



Chapter - 16 Agriculture

Agriculture plays a vital role in India's economy. About 54.6% of the population is engaged in agriculture and allied activities (Census 2011) and it contributed 17.8% to the country's Gross Value Added for the year 2019.20 (at current prices). Steps have been taken to improve soil fertility on a sustainable basis through the soil health card scheme:

- To provide improved access to irrigation and enhanced water efficiency through Pradhan Mantri Krishi Sinchayee Yojana (PMKSY),
- To support organic farming through Paramparagat Krishi Vikas Yojana (PKVY), and to implement schemes to boost the income of farmers.
- Further, to mitigate risk in the agriculture sector, a new scheme, Pradhan Mantri Fasal Bima Yojana (PMFBY) was launched for implementation from Kharif 2016.

Major Initiatives

Kisan Samman Nidhi

- Started: 2018
- Provides income support of ₹6,000 per year to landholding farmer families.
- Eligible recipients: husband, wife, and minor children.
- Beneficiaries identified by states and UT administrations.
- Funds directly transferred to beneficiaries' bank accounts.

Agri Infrastructure Fund

- Mobilises debt financing for postharvest management and community farming projects.
- Provides incentives and financial support for viable projects.

Soil Health Cards

- Introduced in 2014-15 under the Soil Health Management component of NMSA.
- Provides nutrient status of soil for 12 parameters.
- Issued every 3 years to help farmers optimise nutrient usage.
- Aim: Enhance soil health, fertility, and farmers' profits.

Agricultural Mechanization

- Provided 13,88,314 machines and equipment to farmers on subsidy.
- Established custom hiring centres, high-tech hubs, and farm machinery banks.
- SOPs released for drone use in pesticide and nutrient application.
- Financial assistance provided for drones to FMTTIs, ICAR Institutes, KVKs, and SAUs.
- Agriculture graduates establishing CHCs eligible for financial assistance.

Pradhan Mantri Fasal Bima Yojana (PMFBY)

- Implemented since Kharif 2016.
- Uniform maximum premium of 2% for Kharif crops and 1.5% for Rabi crops.

- Maximum premium for annual commercial and horticultural crops up to 5%.
- Government bears balance of actuarial premium, shared equally by central and state governments.
- Aim: Provide fully insured amount to farmers against crop loss due to natural calamities.

Restructured Weather Based Crop Insurance Scheme

- Aim: Mitigate financial loss for insured farmers due to anticipated crop loss from adverse weather conditions.
- Uses weather parameters as proxies for compensating crop losses.

Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

- Objectives:
 - Convergence of investments in irrigation at field level.
 - Expand cultivable area under assured irrigation.
 - Improve on-farm water use efficiency.
 - Promote precision irrigation and water-saving technologies.
 - Encourage sustainable water conservation practices.
- Administered by the Ministry of Water Resources, River Development, and Ganga Rejuvenation.

Commission for Agricultural Costs and Prices (CACP):

- **Establishment:** Set up to evolve a balanced price structure.
- **Mandate:** Advises on Minimum Support Prices (MSP) for 23 crops.
 - Includes cereals, pulses, oilseeds, copra, cotton, raw jute, and sugarcane.
 - **Recommendations:** Submitted annually in Price Policy Reports for kharif crops, rabi crops, sugarcane, raw jute, and copra.
- **Determinants of MSP:**
 - Cost of Production (CoP): Important factor in MSP determination.
 - Other Factors Considered:
 - Demand and supply dynamics.
 - Domestic and international price trends.
 - Inter-crop price parity.
 - Terms of trade between agricultural and non-agricultural sectors.
 - Potential impact on consumers.
 - Rational utilisation of natural resources like land and water.
 - **Approach:** Pricing policy not solely based on cost-plus approach but considers multiple factors.

International Year of Millets:

- The Food and Agriculture Organization (FAO) of the United Nations, had decided that 2023 was to be the International Year of Millets — 2023 (IYM2023)
- Earlier the Government of India had sponsored the proposal for International Year of Millets (IYM) 2023 which was accepted by the United Nations General Assembly.
- The declaration was instrumental for the Government of India to be at the forefront in celebrating the IYM.
 - In view of this, the Department of Agriculture and Farmers Welfare promoted cultivation and consumption of Millets at a larger scale and brought it to the entire globe.
- Recognising the enormous potential of millets, which also aligns with several UN Sustainable Development Goals (SDGs), the Government of India prioritised millets.
- Millets were among the first crops to be domesticated in the country with several evidence of its consumption during the Indus Valley Civilisation.

Strengthening of Primary Co-operative Societies:

Primary Cooperative Societies are the backbone of the rural economy. To make them multi-purpose, multi-dimensional, economically viable and to generate employment at Village level, several steps have been

taken, which include:

- model bye-laws for making PACS multipurpose and economically strengthening of all 63,000 functional PACS through their computerization;
- establishment of new multipurpose PACS/dairy/fisheries cooperative societies in every Panchayat / village of the country;
- PACS to function as Common Service Centres (CSCs) for better access to e-Services; formation of new Farmer Producer Organisations (FPOs) by PACS;
- PACS as Jan Aushadhi Kendra for access to generic medicines at rural level;
- Upgradation of PACS as Pradhan Mantri Kisan Samridhi Kendra (PMKSK);
- Rupay Kisan Credit Card to members of cooperative societies

Muulti-State Cooperative Societies:

- The Central Registrar of Cooperative Societies provides an ecosystem for co-operative societies, with objects not confined to one state, serving the interests of members in more than one state as per Multi State Cooperative Societies Act, 2002.
- With the objective of incorporating the provisions of the 97th Constitutional amendment and to strengthen governance, increase transparency, enhance accountability, ensuring free, fair and timely elections, etc., in Multi-State Cooperative Societies, MSCS (Amendment) Act, 2023 has been enacted.
- To strengthen the Office of Central Registrar of Cooperative Society several steps have been taken including Computerization of Office of Central Registrar, setting up new offices, filling up vacant posts etc., that will help in processing applications and service requests in an online and time bound manner.

Indian Council of Agricultural Research

- The ICAR is an autonomous organisation under the Department of Agricultural Research and Education (DARE).
- Formerly known as Imperial Council of Agricultural Research, it was established on July 16, 1929 as a registered society under the Societies Registration Act, 1860.
- With its headquarters at New Delhi, it is the apex body for coordinating, guiding, and managing research and education in agriculture including horticulture, fisheries and animal sciences.
- The ICAR has played a pioneering role in ushering Green Revolution and subsequent developments in agriculture in India through its research and technology development that has enabled the country to increase the production of foodgrains four times, horticultural crops six times, fish nine times and eggs twenty-seven times than it was in 1951.

Animal Husbandry, Dairying and Fisheries

- Livestock production and agriculture are intrinsically linked, each being dependent on the other, and both crucial for overall food security. Livestock is an important subsector of the agriculture of the Indian economy.
- It forms an important livelihood activity for most of the farmers, supporting agriculture in the form of critical inputs, contributing to the health and nutrition of the household, supplementing incomes, offering employment opportunities, and finally being a dependable 'bank on hooves' in times of need.
- It acts as a supplementary and complementary enterprise.

Milk Production:

- India continues to be the largest producer of milk in the world. Several measures have been initiated by the Government to increase the productivity of livestock, which has resulted in increasing milk production significantly.
- Milk production during 2020-21 and 2021-22 was 209.96 million tonnes and 221.06 million tonnes respectively showing an annual growth of 5.29%. The per capita availability of milk was around 444 grams/day in 2021-22.

Egg Production:

- India ranks third in egg production in the world. Poultry production has taken a quantum leap in the last four decades, emerging from an unscientific farming practice to commercial production system with state-of-the-art technological interventions.
- Egg production has increased from 78.48 billion (2014-15) to 129.60 billion (2021-22). Annual growth rate of egg production was 4.99% during 2014-15.
 - Thereafter, there was a significant improvement in its production with the growth registered as 5.62% in 2021-22. The per capita availability of eggs was 95 eggs per annum in the same period.

Meat Production:

- India ranks fifth in meat production in the world. Meat production increased from 6.7 million tonnes (2014-15) to 9.29 million tonnes (2021-22). Annual growth of meat production during 2021-22 was 5.62%.
- The per capita availability of meat was 6.82 (kg/annum) in 2021-22.

Rashtriya Gokul Mission (RGM):

- **Objective:** Development and conservation of indigenous bovine breeds.
- **Implementation:** Since December 2014, with restructuring from 2021-22 to 2025-26.
- **Activities Supported:**
 - Semen production facilities.
 - Bull production program.
 - Breed multiplication farms.
- **Capital Subsidy:** 50% subsidy for entrepreneurs in breed multiplication farms.
- **Focus Areas:**
 - Extension of artificial insemination coverage.
 - Incentives for AI technicians.
 - Promotion of sex-sorted semen usage.
 - Making reproductive technologies accessible to farmers.

National Programme for Dairy Development:

- The Department of Animal Husbandry and Dairying is implementing the National Programme for Dairy Development (NPDD) across the country since 2014 with an objective of creating/strengthening of infrastructure for production milk, procurement, processing and marketing of milk and milk products by the State Implementing Agency (SIA).
- Now, the scheme has slightly been restructured from 2021-22 to 2025-26. The NPDD scheme aims to enhance quality of milk and milk products and increase share of organised milk procurement.

Dairy Processing and Infrastructure Development Fund:

- Dairy Processing and Infrastructure Development Fund (DIDF) scheme is being implemented with the objective of creation/strengthening of milk processing, Value addition and chilling facilities under it are with a total outlay of Rs 11,184 crore including loan component of Rs 8,004 crore. Under the scheme loan assistance is provided at subsidised rate of interest to end borrowers. The interest subvention is at 2.5% to NABARD/lending institute.

National Livestock Mission:

- The National Livestock Mission (NLM) scheme has been restructured from 2021-22 to 2025-26. The focus of the scheme is on entrepreneurship development and breed improvement in poultry, sheep, goat and piggery including feed fodder development. The scheme is implemented with the following three sub missions:
 - **Sub-Mission on Breed Development of Livestock & Poultry:** The sub-mission proposes to bring sharp focus on entrepreneurship development and breed improvement in poultry, sheep, goat and piggery by providing the incentivisation to the individual, EPOS,

SHGs, Section 8 companies for entrepreneurship development and also to state government for breed improvement infrastructure

- **Sub-Mission on Feed and Fodder Development:** This sub-mission aims towards strengthening the fodder seed chain to improve availability of certified fodder seed required for fodder production and encouraging entrepreneurs for establishment of fodder block/hay, bailing/silage making units through
- **Sub-Mission on Research & Development, Livestock Insurance, Extension and Innovation:** The sub-mission aims to incentivise the institutes, universities organisations carrying out research and development related to sheep, goat, pig and feed and fodder sector, extension activities, livestock insurance and

Indian Fisheries

- **Status:** Second largest fish producing and aquaculture nation after China.
- **Inland Fisheries:** Major contributor to overall fish production.
- **Employment:** Engages over 14.50 million people.
- **Shift:** From marine to inland fisheries, with inland fisheries contributing 70% of fish production.
- **Transition:** Shift from capture to culture-based fisheries for sustained blue economy.

Pradhan Mantri Matsya Sampada Yojana (PMMSY):

- **Total Investment:** ₹20,050 crore over five years (FY 2020-21 to FY 2024-25).
- **Objectives:**
 - Enhance fish production and productivity sustainably.
 - Modernise value chain and post-harvest infrastructure.
 - Double fishers' and fish farmers' incomes.
 - Ensure social, physical, and economic security.
 - Establish a robust fisheries management framework.
- **Initiatives:**
 - Financial assistance for Fish Farmers Producer Organizations (FFPOs) to empower fishers and fish farmers.
- **Fisheries and Aquaculture Infrastructure Development Fund:**
 - To address the gaps in infrastructure requirements for the fisheries sector, the Department of Fisheries created a fund namely Fisheries and Aquaculture Infrastructure Development Fund (FIDF) during 2018-19. Interest subvention is provided up to 3%, per annum for concessional finance.