

YK GIST - JANUARY 2023

MilletsCooperatives



MILLETS: INTERNATIONAL YEAR OF MILLETS 2023

Context: UN General Assembly adopted a resolution declaring 2023 the International Year of Millets, as proposed by India to the Food and Agriculture Organization (FAO).

Introduction

- 2023 marks the celebration of the International Year of Millets which has been spearheaded by the sustained efforts of India.
- The Government of India has prioritised millets due to their huge potential and alignment with several UN Sustainable Development Goals as crops that are resilient to climate change, nutrient-rich, and water-efficient.
- India is poised to become the global hub for millets with a production of more than 170 latch tonnes which makes for more than 80% of the millets produced in Asia.
- The earliest evidence for these grains has been found in the Indus Valley civilization and was one of the first plants to be domesticated for food.
- It is grown in about 131 countries and is the traditional food for around 60 crore people in Asia & Africa.
- A sub-mission on the National Food Security Mission— Nutri Cereals was implemented considering the high-nutritive value, potential for economic empowerment of small & marginal farmers, and contribution to maintaining the earth's biodiversity.
- In April 2018, Millets were rebranded as "Nutri Cereals" and the year 2018 was declared as the National Year of Millets, aiming at larger promotion and demand generation.

International Year of Millets and Sustainable Development Goals:

- IYM 2023 aims to contribute to the UN 2030 Agenda for Sustainable Development, particularly SDG 2 (Zero Hunger), SDG 3 (Good health and well-being), SDG 8 (Decent work and economic growth), SDG 12 (Responsible consumption and production), SDG 13 (Climate action) and SDG 15 (Life on land).
- The sustainable cultivation of millets can support climate-resilient agriculture SDG 13 (Climate Action) and SDG 15 (Life on Land)
 - Millets are often referred to as climate-resilient crops because they can grow on arid lands with minimal inputs and maintenance, are tolerant or resistant to diseases and pests and are more resilient to climate shocks than other cereals.
 - Expanding the production of millets can support the transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, a better environment and a better life.
- The sustainable production of millets can fight hunger and contribute to food security and nutrition SDG 2 (End Hunger)
 - Millets are very often the only crops that can be harvested in the dry season in arid areas with poor fertile soils therefore contributing to the food security and nutrition of vulnerable populations and reducing further soil degradation and helping support biodiversity and sustainable land restoration.
- Millets can be an important part of a healthy diet SDG 3 (Good Health and Well-Being)
 - Millets are good sources of minerals, dietary fibre, antioxidants and protein. With a low glycaemic index, they are a good option for people with high-blood sugar.
 - Dietary fibre has a role in regulating bowel function, blood sugar and lipids, and satiation.
 - Millets are also gluten-free and an excellent and cost-effective source of iron for iron-deficient diets.
- Greater consumption of millets can offer opportunities to smallholder farmers to improve their livelihoods SDG 8 (Decent Work and Economic Growth).

- By promoting millets and regaining market opportunities, additional sources of 0 revenue can be created boosting economic growth.
- Greater trade in millets can improve the diversity of the global food system SDG 8 (Decent Work and Economic Growth) and SDG 12 (Sustainable Consumption and Production)
 - Millets, including sorghum, account for less than 3% of the global grains trade. With 0 the need to improve the resilience of global trade and its ability to respond to sudden changes in the foodgrain market, millets are a valuable option to increase output diversity and mitigate risks related to production shocks.

Millets in India – Historical Evidence

- Kalidasa, in his 'Abhijnana Shakuntalam', has sage Kanva pouring foxtail millet while bidding farewell to Shakuntala in Dushyant's court, which indicates the auspicious nature attributed to this millet.
- There is mention of millets in Yajur Veda's verses.
- Sushruta in his Samhita classified cereals as dhanya varga, khudhanya varga and samidhanya varga where khudhanya varga included various millets.
- Kannada poet Kanakdasa personified ragi as the weaker sections of society through his metaphoric creation `Rarnacilaanya Charitre', which showed its conflict with the 'mighty' rice and gave a powerful social message.
- Kautilya's Arthashastra has a mention of various millets and their various properties when soaked or boiled.
- Ain-i-Akbari, written by Abul Fazl, records millets and their cultivating regions.

All about Millets

What are Millets?

- Millets are coarse grains and a repository of protein, fibre, vitamins and minerals.
- They include jowar (sorghum), ragi (finger millet), korra (foxtail millet), arke (kodo millet), sama (little millet), bajra (pearl millet), chena/barr (proso millet) and sanwa (barnyard millet).
- Millets were one of the oldest foods known to humans. But they were discarded in favour of wheat and rice with urbanization and industrialization
- India is their largest global producer, with a 41% market share, and a compound annual growth rate of 4.5% is projected for the global millet market in the coming decade.

What are the advantages with Millets?

Climate Resilience

- Being hardy crops, they can withstand extreme temperatures, floods and droughts.
- They also help mitigate the effects of climate change through their low carbon footprint of 3,218-kg CO2 equivalent per hectare, as compared to wheat and rice, with 3,968kg and 3,401kg, respectively, on the same measure.

Restoration of ecosystems and sustainability:

- Land degradation has been a major problem in India, causing massive economic losses year after year. Drought-tolerant crops, like millets, with low dependence on chemical inputs would put far less pressure on ecosystems.
- The inter-cropping of millets with other crops is especially beneficial because the fibrous roots of millet plants help in improving soil quality, keep water run-off in check and aid soil conservation in erosion-prone areas, thereby restoring natural ecosystems.

Biofuel and Ethanol Blending

- In June 2021, government set a target of achieving 20% ethanol blending with petrol by 2025.
- Most bio-ethanol in India is produced using sugar molasses and maize.
- However, a study conducted among farmers in Madhya Pradesh showed that bio-ethanol can be created using sorghum (jowar) and pearl millet (bajra), and that this fuel could bring down carbon emissions by about half.
- Estimates also suggest that millets can deliver greater returns than maize, while using 40% less energy in processing. Millets also offer a significant cost advantage over maize as a feedstock for bio-ethanol production.

A cultural connection:

- The cultivation of millets is deep-rooted in Indian culture.
- Organizations like Deccan Development Society have formed women's collectives in Telangana and are promoting millets through a culture-centric approach.
- Such crop sensitization has filtered into urban settings too. In 2018, the #LetsMilletCampaign in Bengaluru saw the use of millets in dishes such as risotto and pizza by restaurateurs.

Helps address Sustainable Development Goals:

- Millets can play a role in India's sustainability policy interventions. Contemporary research developments have shed light on the influence of millets on energy optimization, climate resilience and ecosystem restoration.
- Millet farming has led to women's empowerment, too. The Odisha Millet Mission, for example, saw 7.2 million women emerge as 'agri-preneurs'.



Where does India stand in Millet production?

- India is the largest producer of millet in the world with a share of 41% in 2020, as per FAO. Nine types are grown as kharif crops in over 20 States in the country.
- Major millets include finger millet (ragi or mandua), pearl millet (bajra) and sorghum (jowar) and minor millets include foxtail millet (kangani or kakun), barnyard millet (sawa or sanwa, jhangora), little millet (kutki), kodo millet (kodon), proso millet (cheena) and browntop millet.
- Rajasthan, Karnataka, Maharashtra and Andhra Pradesh are leading producers.
- Though productivity has increased over the years, the area under cultivation of millets declined, especially after the Green Revolution, with a policy thrust on other grains
- This gradually impacted the expansion of millets production in the country. In 2019, India accounted for 80% of the total production of these grains in Asia and 20% globally around 170 lakh tonnes from138 lakh hectares of land, providing yield per hectare greater than the global average.
- India is also among the top five exporters— India exported millets worth \$64.28 million in 2021-22 and \$59.75 million in 2020-21.
- Classification of millets
 - Major Millets Finger Millet (Ragi/ Mandua), Pearl Millet (Bajra), Sorghum (Jowar).
 - Minor Millets Foxtail Millet (Kangani/Kakun), Kodo Millet, Proso Millet (Cheena), Barnyard Millet (Sanwa/Sawa/Jhangora), Little Millet (Kutki).
 - Pseudo Millets Amaranth (Chaulai), Buckwheat (Kuttu).
- Rajasthan, Karnataka, Maharashtra, Uttar Pradesh and Haryana are the top five millet producing states in India.

GROWTH OF MILLETS

- Millets are often grown in tropical and subtropical regions at an altitude of 2,100 metres. 8-10 degree Celsius is the required minimum temperature for germination.
- These crops can tolerate a certain level of soil alkalinity and adapt well to a variety of soil types, from extremely poor to very fertile.
 - Sandy, loamy, and alluvial soils with good drainage are the best types of soil for them.
- Its cultivation in Jhum field is ideal during the months of April and May. The ideal growth temperature range for millets is between 26-29° C for optimum production and good crop yield.
- It is grown in regions with rainfall between 500 and 900 millimetres.

What are government initiatives to push Millets production?

- **Part of Food Security**: While the National Food Security Act(NFSA) does not mention millets, coarse grains are included in the definition of "foodgrains" under Section 2(5) of the NFSA.
- **Procurement:** The government has set a target to procure 13.72 LMT coarse grains during the Kharif Marketing Season (KMS) 2022-23, more than double the 6.30 LMT procured during KMS 2021-22.
- **MSP for Millets:** The government declares a Minimum Support Price (MSP) for jowar, bajra, and ragi.
- International Year of Millets: Millet is grown mainly in low-income and developing countries in Asia and Africa, and are part of the food basket of about 60 crore people across the globe. By proposing the resolution to celebrate 2023 as the International Year of Millets, India

pitched itself as a leader of this group. This is similar to India's initiative of International Solar Alliance.

New invention:

- The Indian Agricultural Research Institute (IARI) has bred Pusa-1201, a hybrid bajra.
- It gives an average grain yield of over 2.8 tonnes and potential of 4.5 tonnes per hectare.
- It matures in 78-80 days and is resistant to downy mildew and blast, both deadly fungal diseases.
- The grains have 13-14% protein, 55 mg/ kg iron (normal level is 50 mg/ kg) and 48 mg/ kg zinc (normal: 35 mg/ kg).

What are the concerns with millets?

- Inadequate Push by Government: The quantity of coarse grains procured for the Central Pool and distributed under the NFSA has been negligible. Only 2.64 lakh metric tonnes (LMT) of coarse grain was available in the Central Pool on November 1, 2022. In comparison, the stocks of rice, wheat, and unmilled paddy were 265.97 LMT, 210.46 LMT, and 263.70 LMT respectively.
- Poor Consumption behaviour: Less than 10 per cent of rural and urban households reported consumption of millets. For instance: In rural areas, of the 11.231 kg of cereals consumed by a person in a month in 2011-12, 6.125 kg was rice, and 4.439 kg was wheat. Very little millets were consumed: 201 grams jowar, 246 g bajra, 75 g ragi, and 4 g of small millets.
- Regional Imbalancement in consumption of millets: The consumption of millets was reported mainly from Gujarat (jowar and bajra), Karnataka (jowar and ragi), Maharashtra (jowar and bajra), Rajasthan (bajra), and Uttarakhand (ragi).
- Other concerns include
 - Unavailability of good quality seeds
 - **Restricted cultivation** 0
 - Low shelf life of grains 0
 - Lack of research 0
 - Absence of machinery for processing 0
 - Market gaps 0
 - Lack of Consumer awareness 0

Suggestion measures:

- Promoting Use of millets: The nutritional traits, similar to bajra, are present in other millets too: jowar (sorghum), ragi (finger millet), Kodo (Kodo millet), kutki (little millet), kakun (foxtail millet), sanwa (barnyard millet), cheena (proso millet), kuttu (buckwheat) and chaulai (amaranth).
 - Their use should also be increased. 0
 - Besides midday meals, millets could be served in the form of ready-to-eat foods 0 such as cookies, laddu, murukku, nutrition bars, and extruded snacks (think healthier versions of Maggi, Kurkure, or Cheetos).
- Huge market base for millets: India, according to the latest official data for 2021-22, has 26.52 crore children enrolled in 14.89 lakh schools from the pre-primary to higher secondary levels.
 - In addition, 71 crore children and 1.80 crore pregnant and lactating women are 0 being provided supplementary nutrition in 13.91 lakh Anganwadis care centres.
 - Given the dire need to **alleviate micronutrient malnutrition** especially iron and 0 zinc deficiency that are major causes of anaemia and stunting respectively, while also contributing to impaired cognitive performance and vulnerability to diarrhoea — millets could be made a staple part of children's diets.

- One bajra meal each day in Government Schemes: Every schoolchild and Anganwadis beneficiary can be served one daily hot meal based on locally-sourced bajra, jowar, ragi, Kodo, or kutki, along with a 150-ml glass of milk and one egg.
 - It will help combat hidden hunger, besides giving a boost to crop diversification by creating demand for millions of small millet, dairy and poultry farmers.
- The Centre has two existing schemes Pradhan Mantri Poshan Shakti Nirman and Saksham Anganwadi and Poshan 2.0 — with a combined budget of Rs 30,496.82 crore in 2022-23. These can be better leveraged by making them more millets-focused.
- Government's funding: The Centre could fund any state willing to procure millets specific to their region exclusively for distribution through schools and Anganwadis.
 - Odisha already has a dedicated millet mission that undertook procurement of 32,302 tonnes worth Rs 109.08 crore, mainly of ragi, in 2021-22.
 - Rajasthan, Uttar Pradesh, and Haryana might want to do the same in bajra, just as Maharashtra may for jowar, Karnataka for ragi and Madhya Pradesh for Kodo/ kutki.
- Combined funding: A combination of central funding with decentralised procurement linked to nutrition goals — specifically the eradication of hidden hunger among school-age children — can do for millets what the Food Corporation of India achieved with rice and wheat.
- The Union government in 2022 announced the "Millet Challenge" for startups, with a seed • grant of Rs 1 crore each to three winners to design and develop innovative solutions for and across the millet's value chain.
- Many states have included Millet in the National Nutrition Mission and Mid-Day Meal ٠ Scheme. Many startups are contributing towards the millets.
- The Government is also enabling startups for the export promotion of value-added • products like noodles, pasta, breakfast-cereal mix, biscuits, cookies, snacks, and sweets in the Ready to Eat (RTE) and Ready to Serve (RTS) categories.

Therefore, it is evident that there is a need to

- Promote the production of more millets by providing price support to farmers as there's • not only a social dimension but also a nutritional and environmental aspect associated with these cereals.
- Developing a decentralised model of processing capabilities so that the growers stand to benefit at a community level and in the growing regions. Thus, Promoting millets could help governments save expenditure on health and nutrition.

Millets in Diet

- Millets are extremely nutritious and good for health and they also need less water and can stored for years, as they have a long shelf life. Millets make for a perfect healthy meal. They are loaded with high amount of starch and proteins, which can be beneficial, if added to the daily diet.
- These little grains are a powerhouse of nutrition, which help in improving heart health and can effectively reduce coronary blockage. It is enriched with the goodness of magnesium, which can effectively reduce blood pressure and risk of stroke and heart attacks.
- Millets are a rich source of magnesium, which help in stimulating the level of insulin, thereby increasing the efficiency of glucose receptors in the body, which further helps in maintaining a healthy balance of sugar level in the body.
- Rich in fibre, millets make for a healthy cereal, which can help in digestion and can relieve bowel issues.

- Millets are loaded with the components such as curcumin, ellagic acid, Quercetin and catechins, which further help in removing foreign agents and free radicals and balance the enzymatic reactions in the body. These can naturally detoxify the blood.
- Niacin, vitamin B3- a micronutrient found in millets is useful for proper metabolism, nervous system functioning and keeps the digestive system healthy. It is an essential nutrient means that it cannot be synthesised by the body and is obtained from food which we eat.
- The nutrients like magnesium, zinc and fibre present in millets makes it excellent food for diabetic and PCOD patients.
- Folic acid present in millets aid in iron assimilation, is good for skin health and also fertility.



Image Source: Yojana

Impact of Millets on Diabetes Mellitus & Heart Disorders:

- Millet is an excellent source of leucine, slowly digesting carbohydrates (and minerals), blunting the otherwise sudden increase in postprandial glucose level, thus making it a nutritious food for diabetes.
- Millets enriched in niacin reduce Low-density lipoprotein (LDL) and triglyceride levels and correct lipoprotein abnormalities. Furthermore, millets retard the absorption of dietary cholesterol.
- Thus, millets-rich foods are suggested as one of the means to reduce the risk of heart disorders.

Impact of Millets on Cancer:

- Millet grains include phenolic components such as phenolic acids, flavonoids, and tannins, making them anti-nutrients that lower the incidence of colon and breast cancer in animals.
- An in-vivo study found that adding foxtail millet to one's diet promotes the activation of the gut receptor, which in turn aids in the treatment of colon cancer linked to colitis. As a result of the study, it was discovered that millet-based diets aided in suppressing the STAT-3 signalling pathway.
 - In cancer cells, unregulated cell proliferation, angiogenesis, and apoptosis evasion are all crucially influenced by the STAT transcription factor family.

Impact of Millets on Brain Disorders:

• Several studies have shown that excess fat consumption in the human diet can not only increase risk of heart diseases but recent epidemiological research has revealed that dementia risk is also increased by a high-fat, high-calorie diet.

- Due to the fact that an 1-IFD has been shown to generate oxidative brain dysfunction may result from stress in the brain. Additionally, oxidative stress is reportedly a catalyst and aggravating factor for neurodegenerative conditions like Addison's disease (AD).
- Increased oxidative stress also stimulates proinflammatory factor production, which results in inflammation in the brain, which can cause dementia.

Millets consumption during Pregnancy

- The millet-based supplementary food products are very nutritious for pregnant women and lactating mothers. Millet milk malt is prepared from the flour of various millets, jaggery and milk powder. Ragi cutlets are prepared from Ragi (Finger millets) flour which is a rich source of protein, iron, calcium, phosphorus, and dietary fibres.
- One of the many nutrient-rich grains for pregnant women is Pearl millets known as Bajra. It is an excellent source of iron which helps in improving haemoglobin levels in pregnant and lactating mothers. It is also rich in dietary fibres, antioxidants, zinc, magnesium, copper and Vitamin.
- Studies show that millet-based foods contribute to improving the Body Mass Index (BMI) in pregnant women and lactating mothers.
- Lactating mothers are also advised to consume Ragi to increase the production of breast milk.
- Kodo millets are highly nutritious. They are gluten-free, easy to digest, and rich in phytochemical constituents, antioxidants and dietary fibre.





ALL INDIA PRELIMS TEST SERIES 2023



COOPERATIVES

History & Evolution of India's Cooperative Movement

- According to the International Cooperative Alliance (ICA), cooperatives are **people-centred enterprises jointly owned** and democratically controlled by and for their members to realise their common economic, social and cultural needs and aspirations.
- Friedrich Raiffeisen, who along with compatriot Schulze-Delitzsch in Germany, and Luzzatti of Italy, pioneered cooperatives in Europe.
- Raiffeisen based them on the principles of **self-help**, **self-governance**, **and self-responsibility**.
- Known for their trustworthiness and resilience against financial crises, most were known as **Raiffeisen banks**, spreading to other parts of Europe and America.
- India's cooperative movement originated in the agriculture and related sectors as a means for farmers to pool their resources to prevent exploitation by money lenders.
- India's cooperative movement was formalised at the end of the 19th century, inspired by the German model of agricultural credit banks.
- In 1904, the British government in India enacted the Cooperative Credit Societies Act. While this Act dealt solely with the extension of credit, the sector was opened up to other activities in 1912. Administrative reforms in 1919 transferred cooperatives to provincial control.
- After Independence, the framers of the Constitution placed **cooperatives on the State list.** They came to be considered instruments of socioeconomic development and became an essential focus of the initial Five-Year Plans. As a result, States made their own laws to regulate cooperatives within their jurisdiction.
- Article 43B of the Indian Constitution inserted by the 97th Amendment says that "states shall endeavour to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies".
- According to the **Ministry of Cooperation**, there are around 8.5 lakh cooperatives in India, with about 1.3 crore people directly attached to them.
 - Union government has created a new Ministry of Cooperation in 2021 for strengthening the cooperative movement
 - Also, the percentage of cooperative members in proportion to the total population increased from 3.8% in 1950-51 to 22.2% in 2016-17.
- Today, Cooperatives in India range from those providing credit to those producing, procuring, or marketing products like fertilisers, milk, sugar, and fish.
 - Indian Farmers Fertilisers Cooperative (IFFCO) has around a third of the market share in fertilizers, while Gujarat's Amul is a highly profitable dairy cooperative.

Constitutional Provision:

- Cooperatives are a state subject in the seventh schedule of the Indian Constitution.
- However, there are many societies whose members and areas of operation are spread across more than one state.
 - Eg. most sugar mills along the districts on the Karnataka-Maharashtra border procure cane from both states.
- Through the **97th constitutional amendment**, **Part IXB (The Co-Operative Societies)** was inserted into the Constitution.
- The right to form cooperative societies was included as Right to Freedom under article 19

 (1) under part III of the Indian Constitution.
- Article 43-B (Promotion of Cooperation societies) was inserted as one of the Directive principles of state policy.

What are Multi-State Cooperative Societies?

- Cooperatives are a state subject, but there are many societies such as those for sugar and milk, banks, milk unions etc whose members and areas of operation are spread across more than one state.
- For example, most sugar mills along the districts on the Karnataka-Maharashtra border procure cane from both states. They draw their membership from both states, and they are thus registered under the Multi-State Co-operative Societies Act, 1984 (amended in 2002)
- Their board of directors has representation from all states they operate in.
 - The board of directors are from all the States these collectives operate in and \cap controls all finances and administration function.
- Administrative and financial regulation & monitoring of these societies is with the central registrar, with the law making it clear that no state government official can wield any control over them.
- Since the law was enacted, 1,479 such societies have been registered, of which 9 have been deregistered since.
- Maharashtra has the highest number at 567, followed by Uttar Pradesh (147) and New Delhi (133).
- Credit societies constitute the bulk of registered societies at 610, followed by agro-based ones (which include sugar mills, spinning mills etc) at 244. There are 96 multistate cooperative dairies and 66 multistate cooperative banks.

What was the 97th Constitutional Amendment Act and what was the judicial verdict on it?

- The Constitution (97th Amendment) Act, 2011 made the following changes
 - New Part IXB regarding the cooperatives working in India added 0
 - 0 Part IXB dictated the terms for running cooperative societies like the number of directors a society should have or their length of tenure and even the necessary expertise required to become a member of the society.
 - In Art. 19(1)(c) the word "cooperatives" was added after "unions and associations". This enables all the citizens to form cooperatives by giving it the status of the fundamental rights of citizens.
 - A new Article 43B was added in the Directive Principles of State Policy (Part IV) 0 regarding the "promotion of cooperative societies"
- Gujarat High Court in 2013 had struck down certain provisions of the 97th CAA by reasoning that Parliament cannot enact laws with regard to cooperative societies as it is a State subject. This was appealed by the Centre in Supreme Court.
- Supreme Court in July 2021 upheld the validity of the 97th constitutional amendment Act, 2011 but struck down certain provisions of it
 - Struck down part of Part IXB which dealt with cooperative societies confined to \circ states. The court held that cooperative societies come under the "exclusive legislative power" of State legislatures and the Centre can't shrink State's exclusive authority.
 - However, Part IXB of the Constitution is operative only in so far as it concerns multi-0 State co-operative societies. This is because Multi-State Cooperatives come under Union List.
 - The court also took exception to the fact that the 97th Constitutional Amendment was passed without ratification from the States.
- Significance of the verdict
 - It allays States' fears that the new Union Ministry of Cooperation would have disempowered them.

Judgement reiterates the State's exclusive legislative power over cooperatives 0 within their territories.

Significance of Cooperative Societies

- Consumer societies meet their consumption requirements at concessional rates.
- Marketing societies help the farmer to get remunerative prices.
- The Cooperative processing units help in value additions to the raw products.
- They also help in building up storage, warehouse, cold storage, rural roads and in providing facilities like irrigation, electricity, transport, education and health.
- They play the role of a **balancing factor** between the public and private sectors and also • supplement the work of the government and its agencies.
- Many Cooperative societies have successfully promoted rural development
 - National Cooperative Development Corporation (NCDC) 0
 - National Agricultural Cooperative Marketing Federation of India (NAFED) 0
 - AMUL and Co-operative Rural Development Trust (CORDET) 0
- They play an important role in poverty reduction, promoting women's empowerment, and improving literacy rate and skill development.
- It can bring the economically weaker section to the forefront of economic growth and • ensure their financial stability. Some examples are Amul and Lijjat Papad.
- It also helps in empowering women. For instance, Rs 60000 crores are directly remitted into • the accounts of women farmers that are associated with Amul Cooperative.
 - Some of the successful Women Cooperatives of India are: 0
 - Self-Employed Women's Association (SEWA) Cooperatives
 - Swashrayi Mahila SEWA Bank
 - Sangini Child-Care Workers Cooperative
 - Mahila Super Bazar
 - Bhramaramba Mahila Cooperative Banking Society
 - Usha Cooperative Multi-Purpose Store Limited etc
 - Lijjat Cooperative Movement and Amul Cooperatives are the most successful 0 examples of engaging a large number of women in cooperatives. For instance, Lijjat engaged approximately 45,000 women.
 - As rural women are primarily engaged in agriculture and allied activities, cooperatives should take up gender-responsive initiatives like parity in payment, promoting local products of rural women's associations, enhancing knowledge and awareness, and ensuring favourable cooperative legislation.
- Sahkar Se Samriddhi
 - 0 Sahkar Se Samriddhi Mission aims to ensure equitable and widespread growth of cooperatives.
 - The reach of cooperatives can be widened in various sectors like fishery, primary 0 production, agricultural processing, etc.
 - The initial efforts include creating primary societies or primary cooperative credit 0 societies in every village of India and connecting them to the nearby cooperative banks.
 - It is a well-established fact that cooperatives have the potential to equitably 0 distribute the profits and reap benefits for all its members. Thus in the coming two decades government is looking forward to deepening the cooperative movement in the country.



Source: Kurukshetra

The cooperatives have contributed significantly to agriculture development through the White and Green Revolutions.

Agriculture in India is dominated by small and marginal farmers, accounting for 86.66 per cent of the total operational land holdings.

• Farmer Producer Organizations/ Farmer Producer Companies are viewed as beneficial alternatives to cooperatives. The main goal of these entities is to encourage smallholder commercialization, increase the bargaining power of farmers, and boost farm incomes.

Agriculture Cooperatives: An agriculture cooperative or farmers' cooperative is an institution through which farmers pool their resources for farming activities. The goal of the Farmer Producer Organizations is to organize farmers for

- Backward linkages of inputs like seeds, fertilizer, credit, insurance, information, and agriculture extension services.
- Forward linkages for marketing, processing, market-led agricultural production, etc.

What are the issues with the cooperative sector?

- As envisioned by the Indian constitution, the independent and **autonomous character** of cooperative societies was crucial to their functioning.
- However, as **government and legislative control** of cooperatives increased over the years, there were increasing reports of mismanagement and corruption.

- Their inclusion in the planning process as development instruments made the sector an avenue for dispensing patronage to the supporters of ruling political parties, either by way of nomination to governing boards or sanctioning schemes specific to the cooperatives.
- Also, providing various forms of financial assistance enabled State governments, "in the name of public interest," to directly intervene in the working of cooperatives which are legally autonomous.
 - Not surprisingly, the most successful Indian cooperatives such as the AMUL, Indian 0 Farmers Fertiliser Cooperative Limited (IFFCO) and Krishak Bharati Cooperative Limited (KRIBHCO), are outside government control.
- Globally, seven of the top 10 cooperatives by asset size are from the **financial sector**. The Indian financial sector is nowhere in the picture going by asset size.
- When a cooperative bank scales up, maintaining its cooperativeness is a challenge. Cooperatives have also become avenues for regulatory arbitrage, circumventing lending and anti-money laundering regulations.
- MSCSs are facing issues regarding trust, which is the very basis of cooperation. MSCSs were, therefore, brought under the Prevention of Money Laundering Act, 2002 in 2018, and all urban and MSCS banks were brought under the radar of the Reserve Bank of India in 2020.
- These developments have brought MSCSs under **multiple controls from the Centre**, giving rise to fears that monitoring would take a top-down approach as opposed to a grassroots one.
- Cooperative banking suffered from the top-down quality. Recent initiatives such as an umbrella organisation for urban cooperatives and a new Ministry of Cooperation at the Centre threaten to further this approach in the absence of safeguards.

Why does the government plan to amend the Multi-State Cooperative Societies Act?

Experts on cooperatives talk of loopholes in the Act.

- The exclusive control of the central registrar, who is also the Central Cooperative Commissioner, was meant to allow the smooth functioning of these societies.
- The central Act cushions them from the interference of state authorities so that these societies are able to function in multiple states. What was supposed to facilitate smooth functioning, however, has created obstacles.
- Experts pointed out that for state-registered societies, financial and administrative control rests with state registrars who exercise it through the district- and tehsil-level officers.
 - Thus if a sugar mill wishes to buy new machinery or go for expansion, they would 0 first have to take permission from the sugar commissioner for both. Post this, the proposal would go to the state-level committee that would float tenders and carry out the process.
- While the system for state-registered societies includes checks and balances at multiple layers to ensure transparency in the process, these layers of checks & balances do not exist in the case of multistate societies.
 - Instead, the board of directors has control of all finances and administration. For 0 expenditure above a certain level, the annual general body meeting of the society has to be called.
- Many experts have noted there is an apparent lack of day-to-day government control on such societies. Unlike state cooperatives, which have to submit multiple reports to the state registrar, multistate cooperatives need not.
- The central registrar can only allow inspection of the societies under special conditions a written request has to be sent to the office of the registrar by not less than one-third of the members of the board, or not less than one-fifth of the number of members of the society. Inspections can happen only after prior intimation to societies.

- The on-ground **infrastructure for the central registrar is thin** there are no officers or offices at the state level, with most work being carried out either online or through correspondence.
- For members of the societies, the **only office where they can seek justice is in Delhi**, with state authorities expressing their inability to do anything more than forwarding their complaints to the central registrar.
- There have been instances across the country when **credit societies have launched ponzi** schemes taking advantage of these loopholes. Such schemes mostly target small and medium holders with the lure of high returns. Fly-by-night operators get people to invest and, after a few instalments, wind up their operations.
 - In Maharashtra, the state commissioner used to get multiple complaints of this nature but could not take any action, given the lack of ground staff necessary for verifying the antecedents of such societies.

What are the key provisions of the proposed Multi-State Cooperative Societies (Amendment) Bill, 2022?

- To plug the "loopholes" in the MSCS Act, the Centre introduced a Bill seeking to amend the 2002 law for more "transparency" and increase the "ease of doing business".
- The amendments have been introduced to improve governance, **reform the electoral process**, strengthen monitoring mechanisms and enhance transparency and accountability.
- The Bill provides for the creation of a central Co-operative Election Authority to supervise the electoral functions of the MSCSs.
- The Bill also seeks to **improve the composition of the board** and **ensure financial discipline**, besides enabling the raising of funds in MCSCs.
- It envisages the creation of a **Co-operative Rehabilitation, Reconstruction and Development Fund** for the revival of sick MSCSs , financed by existing profitable MSCSs which will have to deposit either Rs. 1 crore or 1% of their net profit.
- In order to make the governance of these societies more democratic, transparent and accountable, the Bill has provisions for appointing a **Cooperative Information Officer** and a **Cooperative Ombudsman**.
- To promote equity and inclusiveness, provisions relating to the **representation of women and SC/ST members** on MSCS boards have been included.
- The Bill makes only members eligible to be elected to the board or as office bearers of the cooperative society.
- The Bill also increases the penalty amount for violation of the law to Rs. 1 lakh and potential imprisonment from six months to a year.

Criticisms against the bill:

- No provision in the Constitution: According to the critics, the Constitution distinguishes between Cooperative Societies of State and Multi-State Cooperative Societies which are governed by the Union of India.
- No provision of the Constitution makes way for merging a cooperative society which is incorporated under State law with a Multi-State Cooperative Society.
- **Centre's encroachment:** Through the introduction of the Clause concerning the merger through the Bill, the Centre is indirectly encroaching on the rights of State Co-operative Societies according to critics. It is being argued that such actions "impinges" on the rights of the States and is against India's federal structure.
- **Beyond legislative competence:** It is also being claimed that this is beyond the legislative competence of the Union as State cooperative societies are within the exclusive jurisdiction of States.

Way Forward:

- India has more than 1500 multi-State co-operative societies serving as an important tool to promote the economic and social betterment of their members. In order to make the governance of these multi-State Cooperative societies more democratic, transparent and accountable, provisions for setting up of the Cooperative Election Authority, Cooperative Information Officer and Cooperative Ombudsman have been proposed in the amendment.
- Developments over the years also necessitated changes in the existing Act so as to strengthen the cooperative movement in multi-state cooperative societies. Therefore, the government proposed to amend the Act."

Steps that can be further taken to strengthen cooperatives

- Convergence of the schemes of Micro, Small, and Medium enterprises (MSMEs) and the cooperative sectors.
- A common interactive portal with all information on cooperatives, potential employeremployee mapping, credit accessibility, etc should be formulated.
- A national level University dedicated to cooperatives is under consideration, which is a good step in spreading awareness and backing cooperative entrepreneurship as a career option.
- Training and skills development is also essential for capacity building.
- Technology upgradation has become an absolute necessity in today's fast-changing world.
- Timely, adequate, affordable, and collateral-free finance facilities will also help in achieving the desired targets.
- Marketing of products and services has remained a challenge for cooperatives. In this direction, a holistic approach helping them through tariff, non-tariff, and digital solutions would go a long way in both domestic and international markets.
- Bigger cooperatives should mentor small and weak cooperatives to make them competitive and maximize community development.
- Subsidized participation of cooperatives in regional, state, and national fairs should be considered.
- There is a need to deepen cooperative movement in the northern, north-eastern, and eastern parts of the country, as their spread is considerably low.

Schemes adopted by different Ministries to expand cooperatives:

- Ministry of Agriculture and farmers welfare adopted the Agriculture Infrastructure Fund that provides interest subvention of 3 percent and a credit guarantee for establishing infrastructure projects.
- Department of Animal Husbandry and Dairying implements Dairy Processing and Infrastructure Development fund.
- Department of Fisheries provides a concessional support facility through the Fisheries and Aquaculture Development Fund.
- Tribal Cooperative Marketing Development Federation of India implements the Van Dhan programme.
- Government e-Marketplace was expanded to allow cooperative societies to register as buyers on the GeM platform.

Ways to Broaden the Outreach of Cooperatives

- Information and communication technology (ICT):
 - Use of innovative ICTs like the <u>Internet of Things</u> (IoT), big data analytics, machine learning and <u>Artificial Intelligence</u> (AI) have great potential to improve the working of the agriculture cooperatives.
 - \circ They can support complex decision-making.
 - Deployment of smart technologies enhances final productivity, reduces costs, and optimizes the decision making process.

- They also provide the facilities for on-farm management, efficiency, and quality control tools.
- Data Aggregation:
 - Use of digital technologies in agriculture help in creating information wealth and can immensely help in planning agriculture operations.
 - The cooperatives can thus use methods like GIS geospatial analysis, map analytics, etc to maximize their profits.
- Digital Technologies:
 - Cooperatives can become crucial players in the digital revolution and garner benefits for the farmers.
 - They are important agents for necessary knowledge transfer and reducing barriers like lack of awareness.
 - For instance, in Spain a cooperative used the Internet of Things for Olive and Tomato production. Similarly, the Italian cooperative APOFRUIT is making use of smart technologies in grape cultivation.
 - In India, all the 1200 village-level milk producer societies of the Amul dairy have been covered under digitalisation and it has become the country's first cooperative to adopt digital tracking and monitoring system for artificial insemination.

Need for regulations and policies

- The use of digital technologies creates several concerns around privacy, data security, data ownership, competition, etc.
- This concern thus mandates the creation of desired rules and regulations.

With the use of emerging technologies in the cooperative sector efficiency, productivity, and quality of services can be increased manifold. They can also help in effective and efficient decision making thereby boosting the profits for the members of the cooperatives.

Geospatial Mapping of the Cooperatives

Context: Recently, a national database on cooperatives has been initiated by **the Ministry of Cooperation** for single-point access to information on cooperatives of different sectors and to develop a process for better understanding of cooperatives.

- In the first phase of development of the National Cooperative Database, data collection of cooperatives of three sectors – primary agricultural credit societies, dairy and fisheries – is being taken up.
- Maharashtra has the highest number of cooperative societies, followed by Uttar Pradesh. About Geospatial data Infrastructure:



• A Spatial Data Infrastructure, also called geospatial data infrastructure, is a data infrastructure implementing a framework of geographic data, metadata, users and tools that are interactively connected in order to use spatial data in an efficient and flexible way.

Report of the Geospatial Infrastructure in India:

- **National Geospatial Policy 2022** provides the framework to develop geospatial infrastructure, skills and knowledge, standards and businesses.
- By 2030, the government will look to establish an Integrated Data and Information Framework, under which a Geospatial Knowledge Infrastructure will be developed.
- A high-resolution topographical survey and mapping as well as a **high-accuracy Digital Elevation Model** for the entire country will be developed by 2035.
- The national database for cooperatives needs to have geospatial database creation with geo-referencing of cooperative societies to make a decision-support model.

Significance of Geospatial Mapping of Cooperative Societies:

- Understanding of the Heterogeneity and Diversity: The cooperative movement is all set for acceleration of membership.
 - The plan of acceleration requires an understanding of the heterogeneity and diversity in spatial distribution.
- Analyzing the Polarisation of Cooperatives: The distribution of cooperative societies reflects polarization of societies in a few States in the west and south while the number of cooperative societies in the east and northern parts is low.
 - Geospatial mapping of these cooperatives will help to analyze the reason for such polarization.
- **District-wise mapping of cooperatives**: District-wise mapping of cooperatives along with database collection is essential to provide a more precise picture of cooperatives at the State and national levels.
 - The advanced geospatial tools and technologies will help in predicting, analyzing, modelling, and visualizing spatially explicit information.
- Understanding the Contrasting Diversities: Some contrasts are seen like nil dairy cooperatives in the North-East States of Manipur, Nagaland, Mizoram, Meghalaya, while Sikkim is better positioned.
- Fisheries cooperatives are also formed around inland water resources in contrast to coastal lines in the western and eastern parts of the country.
- It is essential to map these contrasting diversities and analyze the reasons, which could be the resource base of the State.
- It is essential to undertake research on the major parameters that contribute to the development of such societies and their distribution in specific regions.

Way Forward:

- Thematic GIS mapping along with research and analysis of the distribution of cooperative societies is to be committed towards addressing the developmental issues at the grassroots level.
- The proposed database shall facilitate all stakeholders in policy-making and implementation to strengthen the cooperative movement in the country.

The geospatial mapping of the cooperative ecosystem will generate ease of doing business outcomes and the potential to be utilized to conduct in-depth mapping and analysis which will be of immense help to planners, managers and administrators in quickly storing, retrieving and updating the required information for the management of cooperatives.

Ministry of Cooperation

- Ministry created to realise the vision of 'sahkar se samriddhi' (through cooperation to prosperity).
- It will provide a separate administrative, legal and policy framework for strengthening the cooperative movement in the country.
- It will work to streamline processes for 'ease of doing business' for cooperatives and enable the development of multi-state cooperatives (MSCS),

What is a cooperative?

• Cooperatives are people-centred enterprises owned, controlled and run by and for their members to realise their common economic, social, and cultural needs and aspirations.

Provisions of Indian Constitution related to Cooperatives

The Constitution (97th Amendment) Act, 2011 made following changes in Constitution

- New **Part IXB** regarding the cooperatives working in India added. (Part IXA deals with Municipals)
- In Art. 19(1)(c) the word "cooperatives" was added after "unions and associations". This enables all the citizens to form cooperatives by giving it the status of fundamental right of citizens.
- A new **Article 43B** was added in the Directive Principles of State Policy (Part IV) regarding the "promotion of cooperative societies"

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