



COOPERATION TO PROSPERITY

**SAHAKAR SE
SAMRIDDHI: FROM
PLANNING TO
REALISATION**

**STRATEGIC
DIVERSIFICATION OF
COOPERATIVES AND
BUSINESS
COMPETITIVENESS**

**EMPOWERING
AGRICULTURE CREDIT
COOPERATIVES
THROUGH
DIGITISATION**

COOPERATIVES

Cooperation represents a collective of individuals with shared economic needs, who willingly combine their human and material resources to establish a democratic enterprise that benefits all members mutually. It is an economic organization founded on specific life values, a voluntary and democratic association that ensures equality of control, opportunity, and fair distribution.

CONSTITUTIONAL PROVISIONS FOR COOPERATIVE SOCIETIES:

- ❖ The Constitution of India, under Article 19(1)(c), grants every citizen the right to form associations, unions, or cooperative societies.
- ❖ Additionally, Directive Principles of State Policy (43B) emphasize the State's commitment to promoting cooperative societies through voluntary formation, autonomous functioning, democratic control, and professional management.
- ❖ Part IXB of the Indian Constitution also confers constitutional status to cooperative societies, containing provisions to ensure their democratic operations.

TYPES OF COOPERATIVE SOCIETIES:



Cooperative societies come in various forms to serve diverse purposes:

- ❖ Consumer Cooperative Societies
- ❖ Producer Cooperative Societies
- ❖ Marketing Cooperative Societies
- ❖ Credit Cooperative Societies
- ❖ Cooperative Housing Societies
- ❖ Farmers' Cooperative Societies

NATIONAL COOPERATIVE DATABASE:

The National Cooperative Database operates as an information-based Decision Support System with the following objectives:

- ❖ Elevating the cooperative movement by enhancing outreach and coordination of activities at the grassroots level and across different sectors.
- ❖ Advocating for an inclusive and sustainable economic development model based on cooperatives.
- ❖ Facilitating operational processes for cooperatives, making their functioning more efficient and seamless.

SAHAKAR SE SAMRIDHI: FROM PLANNING TO REALISATION

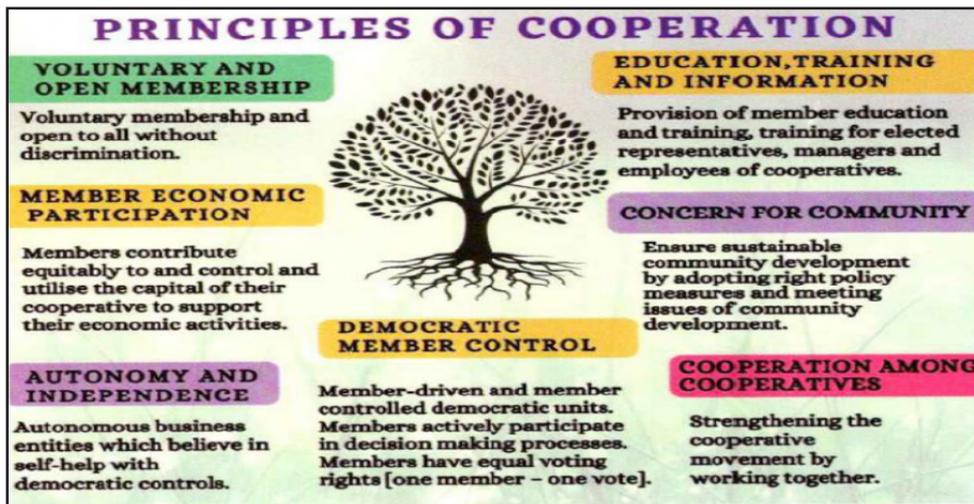
To promote prosperity and progress through collaborative efforts, India took a significant step in July 2021 by establishing the Ministry of Cooperation (MoC) as an independent administrative entity. This move was accompanied by the motto "Sahakar se Samridhi" (prosperity through cooperation), aiming to foster a cooperative-led movement. Embracing this approach has the potential to stimulate balanced regional development and enable local entrepreneurs to gain global expansion opportunities.

OVERVIEW OF THE COOPERATIVE MOVEMENT

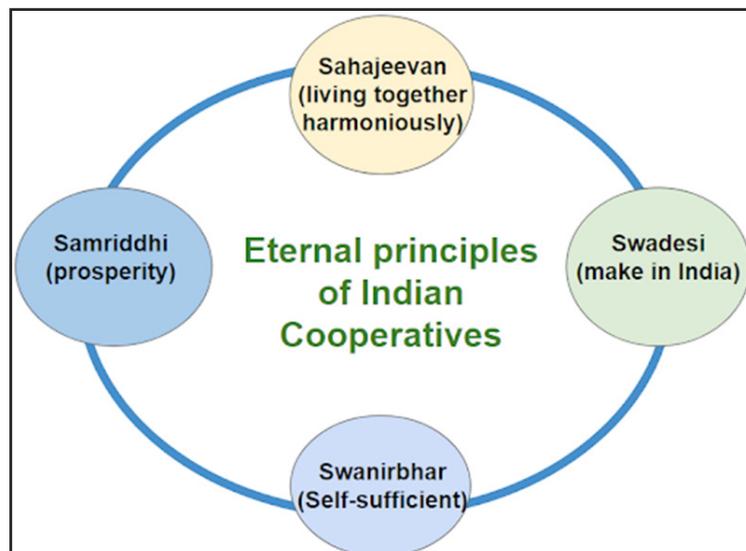
- ❖ The cooperative movement in India has a vast presence, with 8.54 lakh cooperatives spread across 98% of the villages, boasting 29 crore members. Among these cooperatives, 80% are non-credit cooperatives, while the remaining 20% are credit cooperatives.
- ❖ The roots of the cooperative movement can be traced back to 1904 when the Cooperative Credit Societies Act was introduced, marking the first official recognition of cooperatives in the country. Over time, the movement evolved, shifting from primarily offering relief to focusing on enhancing socio-economic welfare, a transformation spurred by the Maclagan Committee Report on Cooperatives (1914-15).
- ❖ Following India's independence, the cooperative movement gained further acknowledgment as it found a place in the perspective plans of the Government of India, signifying its importance in the nation's developmental agenda.

HONOURING THE PRINCIPLE OF COOPERATION

- ❖ Our cooperatives deserve appreciation as they bring collective cohesiveness, community business sense, and enhanced social bonding by adhering to the seven principles of cooperation.



- ❖ Our cooperatives also justify the eternal principles of cooperatives as given below:



- ❖ To unlock cooperative potential, address challenges with appropriate policies and government interventions, using the 4 Ps and 4 Es framework.



GOVERNMENT COMMITMENTS TO INDIAN COOPERATIVE MOVEMENTS

- ❖ The Indian government has shown commitment to the cooperative movements by introducing the 'SQUAD' framework, which prioritizes and explores new emerging areas for cooperatives.



- ❖ **National cooperation policy:** Suresh Prabhu committee has been set up to formulate an all-inclusive policy for the uniform cooperative movement.

- ❖ Strengthening Primary Agriculture Credit Societies (PACS) through various measures:
 - ◆ **Model By-laws for PACS:** To enhance operational efficiency, transparency, and responsibility towards community development, 22 states have adopted model-by-laws.
 - ◆ **PACS as Common Service Centres (CSC):** By registering as CSCs, PACS can diversify their business activities and achieve self-sustainability.
 - ◆ **Integrating PACS with FPOs:** This integration expands PACS' scope, enabling them to participate in high-income ventures like beekeeping and mushroom cultivation.
 - ◆ **PACS in the Oil and Energy Business:** PACS have the opportunity to obtain licenses for petrol and diesel dealerships, and LPG distributorships, and actively contribute to various renewable energy schemes.

National Cooperative University: This initiative seeks to establish a comprehensive, integrated, and standardized structure for cooperative teaching and training. By meeting the demand for capacity building within the existing workforce, it aims to enhance the overall effectiveness of cooperatives.

Cooperative Database: The Ministry of Cooperation is taking steps to develop a comprehensive cooperative database. This database will efficiently capture authentic and updated data on cooperatives from all sectors. Its primary purpose is to support policy formulation and decision-making processes related to cooperative development and growth.

OTHER NOTABLE INITIATIVES INCLUDE:

- ❖ Computerizing 63,000 operational primary agricultural credit societies.
- ❖ Enabling cooperative societies to register as buyers and sellers on the Government e-market platform (GeM).
- ❖ Establishing the National Export Cooperative Society to facilitate cooperative-driven exports.
- ❖ Creating a national organics cooperative society to promote organic products.
- ❖ Forming the National Export Seed Cooperative Society to support the production, preservation, certification, and distribution of quality seeds.
- ❖ Establishing 2 lacks new multi-purpose Primary Agriculture Credit Societies (PACS) to cover all 2.54 lakh panchayats.
- ❖ Empowering cooperatives through the training of more than 52,139 Farmers.

CHALLENGES IN ENSURING SMOOTH AND SUSTAINABLE GROWTH OF THE COOPERATIVE SECTOR

- ❖ Addressing regional and sectoral imbalances in cooperative expansion.
- ❖ Navigating the complex regulatory landscape across states.
- ❖ Enhancing governance, leadership, and operational systems, and promoting professional management of cooperatives.
- ❖ Establishing effective dialogue and coordination among central, regional, and state registrars of cooperatives.
- ❖ Strengthening basic infrastructure and fostering the formation and promotion of new cooperative societies and social cooperatives

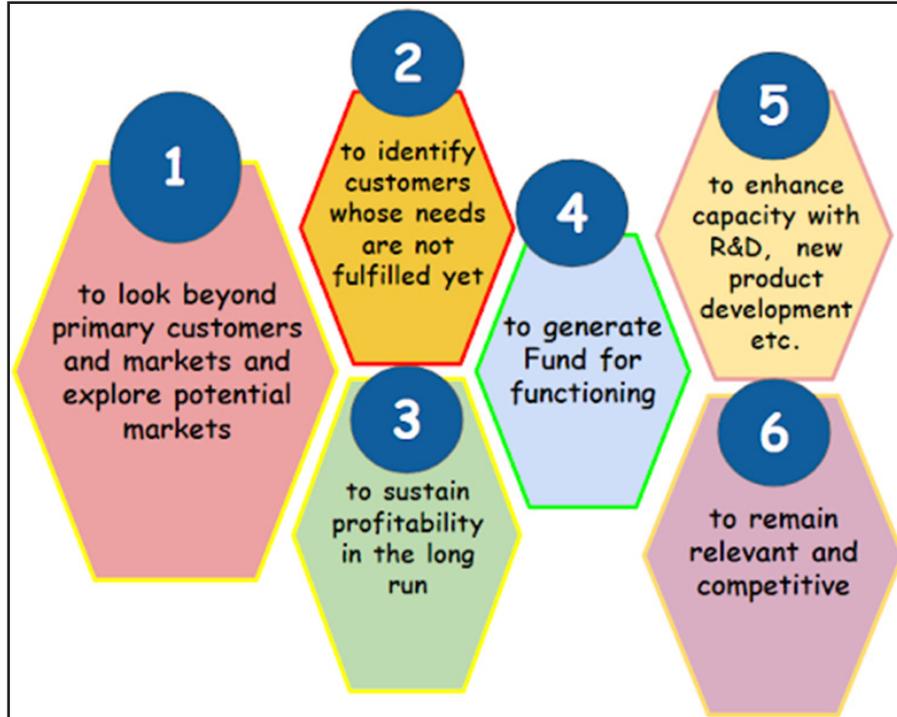
CONCLUSION

- ❖ Cooperatives' contribution will play a significant role in achieving the target of a five trillion dollar Indian economy and elevating farmers' income with a multiplier effect.
- ❖ The realization of the Sahakar se Samridhi vision depends on community business units effectively harnessing the inherent potential of collective action among people and aligning with the fundamental principles of the cooperative-based model for socio-economic progress.

STRATEGIC DIVERSIFICATION OF COOPERATIVES AND BUSINESS COMPETITIVENESS

The Union government is prioritizing the enhancement of current primary cooperatives while also aiming to establish an additional 200,000 primary-level cooperatives in the next 4 to 5 years. The strategic diversification of cooperatives, from the community level to the national level, is vital to maintain their competitiveness and continued significance in the market.

NEED FOR BUSINESS DIVERSIFICATION:



TYPES OF DIVERSIFICATION COOPERATIVES CAN INCORPORATE:

Types	Ways of diversification	Example
Product Diversification,	Diversify products and services to meet new market needs or change customer preferences,	Amul introduced ice creams and other frozen milk confectionaries.
Geographic diversification	Diversify product offerings to reach new markets and satisfy customer needs.	Karnataka Milk Federation’s milk brand ‘Nandini Goodlife’ is available across various states
Service diversification	Offer additional services alongside primary products and services.	Anjarakandi Urban Cooperative Bank in Kerala sells coconut-based products in addition to banking services.
Joint ventures	Cooperatives can form joint ventures to combine resources and expertise	IFFCO and Spain’s Congelados De Navarra have a joint venture to set up a food processing unit in Punjab.
Vertical integration	Cooperatives can vertically integrate by adding upstream or downstream activities.	Amerli District Cooperative Milk Producers Union and IFFCO Kisan Sanchar have a joint venture for high-quality animal feed supply.
Horizontal integration	Cooperatives can horizontally integrate by merging or acquiring other cooperatives or companies for economies of scale.	Centrum Finance Ltd acquired Punjab and Maharashtra Cooperative Bank to expand their market.

STRATEGIC DIVERSIFICATION OFFERS SEVERAL ADVANTAGES TO COOPERATIVES:

- ❖ Utilizing their distinct strengths and capabilities, cooperatives can achieve growth and gain a competitive edge in new markets and product lines.

- ❖ Cooperatives can broaden their customer base and decrease dependence on particular markets.
- ❖ By aligning diversification opportunities with their mission and values, cooperatives can more effectively cater to the needs of their members.
- ❖ Strategic diversification enables cooperatives to establish favorable market positions compared to corporate entities.
- ❖ Cooperatives can generate business profits while simultaneously fostering inclusiveness in their endeavors.

Case Study: Sittilingi Organic Farmers Association (SOFA) - Profit Multiplier through Business Diversification

In Sittilingi, Tamil Nadu, 500+ members formed SOFA as a cooperative society in 2004. Cultivating diverse crops and advising production based on market demand, they ensure financial viability. With innovative value addition, SOFA markets millet-based products, sourced by 40 retail outlets, generating a minimum of Rs 50,000/month. Diversifying into ancillary agri-business, such as organic fertilizers, nurseries, and bio-compost units, yields a collective turnover of Rs 25 lakh annually.

Case Study: Mann Deshi - Empowering Rural Women through Cooperative Value Addition

Founded in 1997, Mann Deshi is a women-centric micro-enterprise cooperative in Maharashtra. It empowers rural women by providing financial literacy, skill development, and access to affordable financial services. Offering loans worth over Rs 2,000 crore, it has transformed over 4,00,000 women into successful entrepreneurs. Beyond banking, it provides vocational training, and market linkages, and operates a community radio station, benefiting over 4 million listeners. Mann Deshi's holistic approach has significantly improved the social status and access to education and healthcare for its members, creating a lasting impact on rural women's empowerment.

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. A Cooperative can diversify itself strategically by analysing five facets of strategic management as follows-



- ❖ **Goal Setting:** cooperative should decide the exact nature of the goal it has and the various purposes behind which the goals will be outlined for their accomplishments.
- ❖ **Goal Analysis:** understanding of the local situation, followed by an internal and external environment assessment to conduct a Strength, Weakness, Opportunity, and Threat (SWOT) analysis.
- ❖ **Formulation of Strategy:** through which the goals can be achieved by means of reflection, prioritization, and development of options for decision-making purposes.
- ❖ **Implementation of Strategy:** to put the chosen plans into practice, marshal the resources, and identify tactics through which the strategy can be implemented successfully.
- ❖ **Monitoring the strategy:** against the agreed timeline/verification pattern to carry out a mid-term/periodic review.

Thus, by leveraging the unique strengths and capabilities of cooperatives and aligning diversification opportunities with their mission and values, cooperatives can drive growth and competitive advantage in new markets and product lines.

EMPOWERING AGRICULTURE COOPERATIVES THROUGH DIGITISATION

Cooperative credit institutions have played a significant role in fostering social and economic development in India. Especially in rural regions, they have been instrumental in mobilizing credit for agricultural production, contributing to the overall progress of the country.

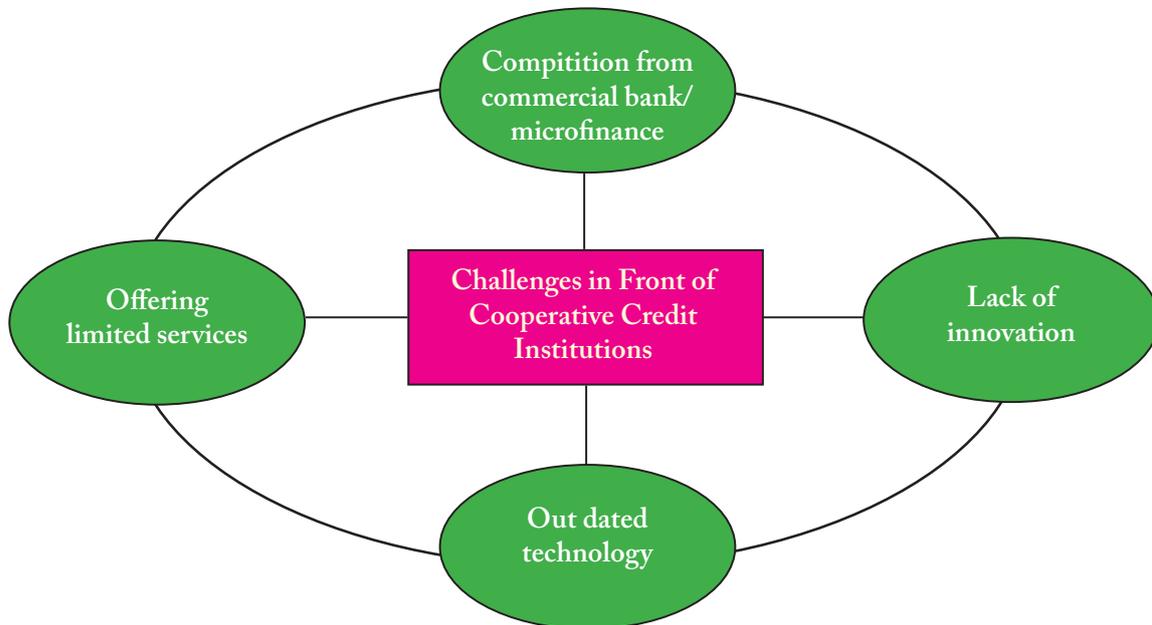
ABOUT COOPERATIVE CREDIT INSTITUTIONS

- ❖ The short-term rural cooperative credit structure (STCCS) follows a three-tier structure: State Cooperative Banks (StBs), District Central Cooperative Banks (DCCBs), and Primary Agriculture Credit Societies (PACs) at the village level.
- ❖ These institutions are subject to regulation by the Reserve Bank of India (RBI) and oversight by the National Bank for Agriculture and Rural Development (NABARD).
- ❖ Aside from providing crucial credit support for agricultural production, they also play vital roles as enablers of self-help, community involvement at the grassroots level, and ensuring social control over resource allocation and mobilization.



CHALLENGES IN FRONT OF COOPERATIVE CREDIT INSTITUTIONS:

- ❖ Tough competition from commercial banks and microfinance institutions in the rural credit domain.
- ❖ Difficulty in embracing modern technologies and staying updated.
- ❖ Overreliance on traditional offerings like short-term loans instead of exploring additional services like financial advice and marketing support.
- ❖ Insufficient innovation in their operations and service offerings.



EMPOWERING COOPERATIVE CREDIT INSTITUTIONS THROUGH TECHNOLOGY

Digitization of STCCS:

- ❖ The implementation of Centralized Online Real-time Exchange (CORE) based Banking Solutions (CBS) has automated State Cooperative Banks (StBs) and District Central Cooperative Banks (DCCBs), leading to improved regulatory mechanisms and facilitating anytime, anywhere banking.
- ❖ Standardized technology-driven office management systems can enhance efficiency and governance across cooperative banks.

Technology Adoption for PACS:

Computerization of Primary Agriculture Credit Societies

CABINET DECISIONS
29 JUNE 2022

Project will comprise

- Vernacular language software with flexibility of customisation as per the needs of the States
- Project Management Units to be set up at Central and State levels
- District Level Support provided to cluster of about 200 PACS

- ❖ While DCCBs require digitization of business processes, PACS need to undergo computerization as a fundamental step towards improved efficiency.
- ❖ Computerizing PACS aims to enhance service delivery, digitize operations, and foster integration with DCCBs and StBs. Under the computerization of PACS, 63000 PACS will be computerized in the next 5 Years.
- ❖ Challenges such as inadequate rural infrastructure, power supply, internet connectivity, and computer skills need to be addressed.

Case Study: ECOBANet - Revolutionizing Rural Banking through Cooperative Value Addition

Launched in 2017 by Ernakulam District Central Coop. Bank (EDCCB), ECOBANet is an integrated technology platform that connects all affiliated credit institutions. This tech-driven solution empowers PACS to offer modern banking services, including Direct Benefit Transfers, RUPay Cards, and mobile passbook services, promoting financial inclusion in rural areas. With real-time monitoring at the DCCB level, it exemplifies the transformative potential of technology-enabled platforms in enhancing banking experiences for rural clients.

TECHNOLOGY ADOPTION FOR CUSTOMER INTERFACE, SERVICE DELIVERY, AND DECISION MAKING:

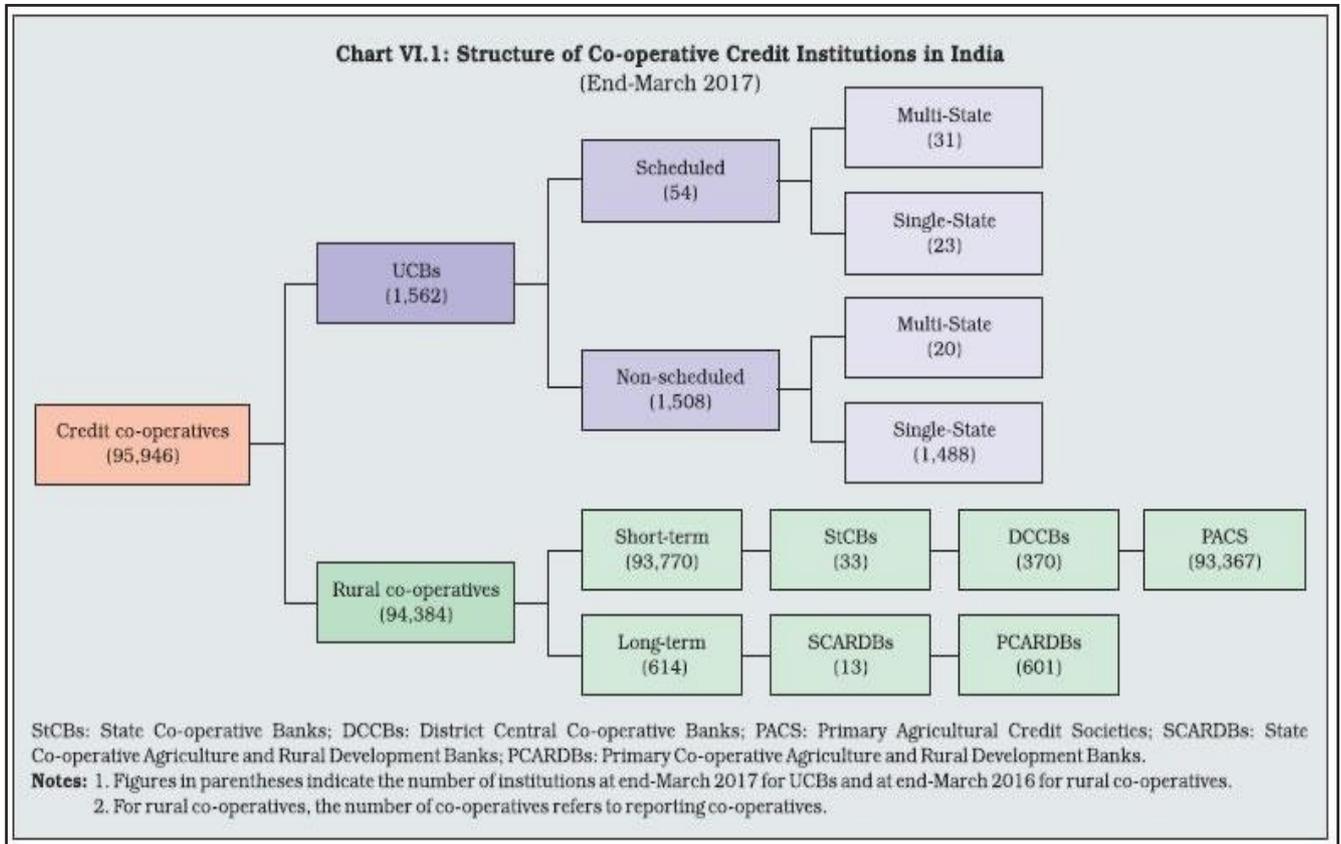
- ❖ Embracing technologies like mobile banking, internet banking, drones for field monitoring, and blockchain for cybersecurity and transparency is essential.
- ❖ Collaborative partnerships with fintech firms can facilitate customer acquisition, credit profiling, advisory services, financial products, and the development of user-friendly digital interfaces.

Digitization empowers cooperative credit institutions, driving rural development with seamless integration and improved service delivery for financial inclusion. With policy support and a focused approach, they can effectively meet the evolving needs of Indian agriculture, benefiting rural communities.

DEVELOPING PATHWAYS FOR NON-CREDIT COOPERATIVES

- ❖ Around 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.

COOPERATIVE STRUCTURE IN INDIA



- ❖ India's cooperative sector is regulated by three key acts: the Cooperatives Society Act (1912), the Mutually Aided Cooperative Thrift Societies Act, and the Multi-State Cooperative Societies Act (2002).
- ❖ There are two main types of cooperative structures in the country: State Cooperative Societies(governed by the State Governments) and Multi-State Cooperative Societies(under the authority of the Central Government).

IMPACT OF GLOBALIZATION ON COOPERATIVES:

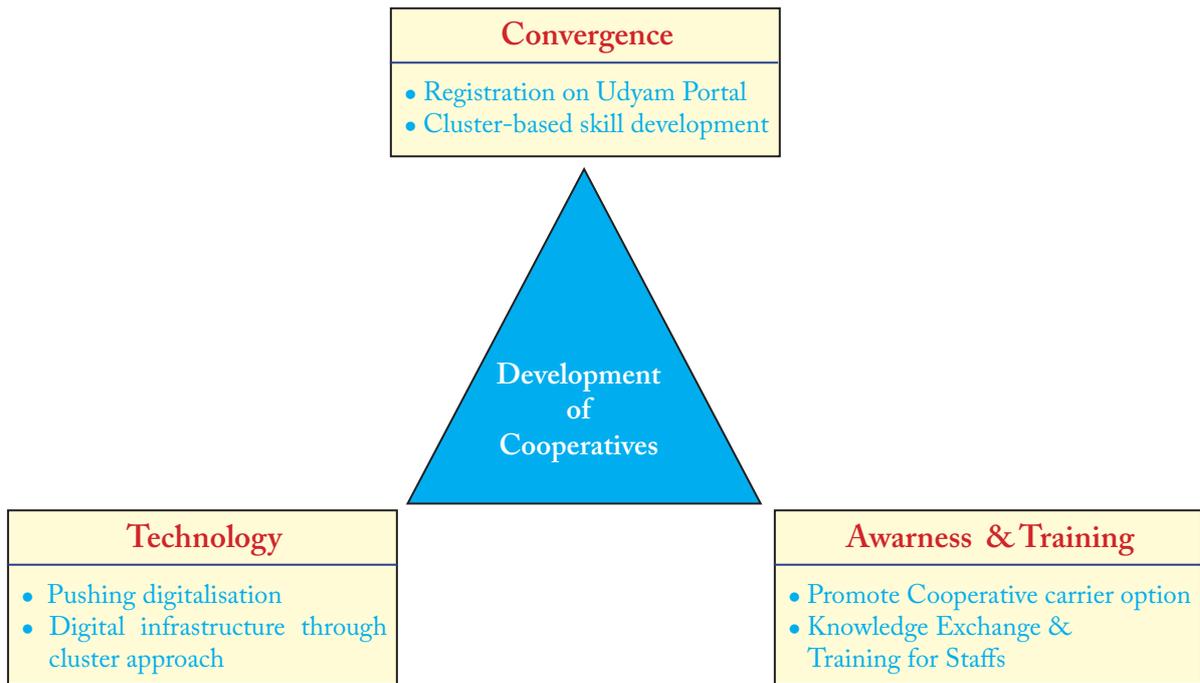
Amul, HOPCOMS, and IFFCO have been success stories despite the fear that globalization would affect the growth of cooperatives. Their success can be attributed to-

- ❖ well-functioning end-to-end supply integration chain
- ❖ diversification of products and marketing
- ❖ technological advancements
- ❖ professional management

These success stories highlight the potential of cooperatives, especially in the food processing sector, to contribute to India's economy.

Case Study: OMFED - Empowering Dairy Farmers through Cooperative Value Addition
OMFED, registered under the Cooperative Society Act, promotes, produces, procures, processes, and markets milk and milk products. It follows a three-tier system with Village Cooperative Societies, District Milk Unions, and the Milk Federation. This efficiently managed supply chain ensures the economic development of rural farming communities in Odisha. OMFED's success story began in the 1980s, providing small dairy farmers with income growth, timely payouts, and improved cattle care. The cooperative has empowered farmers and transformed the dairy sector in the state.

THE FOLLOWING STEPS NEED TO BE TAKEN FOR THE DEVELOPMENT OF COOPERATIVES :



Convergence:

- ❖ Cooperatives can register as MSMEs on the Udyam Portal.
- ❖ Cluster-based programs fund common facilities and skill development.
- ❖ Udyam certification grants access to program benefits and priority sector lending.

Awareness, Training, and Mentoring:

- ❖ Promote cooperatives as a viable career option for students.
- ❖ Provide training and skill development for cooperative staff.
- ❖ Foster collaboration through mentorship programs.
- ❖ Encourage knowledge exchange and creative cooperation.

Technology and Digitization

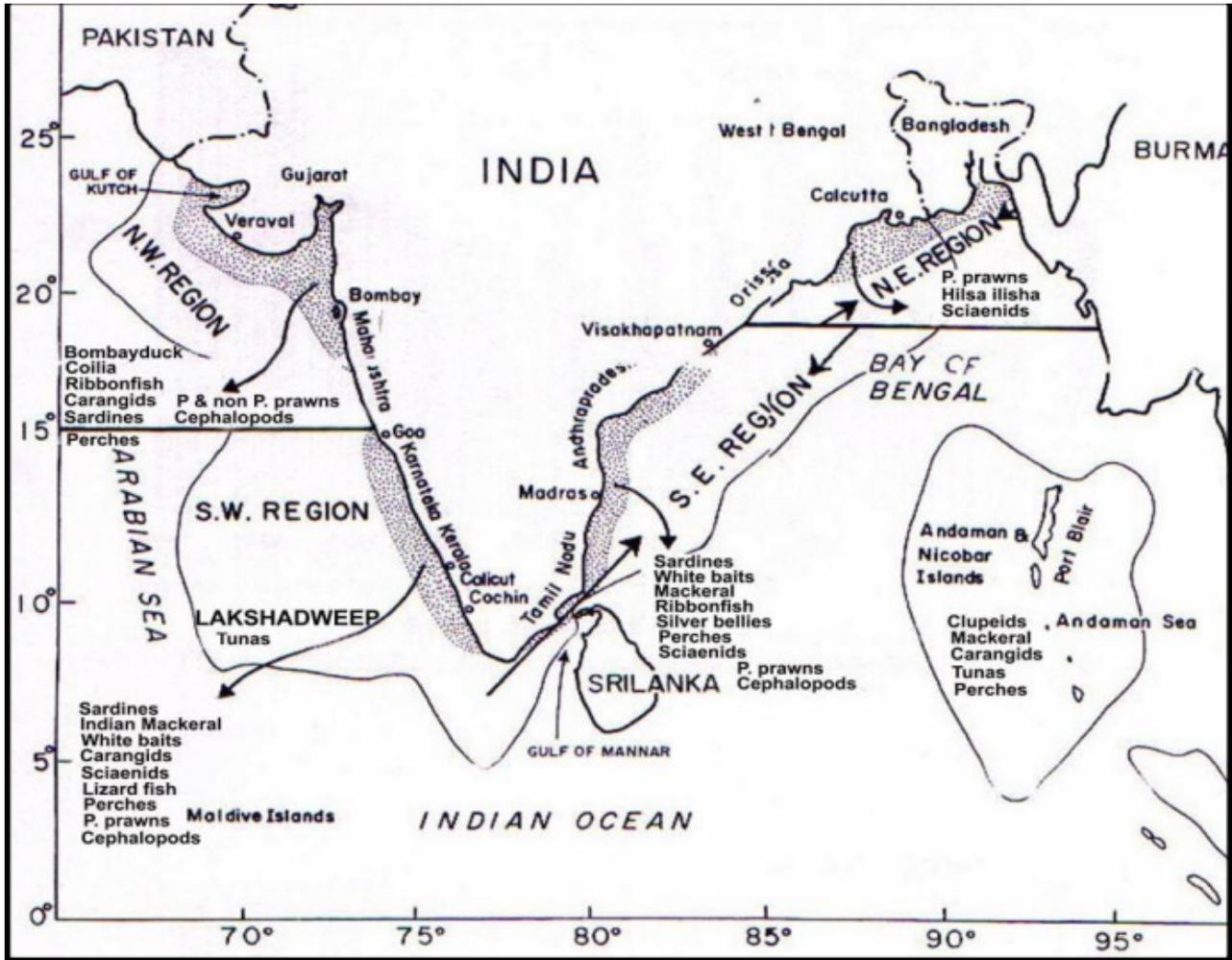
- ❖ Cooperatives need to upgrade technology, production methods, and business models to remain relevant and competitive.
- ❖ Emphasize the importance of earnestly pursuing digitalization of processes within cooperatives.
- ❖ Implement hard interventions, including creating physical infrastructure, to support cooperatives, potentially through the cluster approach

The government's dedication to community-led socioeconomic progress is evident through its emphasis on cooperation and development. By integrating state cooperatives into multi-state entities and focusing on convergence, awareness, training, mentoring, technology upgradation, and digitization, India can unleash the complete potential of these cooperatives.

FISHERY COOPERATIVES

INTRODUCTION:

- ❖ The fisheries sector in India exhibits diversity, encompassing marine, inland, and brackish water sub-sectors, along with cold water and ornamental fisheries.
- ❖ India's extensive coastline of over 8,000 km, an exclusive economic zone spanning more than 2 million square km, and vast freshwater bodies contribute to the sector's substantial economic potential.
- ❖ 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.



ROLE OF FISHERY COOPERATIVES:

- ❖ Fishery cooperatives play a pivotal role in ensuring livelihood security, nutritional security, and social security for vulnerable groups in society.
- ❖ Approximately 4 million people derive economic benefits from primary fishery cooperatives in India.
- ❖ Given the transformed economic scenario, it is crucial to acknowledge and support the role of fishery cooperatives at all levels by providing them with funds to develop infrastructure and establish a progressive supply and value chain for sustainable growth.

FISHERY DEVELOPMENT: GOVERNMENT OF INDIA'S THRUST:

- ❖ **Atmanirbhar Bharat Abhiyaan:** The Prime Minister unveiled a Rs 20 lakh crore economic package aimed at generating employment opportunities in the fisheries sector.
- ❖ **The Pradhan Mantri Matsya Sampada Yojana (PMMSY):** Launched during 2019-20, this scheme has a total project outlay of Rs 20,050 crore, aimed at bolstering India's economy through the fisheries sector. For more details about the Pradhan Mantri Matsya Sampada Yojana, refer to the provided link.

- ❖ **Fisheries & Aquaculture Infrastructure Development Fund (FIDF):** To facilitate the development of fisheries and aquaculture infrastructure, a dedicated fund amounting to Rs 7,522 crore was established.
- ❖ **Blue Revolution:** Introduced in 2014, the Blue Revolution focuses on promoting fish production and enhancing infrastructure development within the fisheries sector. For additional information on the blue revolution, follow the link provided.

FISHERY COOPERATIVE MOVEMENT IN INDIA:

- ❖ The inception of the fishery cooperative movement in India dates back to 1913 when the first fishermen's society, named the 'Karla Machhimar Cooperative Society,' was organized in Maharashtra.
- ❖ With the establishment of the Ministry of Cooperation, fisheries cooperatives have received significant attention and emphasis, reflecting their importance and priority.

NATIONAL DATABASE OF FISHERIES COOPERATIVES:

- ❖ It has been decided to establish fishery cooperatives in each panchayat across the country, aiming to achieve a total of 2 lakhs cooperatives within the next five years.
- ❖ The National Fisheries Development Board (NFDB) and the National Federation of Fishers' Cooperatives Ltd (FISHCOPFED) have been entrusted with the task of expediting this initiative in collaboration with the relevant State/UT authorities.
- ❖ The database will serve the purpose of identifying gaps in the sector, and concerted efforts will be made to address and bridge these gaps.

Fishery Success Stories:

- ❖ Since the establishment of the Ministry of Cooperation in 2021, fishery cooperatives have received significant attention and dedicated focus.
- ❖ **Matsyafed-Kerala:** Established in 1984, this state-level federation has achieved commendable success in fish sales, exports, and retail outlets. Moreover, it operates its own mat-making and processing plants.
- ❖ **Gujarat Fisheries Central Cooperative Association (GFCCA):** Registered in 1956, GFCCA has been successfully running diesel outlets for fishing boats and flourishing fish retail outlets in Delhi.

WAY FORWARD:

- ❖ **Urgent Adoption of Digital Technology:** There is an urgent need for fishery cooperatives to embrace digital technology to offer doorstep services and contribute significantly to providing nutritious food to the populace.
- ❖ **Support from Key Organizations:** To address the longstanding gaps in the fishery sector since independence, crucial support is to be extended by the National Bank for Agriculture and Rural Development (NABARD), National Cooperative Development Corporation (NCDC), and National Fisheries Development Board (NFDB).
- ❖ **Group Accident Insurance Scheme (GAIS):** Over the next 2 to 3 years, it is essential to ensure that more than ten million fishermen are covered under the Group Accident Insurance Scheme (GAIS) for their financial security.
- ❖ **Online Awareness Training for Cooperative Members:** Fishery cooperative members should receive online awareness training about the Pradhan Mantri Matsya Sampada Yojana (PMMSY) scheme and Cooperative Principles to enhance their knowledge and understanding.
- ❖ **Marketing Support for Sustainable Business Plan:** The fisheries cooperative sector must receive marketing support to formulate sustainable business plans that excel in domestic marketing strategies.
- ❖ **Computerization of Primary Fishery Cooperatives:** To accelerate the growth of the fishery sector, computerization of primary fishery cooperatives is crucial for efficiency and streamlined operations.

CONCLUSION:

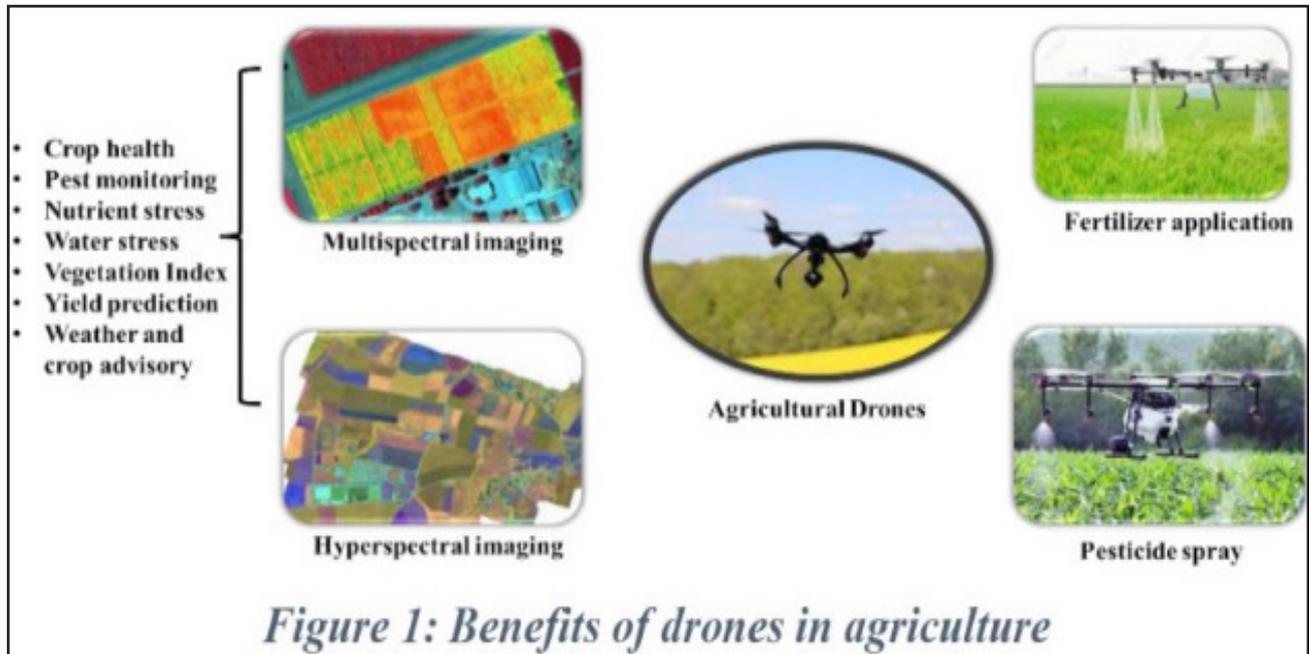
The fisheries sector in India holds vast economic potential and is considered a burgeoning industry. Fishery cooperatives play a pivotal role in ensuring the availability of nutritious food and generating employment opportunities for the population. The government of India remains committed to supporting and uplifting the fishery cooperative sector through well-considered policies and financial aid. The collaboration and synergy between the Ministries of Cooperation and Fisheries are expected to drive the sector's growth and development further.

ONE PACS ONE DRONE

INTRODUCTION:

- ❖ Drones, or unmanned aerial vehicles (UAVs), operate without a human pilot or crew onboard and can be controlled remotely or autonomously.
- ❖ The Indian government has undertaken various initiatives to foster the use of drones and bolster Primary Agricultural Credit Societies (PACS), leading to promising prospects for the rural economy.

INDIAN GOVERNMENT'S INITIATIVES:



- ❖ **Strengthening Primary Agricultural Credit Societies (PACS):** Financial assistance and training are being extended to fortify PACS, enhancing services for farmers and promoting rural development.
- ❖ **Liberalised Drone Rules 2021:**
 - ◆ The Ministry of Civil Aviation introduced the Liberalised Drone Rules 2021.
 - ◆ The objective is to position India as a global drone hub by 2030.
 - ◆ The new rules offer easier and faster approvals for drone operations in the country.
 - ◆ A drone promotion council has been established to facilitate a conducive regulatory environment for the drone industry.
- ❖ **Production-Linked Incentive (PLI) Scheme:** The Central Government approved a PLI scheme amounting to Rs 120 crore dedicated to drones and components. The scheme aims to boost drone manufacturing within India, thereby reducing dependency on imports.
- ❖ **Strengthening Cooperative Movement:** The government has escalated its efforts to strengthen the cooperative movement nationwide, recognizing its significance in socio-economic development.

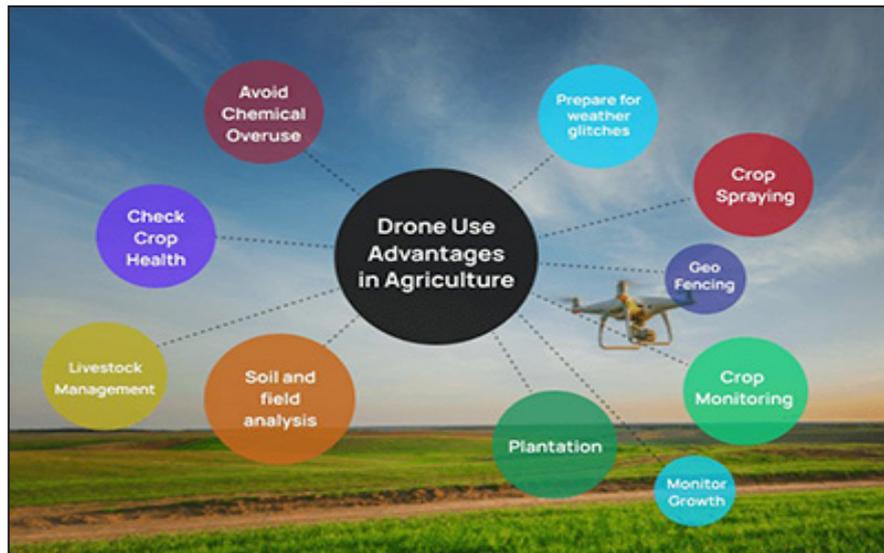
CHALLENGES IN THE AGRICULTURE SECTOR:

- ❖ The agriculture sector faces challenges such as low yield, soil erosion, limited irrigation facilities, inefficient use of inputs, unscientific use of fertilizers, inadequate post-harvest management, and restricted access to financial services.

POTENTIAL OF FOURTH INDUSTRIAL REVOLUTION TECHNOLOGIES:

- ❖ The adoption of digital tech-based agriculture could unlock a value of \$65 billion by 2025, significantly impacting GDP.

ROLE OF DRONES IN AGRICULTURE:



- ❖ Drones offer solutions such as land mapping, agrochemical spraying, seeding, crop yield assessment, and drone-based analytics.
- ❖ **Benefits of agrochemical spraying with drones:** Agrochemical spraying using drones can lead to cost savings of 25-90% on inputs, a 90% reduction in skin exposure, and improved crop yield.
- ❖ **Importance of mapping:** Drone-based land mapping enables precision agriculture and reduces land disputes.
- ❖ **Low levels of farm mechanization in India:** Northern states have adoption rates of 70-80%, but they remain lower compared to countries like China, Brazil, and the United States. Drones can enhance productivity and minimize input costs.
- ❖ **Pest control:** Drones effectively spray pesticides, fungicides, and liquid fertilizers to combat pest infestations and their impact on crops.
- ❖ **Support for farmers:** Drones offer cost reduction and optimization of input use, with various applications like surveying, seeding, spraying, and pollination.

Case Study

The Mahatma Gandhi Ozarde Primary Agriculture Cooperative Society (PACS) in Ozarde village, Wai taluka, Satara district, Maharashtra, is leading the way towards viability through the adoption of progressive farming practices and drone technology. In 2021, the PACS made a significant investment in drone technology to enhance their farming operations. They purchased drones from a Hyderabad-based company called Flymore, at a total cost of Rs. 3 lakhs fifty thousand. This service facilitates the spraying of fields with fertilizers, pesticides, and tonics, leading to improved crop health and yield. The use of drone technology has resulted in significant revenue generation for the PACS through the rental fees charged to farmers. With its forward-thinking initiatives and commitment to innovation, the PACS continues to empower its farmer members and advance agricultural practices in the region.

One PACS One Drone: Action Required & Benefits

- ❖ Establishing multipurpose PACS nationwide, each equipped with one drone.
- ❖ Granting 75% of agricultural drone cost for PACS, similar to FPOs.
- ❖ Drones can transform Indian agriculture, potentially increasing GDP by 1-1.5%.
- ❖ This initiative can create 5 lakh new jobs and usher in a digital era of prosperity.
- ❖ Eligible rural entrepreneurs with pilot licenses can operate agricultural drones.
- ❖ Guidelines provide a net annual profit range of Rs 5 to 6 lakhs for PACS members.

CONCLUSION:

Integrating drones into the cooperative sector in India has the potential to revolutionize the rural economy. The government's initiatives to promote drone manufacturing and strengthen PACS are positive steps. With appropriate policies and investments, India can become a global leader in the drone industry and achieve its goal of 'Sahakar se Samridhi' (Prosperity through Cooperation).

REGENERATIVE AGRI-SUPPLY CHAIN MANAGEMENT

INTRODUCTION:

- ❖ Agriculture Supply Chain Management (ASCM) plays a crucial role in ensuring the efficient flow of agricultural commodities from farm to fork through various stages, including logistics, transportation, shops, procurement, warehousing, inventory management, and processing.
- ❖ The supply chain faces challenges due to factors such as climate change, disruptions, and market volatility, which affect its smooth functioning.
- ❖ Transitioning to a smart regenerative supply chain offers relief to agriculture from social and environmental pressures while promoting sustainability.

IMPORTANCE OF SUPPLY CHAIN MANAGEMENT:

- ❖ ASCM is vital for ensuring food security and fostering long-term agricultural development by connecting various stakeholders in the supply chain.
- ❖ It assists farmers in procuring, marketing, and distributing their agricultural commodities efficiently.
- ❖ Proper resource allocation is facilitated through supply chain management to address issues related to storage, transportation, and inventory management.

ROLE OF COOPERATIVES IN AGRICULTURE SUPPLY CHAIN:

- ❖ Cooperatives play a significant role in supporting the agricultural supply chain by providing technical, financial, and operational support services.
- ❖ Farmer Producer Organizations (FPOs) and other cooperatives engage in bulk purchasing of agricultural inputs and facilitate credit requirements for farmers.
- ❖ These cooperatives serve as platforms for information transmission, marketing, transportation, and distribution of agricultural commodities.
- ❖ Cooperatives also ensure access to quality agricultural inputs like seeds and fertilizers while extending credit facilities to farmers. Additionally, they focus on producing quality agricultural goods alongside marketing and processing activities.
- ❖ Cooperative marketing societies have made progress in improving storage facilities, efficient resource management, timely payments to farmers, and waste minimization.
- ❖ Embracing sustainable practices, cooperatives have transformed into regenerative supply chains, promoting environmentally responsible and sustainable agriculture.

Case Study: Venkateshwara Cooperative Power & Agro Processing Ltd. - A Beacon of Value Addition in Agro Farming

Venkateshwara Cooperative Power & Agro Processing Ltd., mentioned in Mann Ki Baat established in Nashik Maharashtra, exemplifies a strong organizational structure, including farmer and ex-servicemen members. With a current membership of 20,000 farmers, Engaging in the production, processing, marketing, and export of agri-commodities, the society has showcased innovative strategies in cashew nut processing, milk processing, geranium farming, and more. Through these endeavors, the cooperative contributes significantly to value addition in agro farming, boosting rural livelihoods and agricultural prosperity.

Case Study: Eastern Agro Processing and Tea Warehousing Cooperative Society, Assam

Established in 1971, this cooperative society in Assam has significantly contributed to value addition in the agro sector. By installing mustard oil, soya refined oil, and tea packaging units, they promote the mustard and tea value chains. Their collective approach and storage facilities ensure quality, trust, and efficient commodity supply chains, fostering productive gains through widespread selling centers.

WORLD'S LARGEST GRAIN STORAGE PLAN:

The Union Cabinet has granted its approval for the establishment of the "world's largest grain storage plan in the cooperative sector" with a budget of approximately Rs 1 lakh crore. This initiative aims to enhance food security, prevent crop damage, and alleviate distress sales by farmers.



MAJOR HIGHLIGHTS OF THE GRAIN STORAGE PLAN:

- ❖ **Objectives:** The plan focuses on strengthening food security, reducing wastage, and empowering farmers by creating godowns and agricultural infrastructure at the Primary Agricultural Credit Societies (PACS) level.
- ❖ **Convergence of Schemes:** This ambitious project aims to consolidate eight ongoing schemes from three ministries to address the shortage of agricultural storage infrastructure in India.
- ❖ **Pilot Project:** The Ministry of Cooperation will implement a pilot project in at least 10 selected districts to test and refine the approach.

8 SCHEMES IDENTIFIED FOR CONVERGENCE

<p>Ministry of Agriculture and Farmers' Welfare</p> <ul style="list-style-type: none"> ■ Agriculture Infrastructure Fund (AIF) ■ Agricultural Marketing Infrastructure Scheme (AMI) ■ Mission for Integrated Development of Horticulture (MIDH) ■ Sub-Mission on Agricultural Mechanization (SMAM) 	<p>Ministry of Food Processing Industries</p> <ul style="list-style-type: none"> ■ Pradhan Mantri Formalization of Micro Food Processing Enterprises Scheme ■ Pradhan Mantri Kisan Sampada Yojana (PMKSY) <p>Ministry of Consumer Affairs, Food and Public Distribution</p> <ul style="list-style-type: none"> ■ Allocation of food grains under the Food Security Act ■ Procurement ops at MSP
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- ❖ **Inter-Ministerial Committee:** An Inter-Ministerial Committee (IMC) will be established, chaired by the Minister of Cooperation and comprising the Ministers of Agriculture and Farmer's Welfare, Consumer Affairs, Food and Public Distribution, and Food Processing Industries, along with relevant secretaries.

RATIONALE BEHIND THE PLAN:

- ❖ **Strengthening Cooperatives:** The Ministry of Cooperation aims to leverage the strength of cooperatives and transform them into successful business enterprises, aligning with the vision of "Sahakar-se-Samridhi" (Cooperation for Prosperity).
- ❖ **Empowering PACS:** By establishing agri-infrastructure such as warehouses, custom hiring centers, and processing units at the PACS level, the plan seeks to empower PACS, which play a significant role in the agricultural and rural landscape.
- ❖ **Wide Reach of PACS:** With over 1,00,000 PACS and a membership base of more than 13 crore farmers, the plan aims to enhance the economic viability of PACS and contribute to the growth of the Indian agricultural sector.

BENEFITS OF THE PLAN:

- ❖ **Addressing Infrastructure Shortage:** The plan aims to establish godowns at the PACS level to alleviate the country's agricultural storage infrastructure shortage. The program aims to raise India's foodgrain storage capacity by 700 lakh tonnes in the cooperative sector. Currently, the grain storage capacity in the country is about 1,450 lakh tonnes.
- ❖ **Diversification of PACS Activities:** PACS will be empowered to undertake various activities, including functioning as procurement centers for state agencies or the Food Corporation of India (FCI), fair price shops, and setting up custom hiring centers and common processing units. This diversification will enhance the incomes of farmer members.
- ❖ **Reducing Food Grain Wastage:** By creating decentralized storage capacity at the local level, the plan aims to reduce grain wastage, contributing to improved food security.
- ❖ **Preventing Distress Sales:** The plan provides farmers with options to prevent distress sales of crops, enabling them to obtain better prices for their produce. The farmers, apart from storing their produce in the facilities, will also be able to get up to 70% of loans from these societies.
- ❖ **Cost Reduction:** Establishing storage facilities at the PACS level will significantly reduce transportation costs of food grains to procurement centers and fair-price shops.

The establishment of the world's largest grain storage plan in the cooperative sector is a significant step towards strengthening food security, reducing wastage, and empowering farmers. By leveraging the strength of cooperatives and empowering PACS, the plan aims to address the shortage of agricultural storage infrastructure and contribute to the growth of the Indian agricultural sector.

BENEFITS OF DECENTRALIZED STORAGE SYSTEM

- ❖ Reduction of food grain waste and strengthening food security
- ❖ Addresses distress sales and facilitates price discovery
- ❖ Reduction in transportation costs involved from procurement centres to fair-priced retailers
- ❖ Expands the role of the PACS and diversifies commercial activities.

HOW IS DECENTRALISATION POSSIBLE THROUGH PACS?

- ❖ 'Atmanirbhar Sahakar Grams' aims to empower rural self-reliance through cooperative villages. Encouraging farmers to unite, the concept promotes efficient resource utilization, sustainable practices, and holistic rural development. By harnessing collective potential, it fosters resilience and prosperity at the grassroots level, shaping a new paradigm in Indian agriculture.
- ❖ The Government should establish a 'National Cooperative Food Grid (NCFG)' with agriculture cooperatives in every village, fostering efficient resource utilization and improved productivity. Multi-Purpose Village Cooperative Societies (MPVCS) can support storage, grading, and credit facilities, and run various initiatives. The NCFG will eliminate food loss, enhance food security, and generate rural employment opportunities, leading to a self-reliant and prosperous India.

PRIMARY AGRICULTURAL CREDIT SOCIETY (PACS) STORAGE & SUPPLY CHAIN MANAGEMENT:

- ❖ **Multi-service centers:** PACS function as multi-service centres, providing essential assistance to farmers in the procurement and marketing of agricultural produce, while also fulfilling their credit requirements.
- ❖ **Quality inputs for farmers:** PACS play a pivotal role in storing agricultural implements and agri-inputs, ensuring the availability of high-quality inputs for farmers.
- ❖ **Common service centers:** PACS serve as common service centres, effectively delivering a range of services to rural villages.



INITIATIVES TAKEN:

- ❖ The Ministry of Cooperation has established three sector-specific national-level cooperative societies:
- ❖ **Seed societies:** These societies focus on seed production, processing, storage, and distribution to support farmers with quality seeds.
- ❖ **Export societies:** These societies are involved in procurement, storage, processing, marketing, branding, and packaging of agricultural products for efficient export operations.
- ❖ **Organic societies:** These societies offer certification and standardization services to the market through laboratory networks, promoting organic produce.

WAY FORWARD:

- ❖ **Exploration of by-products:** Cooperatives should expand their knowledge on by-products and explore their potential uses to maximize resource efficiency and value.
- ❖ **Sensitization:** The success of supply chain management depends on how well cooperative members are sensitized about the latest advances and applications in the field.
- ❖ **Managing supply chain risks:** Cooperatives need to effectively manage supply chain risks associated with factors such as quality standards, available human resources, climate conditions, and marketing. Digitalization and data analytics can aid in mitigating these risks.

CONCLUSION:

The transition towards a regenerative supply chain has brought significant economic, social, and environmental benefits to cooperatives. By adopting smart and sustainable practices, cooperatives are better equipped to navigate the challenges in the agriculture supply chain, ultimately contributing to the growth and development of the agricultural sector.

COOPERATIVE ENTREPRENEURSHIP FOR ECONOMIC DEVELOPMENT

In India, there exists a rich history of entrepreneurship alongside a strong tradition of cooperative movements. The cooperative movement in the country has consistently utilized both financial and social resources to foster inclusivity and community development.

COOPERATIVE ENTREPRENEURSHIP

- ❖ Cooperative entrepreneurship refers to a form of joint or collective entrepreneurship, where individuals work together as a cohesive unit. Within this context, a "cooperative entrepreneur" emerges as a social leader with a visionary approach, aiming to create businesses that operate democratically for the collective benefit rather than individual gain. The fundamental principles governing cooperatives are based on democratic governance, emphasizing equality and the principle of "one person, one vote."
- ❖ Cooperative entrepreneurship in India emphasizes creating quality employment opportunities, generating wealth, and efficiently utilizing community-level resources.
- ❖ Notably, cooperatives play a significant role in various sectors, such as agricultural financing (19%), fertilizer distribution (35%), fertilizer production (30%), sugar production (40%), wheat procurement (13%), and paddy procurement (20%) as per NCUI (2018).
- ❖ Sixteen Indian cooperatives have been featured in the 'Turnover over GDP Per Capita' category of the World Cooperative Monitor 2022. This includes:
 - ◆ Indian Farmers Fertiliser Cooperative Limited, New Delhi (IFFCO)
 - ◆ Gujarat State Cooperative Milk and Marketing Federation, Anand, Gujarat
 - ◆ Seven state cooperative banks e.g. Kerala, Maharashtra Karnataka, and Pradesh, etc

GROWTH POTENTIAL

- ❖ Identifying cooperative formation prospects becomes effective by addressing community issues and analyzing sectoral trends.
- ❖ Significant growth potential lies in developing economic sectors like manufacturing, services, renewable energy, tourism, transportation, handloom, handicraft, health, and student/campus consumer cooperatives. Moreover, the social welfare sector offers tremendous potential, which may not be economically viable for other commercial enterprises.

Table Ministry-wise and Sector -wise Schemes for Cooperative Development

S. No.	Sectors	Ministry/ Department	Schemes Applicable
1.	Dairy	Fisheries, Animal Husbandry & Dairying	<ul style="list-style-type: none"> ◆ Animal Husbandry Infrastructure Development Fund ◆ National Livestock Mission Supporting Dairy Cooperatives & Farmer Producer Organisations
2.	Fisheries		<ul style="list-style-type: none"> ◆ Fisheries and Aquaculture Infrastructure Development Fund ◆ Pradhan Mantri Matsya Sampada Yojana
3.	Handloom and Handicraft	Textiles	<ul style="list-style-type: none"> ◆ 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 Developments Scheme ◆ North-East Textile Promotion Scheme; National Handicrafts Development Programme. ◆ Handicraft Cluster Development Programme - Handicraft Mega Cluster

4.		MSME	<ul style="list-style-type: none"> ◆ Scheme for Fund for Regeneration of Traditional Industries ◆ Solar Charkha Mission; Khadi Gramodyog Vikas Yojana
5.		Minority Affairs	<ul style="list-style-type: none"> ◆ Upgrading Skills and Training in Traditional Arts/Crafts for Development
6.	Health	Ayush	<ul style="list-style-type: none"> ◆ Central Sector Scheme for Ayurgyan ◆ Central Sector Scheme for Conservation, Development, and Sustainable Management of Medicinal Plants ◆ National AYUSH Mission
7.		Health & Family Welfare	<ul style="list-style-type: none"> ◆ Pradhan Mantri Ayushman Bharat Health Infrastructure Mission ◆ National Digital Health Authority - Pradhan Mantri Jan Arogya Yojana
8.	Tourism & Transport	Civil Aviation	<ul style="list-style-type: none"> ◆ Krishi Udan Scheme
9.		Tourism	<ul style="list-style-type: none"> ◆ Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive
10.		Heavy Industries and Public Enterprises	<ul style="list-style-type: none"> ◆ Faster Adoption and Manufacturing of (Hybrid & Electric) Vehicles in India Scheme
11.	Women SCs, STs, Tribal, etc.	Tribal Affairs	<ul style="list-style-type: none"> ◆ Programme for Development of Scheduled Tribes (PM Vanbandhu Kalyan Yojana)
12.		Social Justice and Empowerment	<ul style="list-style-type: none"> ◆ Vanchit Ikai Samooah aur Vargon ki Arthik Sahayata yojana ◆ Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi Yojana ◆ Scheme for Economic Empowerment of DNT
13.		Minority Affairs	<ul style="list-style-type: none"> ◆ Nai Roshni Scheme for Leadership Development of Minority Women
14.	Environment & Biodiversity	Environment, Forests & Climate Change	<ul style="list-style-type: none"> ◆ National Mission for a Green India ◆ National Coastal Mission
15.		New & Renewable Energy	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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

CHALLENGES

- ❖ **Capital Access:** Accessing capital proves challenging for cooperatives, hindering their growth prospects.
- ❖ **Legal Restrictions:** Legal limitations on operations and membership often impede cooperative progress.
- ❖ **Democratic Decision-making:** The democratic decision-making process can be expensive and time-consuming, affecting operational efficiency.

WAY FORWARD:

- ❖ **Strategic Management:** Cooperative entrepreneurship should focus on enhancing society operations through strategic management, innovation, and creativity.
- ❖ **Dynamic Governance:** Emphasizing dynamic governance mechanisms within cooperative societies will foster adaptability and progress.

- ❖ **Competent Human Resources:** Employing qualified, competent, and committed human resources is essential for cooperative success.
- ❖ **Modern Management Techniques:** Implementing modern management techniques can drive unity and goal achievement.

The cooperative sector is poised for better expansion with government support, exemplified by initiatives like "Sahakar se Samridhi" and the establishment of a dedicated Ministry of Cooperation. Furthermore, fostering the inclusion of women and young individuals with cooperative values and knowledge will contribute to accelerated growth.



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