholders of the Agriculture Sector. The guidelines of the Sub-Mission on Agricultural Mechanisation (SMAM) have been amended which envisages granting up to 100% of the cost of a drone or Rs 10 lakh, whichever is less, as a grant for the purchase of drones by the Farm Machinery Training & Testing Institutes, ICAR Institutes, Krishi Vigyan Kendras (KVK), and State Agriculture Universities for taking up large scale demonstrations of this technology on the farmers' fields. The Farmer Producer Organisations (FPOs) would be eligible to receive a grant of up to 75% of the cost of the agriculture drone for its demonstration to the farmers.



In order to provide agricultural services through drone application, 40% of the basic cost of the drone and its attachments, or Rs 4 lakh, whichever is less, would be available as financial assistance by existing Custom Hiring Centres (CHC), which are set up by Cooperative Society of farmers, FPO, and rural entrepreneurs. The CHCs or Hi-tech Hubs that will be established by the Cooperative Societies of farmers, FPOs, and Rural entrepreneurs with financial assistance from SMAM, RKVY, or any other scheme can also include Drones as one of the machines along with other machines in the projects of CHCs/Hi-tech Hubs.

The Department of Agriculture & Farmers Welfare (Ministry of Agriculture and Farmers Welfare), after deliberation with all the stakeholders in the drone sector, has brought out a publication on Standard Operating Procedures (SOPs) for the use of drones in pesticide and nutrient application. It provides guidelines and instructions for the effective and efficient use of drones while ensuring the safety of operations.

Why Drone in Agriculture Sector?

The Indian agriculture sector is going through significant challenges such as low yield, soil erosion, a lack of irrigation facilities, inefficient use of inputs, unscientific use of chemical fertilisers,

> imbalanced NPK ratio in fertilisers, lack of post-harvest management structure, access to financial services, etc. Fourth Industrial Revolution technologies can play a major role in addressing these challenges. The Ministry of Electronic and Information Technology (MeitY) report highlighted that digital techbased agriculture can unlock a further value of \$65 billion by 2025. The impact of digital agriculture on the Gross Domestic Product (GDP) will be even larger.

> Drones are one such technology that is gaining prominence in the agriculture sector. Land mapping, agrochemical and liquid fertilisers spraying (such as nanourea/nano DAP/ Sagarika etc.), seeding, crop yield assessment, and drone-based analytics are the most prominent uses of the drone. The preliminary results have been promising.

Spraying of Agrochemicals & liquid fertilisers has the potential to be actively used as it saves the cost of inputs by 25-90%, minimises skin exposure by 90%, and improves crop yield. Mapping is the second major use case, with the potential to drive precision agriculture and minimise land disputes.

It has been noticed that farm mechanisation has increased with the highest adoption in northern states like Uttar Pradesh, Punjab, and Haryana (70-80% overall and 80-90% in rice and wheat). However, this is still low when compared to other countries like China (more than 70%), Brazil (more than 75%), and the United States (more than 95%). The low levels of mechanisation (less than 50% in India) add to the inefficiencies during the harvest and post-harvest stages, which is one of the reasons for the low productivity of crops. With the introduction

of drones in the agriculture sector, it is possible to increase the productivity of crops while minimising the input cost. Indian agriculture is prone to frequent pest attacks. Spraying pesticides/fungicides/liquid fertilisers, etc. through drones can solve the problem of pest infestations and their effects on crops.

Drones are poised to be an effective tool to support farmers in reducing their operating costs, while at the same time optimising their input use. There are multiple uses for drones, including surveying, seeding, spraying, pollination, etc., that are at different stages of technology and business model maturity.

One PACS One Drone: Action Required & Benefits

The Government has decided to establish multipurpose PACS across the nation. Providing each PACS with one drone will strengthen its economic condition. It would be a great help for PACS if the Government provides a grant of 75%

The Ministry of **Electronic and Information Technology** report highlighted that digital techbased agriculture can unlock a further value of \$65 billion by 2025. The impact of digital agriculture on the Gross Domestic Product (GDP) will be even larger. Drones can help transform Indian agriculture, boost agriculture GDP by 1-1.5%, create at least 5 lakh new jobs, and support the country in ushering in a new digital era of prosperity.

of the cost of agricultural drones purchased by PACS, as given to FPOs by the Ministry of Agriculture and Farmers Welfare, Government of India.

Drones can help transform Indian agriculture, boost agriculture GDP by 1-1.5%, create at least 5 lakh new jobs, and support the country in ushering in a new digital era of prosperity. Rural entrepreneurs associated with PACS, who have passed class 10th or its equivalent from a recognised board and have pilot licences from institutes specified by the Director General of Civil Aviation (DGCA) would be eligible to fly the agricultural drone.

The Guidelines on the Development of Entrepreneurs for Drone Spraying of Liquid Fertilisers published by the Department of Fertilisers, Ministry of Chemicals and Fertilisers, Government of India, have included a

commercial cost calculation for Agriculture Spray Drone, which states that the net annual profit for the entrepreneurs and members associated with PACS would be in the range of approximately Rs 5 to 6 lakhs.

Conclusion

The implementation of drone technology in agriculture is still a big issue. Some of the corporate farming institutions or large farmers-or progressivefarmershaveshownaninterestinusing drones in agriculture. Through this initiative of ONE PACS ONE DRONE, the benefits of the technology can reach even small and marginal farmers. Indian cooperatives can play an important role in the socio-economic growth of rural India by budding young entrepreneurs and providing employment to rural youths in their native places. This initiative will set an example in Transformation of Cooperative Sector through Technology.

REGENERATIVE AGRI-SUPPLY CHAIN MANAGEMENT

The focus of agriculture cooperatives has transformed from production to quality produce in addition to marketing and processing. Cooperative Marketing Societies have been progressing towards better storage facilities, efficient management of resources, timely payments to farmers, and minimisation of waste. Effective grading, sorting, and handling of agricultural commodities can help create an efficient supply chain. Cooperatives in regenerative supply chains are taking care of the climate, social and environmental justice by going beyond profit maximisation.

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upply chains concern themselves with the flow of products and information amongst the members of the supply chain organisations. This entails the procurement and transformation of materials into final finished products, and the distribution of those products to end customers. The real measure of the success of any given supply chain is how well activities coordinate across the chain to create value and profitability of every relation within the supply chain. The supply chain is the series of the flows of agricultural commodities from producer to consumer following the sequence of logistics flows,

transporters, stores, procurement, warehousing, inventory management, and processing. Agriculture Supply Chain Management (ASCM) focusses on efficient planning, design, coordination, organisation, storage, processing, and monitoring of the flow of agricultural commodities from farm to fork. However, these supply chains are often challenged by various factors such as climate change, market volatility, market price rate, and supply chain disruptions. The transformation towards a climatesmart regenerative agriculture supply chain will suppress the social and environmental pressures on agriculture.



Importance of Supply Chain Management

Agricultural supply chains ensure food security and sustainable agricultural development by connecting different stakeholders, viz. farmers, processors, collectors, wholesalers, distributors, retailers, and consumers. Farmers are dependent on supply chain intermediaries for procuring, marketing, and distributing commodities. Supply Chain Management requires the right allocation of resources to handle storage problems, transportation problems, and inventory management.

Cooperatives in Agri-supply Chain

Cooperatives help in providing support services in technical, financial, and operational aspects of the agriculture supply chain. Collectives like Farmer Producer Organisations (FPOs), Cluster-Based Business Organisations (CBBOs), Cooperative Marketing Societies, etc., are responsible for diverse business activities like bulk purchase of agriinputs, providing agro-advisory services along with facilitation of credit requirements, aggregation of produce for collective marketing, and processing of agricultural commodities. Cooperatives provide a platform for information dissemination, marketing, transportation, and distribution of agricultural

commodities. Producer cooperatives have integrated supply chain activities through symbiotic operations. Cooperatives help in offering credit facilities and getting quality produce by supplying the right agri-inputs (seed, fertiliser, agrochemicals, farm equipment, and biofertilisers).

Cooperative Marketing and Supply Chain

The focus of agriculture cooperatives has transformed from production to quality produce in addition to marketing and processing. Cooperative Marketing Societies have been towards better progressing facilities, storage efficient management of resources, timely payments to farmers, and minimisation of waste.

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Effective grading, sorting, and handling of agricultural commodities can help create an efficient supply chain.

PACS Storage & Supply Chain Management

With the recent infrastructure push of the Ministry of Cooperation under the leadership of Amit Shah - the first ever Cooperation Minister of India, the country is going to witness rapid growth in the cooperative movement. Primary Agricultural Credit Society (PACS) are expected to become multipurpose and will be able to undertake multifarious activities, which, inter alia, include fishery, dairy, construction of rural godowns, procurement of food grains, storage of agri-inputs (seed, fertiliser), LPG/CNG/Petrol distribution, short-term & longterm credit, custom hiring centres, common service centres, fair price shops (FPSs), community irrigation, business correspondent activities, etc. The management of godowns, procurement centres, and FPSs requires antecedents for transforming into a regeneration focusing on quality produce, inventory, logistics, and information management.

PACS have been developed as multi-service centres that assist the farmers in procuring and marketing of agricultural produce along

> with meeting the credit requirements. The storage of agriculture implements, and agri-inputs by PACS can help ensure availability of quality inputs for farmers. PACS are functioning as common service by facilitating centres the delivery of services to villages. With time, PACS has diversified business provide its to agriculture input facilities, agriculture implements, and storage capacity.

> PACS have delivered the right agri-inputs to the farmers at the doorstep ensuring quality production, and facilitated storages. In recent years, they have availed loans for agriculture procurement, setting up warehouses, primary processing centres, custom hiring centres, sorting and grading units and

RAW PRODUCTS TO VALUE ADDITION JOURNEY OF SUCCESSFUL COOPERATIVES



Venkateshwara Cooperative Power & Agro Processing Ltd. mentioned in 'Mann ki Baat' by the Prime Minister for Agro Farming has a strong organisational structure with members as farmers and exservicemen, founded in 2019 by Shivaji Dole. Currently, the cooperative has a membership of 20,000 farmers. The area of operation of the society spread across Maharashtra and Karnataka. The organisation is involved in production, processing, marketing, and export of agri-commodities. The cooperative has a farm spread across 528 acres of land at Ajang-Vadel, Malegaon of Nashik district. The cooperative has developed innovative strategies for cashewnut processing and successfully implemented a marketing project, a milk processing centre at Nagpur, geranium farming, anaerobic micronutrient composting bag project, agro-storages/warehouse, organic turmeric processing units, pearl farming, fruits and vegetable export, goat farming, and live animal export project.

Eastern Agro Processing and Tea Warehousing Cooperative Society, Assam was established in 1971 and founded by Gopal Chandra Baishya. The society installed mustard oil packaging facilities to promote mustard value chain, a soya refined oil packaging unit, and tea packaging unit for quality Assam tea. The society has provided storage facilities for tea at auction centres. The collective approach has resulted in ensuring quality and building a trusted brand. Society has regenerated the supply chain of commodities through construction of warehouses, and godown structures. Selling centres at different locations have helped in building networks for productive gains.

cold chain facilities, assaying units, logistics facility, infrastructure for smart and precision agriculture, supply chain infrastructure for clusters of crops,

packaging units, organic inputs production, ripening chambers, composite project, bio-stimulant production units, silos, waxing plants, supply chain infrastructure for export clusters of crops, and others.

Managing Supply Chain Risks

Cooperatives need to manage supply chain risks attached to quality standards, available human resources, market rate fluctuations, climate factors, logistics delays, availability of raw materials, efficiency, and productivity in The Ministry of Cooperation has recently notified setting up of three sector-specific national level cooperative societies: seed, export, and organic societies, which will require an efficient supply chain management system to be owned, operated, and managed by member cooperatives.

agri-operations, finance, packaging, and marketing, etc (Figure 1). Supply chain risks in cooperatives can be managed through digitalisation and the

> application of data analytics. Data in the supply chain characterised by volume, veracity, variety, and velocity can be well-managed by cooperatives.

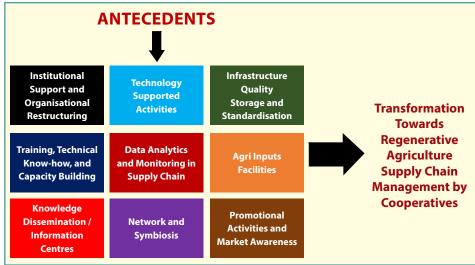
Antecedents of Supply Chain Management

Cooperatives, by bringing in successful models of supply chain, have transformed into regenerative supply chains. Cooperatives in regenerative supply chains are taking care of the climate, social, and environmental justice by going beyond profit maximisation. It focuses on reduce, reuse and recycle (3Rs) of the by-products generated in the supply chain and minimises waste. Agriculture cooperatives need to focus on the antecedents (Figure 2), with special reference to planning storage structures and warehousing for increasing the shelf life of agricultural commodities.

Conclusion

The Ministry of Cooperation has recently notified setting up of three sector-specific national level cooperative societies: seed, export, and organic societies. Setting up and promoting these cooperative societies will require an efficient supply chain management system to be owned, operated, and managed by member cooperatives. The Seed Multi-state

Cooperative Society with an authorised share capital of Rs 500 crore, will help in regenerating the functions of the supply chain like production, processing, storage, and distribution of quality seeds. The Organic Products Society will benefit the organic food market by bringing certification and standardisation through laboratory networks. The society will facilitate training and capacity building for the functions of agriculture supply chains. Export Society will benefit 29 crore members of cooperatives through various supply chain activities like procurement, storage, processing, marketing, branding, packaging, etc.



have also helped in regenerating supply chains and overall cooperative development. Expansion of knowledge on the by-products and their use need to be explored. Agriculture supply chain management by cooperatives depends upon how well the members are sensitised about the recent advances in the supply chain and their applications towards effective management. (Views expressed are personal)





Figure 1: Managing Supply Chain through Cooperatives

The transformation towards a regenerative supply chain has provided cooperatives with economic, social, and environmental benefits. Antecedents like institutional support, organisational restructuring, network and symbiosis, training, technical knowhow, agrifacilities, knowledge input dissemination, adequate infrastructure, quality storage, capacity building, training, promotional activities, market awareness, data analytics, and monitoring will help in the transformation towards better supply chain management by cooperatives. Industrial symbiosis and supply chain networks among cooperatives

WORLD'S LARGEST GRAIN STORAGE PLAN

An Inter Ministerial Committee (IMC) has been constituted and empowered for facilitation of the A'World's Largest Grain Storage Plan' in Cooperative Sector. This will be done by convergence of various schemes of the Ministry of Agriculture and Farmers Welfare, Ministry of Consumer Affairs, Food and Public Distribution and Ministry of Food Processing Industries.

In order to ensure time-bound and uniform implementation of the Plan in a professional manner, the Ministry of Cooperation will implement a pilot project in at least 10 selected districts of different States/ UTs in the country. The pilot would provide valuable insights into the various regional requirements of the project, its learnings will be suitably incorporated for the country-wide implementation of the Plan.

The IMC will be constituted under the Chairmanship of Minister of Cooperation, with Minister of Agriculture and Farmers Welfare, Minister of Consumer Affairs, Food and Public Distribution, Minister of Food Processing Industries and Secretaries concerned as members to modify guidelines/ implementation methodologies of the schemes of the respective Ministries as and when need arises. This will be done within the approved outlays and prescribed goals, for facilitation of the Grain Storage Plan by creation of infrastructure such as godowns, etc., for Agriculture and Allied purposes, at selected 'viable' Primary Agricultural Credit Societies (PACS). The Plan would be implemented by utilising the available outlays provided under the identified schemes of the respective Ministries.

The Plan entails setting up various types of agri-infrastructure, including warehouse, custom hiring centre, processing units, etc. at the level of PACS, thus transforming them into multipurpose societies. Creation and modernisation of infrastructure at the level of PACS will reduce food grain wastage by

World's Largest Grain Storage Plan

Benefits of the Plan



The plan is multi-pronged - it aims to address not just the shortage of agricultural storage infrastructure in the country by facilitating establishment of godowns at the level of PACS, but would also enable PACS to undertake various other activities, viz:

- Functioning as Procurement centres for State Agencies/ Food Corporation of India (FCI);
- Serving as Fair Price Shops (FPS).
- Setting up custom hiring centres:
- Setting up common psocessing units, including assaying, sorting, grading units for agricultural produce, etc.

Further, creation of decentralised storage capacity at the local level would reduce food grain wastage and strengthening food security of the country.

By providing various options to the farmers, it would prevent distress sale of crops, thus enabling the farmers to realise better prices for their produce.

It would hugely reduce the cost incurred in transportation of food grains to procurement centres and again transporting the stocks back from warehouses to FPS.

Through Whole-of-Government' approach, the Plan would strengthen PACS by enabling them to diversify their business activities, thus enhancing the incomes of the farmer members as well. creating sufficient storage capacity, strengthen food security of the country and enable farmers to realise better prices for their crops. In view of the important role played by PACS at the grass root level in transforming the agricultural and rural of landscape Indian economy and to leverage their deep reach up to the last mile, this initiative has been undertaken to set up decentralised storage capacity at the level of PACS along with other agri-infrastructure, which would not only strengthen the food security of the country, but would also enable PACS to transform themselves into vibrant economic entities.