

Structural Policies in India's Agricultural Sector

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1. Introduction:

Agriculture has historically occupied a central position in India's economic and social structure. At the time of Independence, agriculture contributed nearly 51 percent of India's Gross Domestic Product (GDP) in 1950–51 and employed more than 70 percent of the population. Over the decades, structural transformation of the economy reduced agriculture's share in GDP to around 17–18 percent by 2022–23, while nearly 45 percent of the workforce continues to depend on this sector. This divergence between income contribution and employment share reflects a major structural imbalance within the Indian economy.

At Independence, Indian agriculture was characterized by low productivity, outdated technology, fragmented landholdings, heavy dependence on monsoons, and widespread rural poverty. Addressing these structural weaknesses became a core objective of national development planning. The Government of India adopted multiple policy frameworks to transform the agricultural sector, ranging from land reforms and institutional credit systems in the early decades to technology-led growth during the Green Revolution period, followed by market-oriented and income-support policies in the post-liberalization era.

Structural agricultural policies in India are not limited to production enhancement; they also address input supply, pricing, risk management, infrastructure development, market access, and environmental sustainability. In recent years, agricultural policy has acquired renewed importance due to stagnating farm incomes, climate change impacts, rising input costs, and increased vulnerability of small and marginal farmers. The shift in policy discourse from "food security" to "farmer income security" marks a significant transformation in the objectives of agricultural development.

2. Structure of the Agricultural System in India

India's agricultural system is highly diverse due to variations in climate, soil types, cropping patterns, land tenure systems, and socio-economic conditions. The system is dominated by small and marginal farmers, who account for over 85 percent of total operational holdings, according to the Agricultural Census (2015–16). The average size of landholdings declined from 2.28 hectares in 1970–71 to 1.08 hectares in 2015–16, creating serious constraints on mechanization, productivity enhancement, and economies of scale.

The agricultural sector consists of crop production, livestock, fisheries, and allied activities. Food grains such as rice and wheat dominate production, while commercial crops such as cotton, sugarcane, oilseeds, fruits, and vegetables play a crucial role in income generation and exports. Rain-fed agriculture accounts for nearly 55 percent of the total cultivated area, making the sector highly vulnerable to monsoon variability and climate uncertainty. Institutional support forms the backbone of the agricultural system. Agencies such as the Ministry of Agriculture and Farmers Welfare, the Indian Council of Agricultural Research, state agricultural universities, cooperative institutions, and marketing boards play a vital role in policy formulation,

implementation, and technological dissemination. Despite these institutional mechanisms, structural inefficiencies persist due to uneven access to irrigation, credit, markets, and modern technology.

3. Evolution of Agricultural Policies in India:

3.1 Pre-Green Revolution Phase

During the early years after Independence, agricultural policy focused on land reforms, expansion of irrigation, and community development programmes. The abolition of intermediaries, tenancy reforms, and land ceiling acts aimed to ensure equitable land distribution and protect tenant farmers. However, weak enforcement and political resistance limited their effectiveness.

Public investment in irrigation and rural infrastructure was prioritized under successive Five-Year Plans. Major irrigation projects and cooperative credit institutions were established to support agricultural growth. Despite these efforts, food grain production remained inadequate. In 1950–51, food grain output stood at around 50.8 million tonnes, resulting in dependence on food imports and external assistance during drought years.

3.2 Green Revolution and Structural Transformation:

The Green Revolution of the late 1960s (1966–67) marked a decisive turning point in India's agricultural policy. The adoption of high-yielding variety seeds, chemical fertilizers, pesticides, assured irrigation, and institutional credit led to a sharp increase in food grain production. Food grain output increased from 82 million tonnes in 1965–66 to over 130 million tonnes by the late 1970s.

Government intervention through minimum support prices (MSP), public procurement, input subsidies, and extension services played a central role. Institutions such as the Food Corporation of India strengthened food security by maintaining buffer stocks. By 2023–24, India's total food grain production crossed 330 million tonnes, ensuring national food self-sufficiency.

However, the Green Revolution also produced unintended consequences such as regional concentration of growth, excessive use of chemical inputs, soil degradation, and groundwater depletion, particularly in irrigated states.

3.3 Post-Liberalization Reforms:

The economic reforms initiated in 1991 introduced market-oriented approaches into agricultural policy. Emphasis shifted toward diversification, export promotion, value addition, and private sector participation. The focus expanded beyond cereals to horticulture, livestock, fisheries, and agro-processing.

During this period, agriculture growth averaged around 3–4 percent per annum, but farmer incomes remained volatile due to price instability and rising input costs. Structural reforms improved output in select sub-sectors, yet income disparities and regional imbalances persisted.

4. Government Policies for Agricultural Development

4.1 Pricing and Income Support Policies

The MSP mechanism remains a cornerstone of agricultural policy, offering price assurance for major crops. Public procurement stabilizes markets and supports the Public Distribution System. In 2019, the government introduced Pradhan Mantri Kisan Samman Nidhi (PM-KISAN), providing ₹6,000 per year as direct income support to eligible farmer households. By 2024, over 110 million farmers benefited from the scheme, with cumulative transfers exceeding ₹3 trillion, helping to supplement farm incomes.

4.2 Risk Management and Crop Insurance

Agriculture faces significant production risks due to weather variability. The Pradhan Mantri Fasal Bima Yojana (PMFBY), launched in 2016, aims to provide affordable crop insurance. By 2022, nearly 36 percent of the gross cropped area was covered under crop insurance, although regional disparities in coverage remain significant.

4.3 Credit and Institutional Support

Institutional credit plays a critical role in agricultural development. Agricultural credit flow increased from less than ₹1 trillion in the early 2000s to over ₹20 trillion by 2022–23. The Kisan Credit Card scheme has expanded access to short-term credit, though small and marginal farmers still face procedural and collateral-related constraints.

4.4 Infrastructure and Market Reforms

Post-harvest losses in India are estimated at 8–10 percent of total agricultural output. To address this, the Agriculture Infrastructure Fund, launched in 2020 with a corpus of ₹1 lakh crore, supports investments in storage, cold chains, and logistics. Digital platforms such as e-NAM, operational since 2016, integrated over 1,300 agricultural markets by 2023, improving price transparency and market access.

4.5 Sustainability and Climate-Resilient Agriculture

Environmental sustainability has become a major policy priority. Agriculture accounts for nearly 80 percent of total freshwater withdrawals in India. By 2020, around 17 percent of groundwater blocks were classified as over-exploited. Schemes such as the Soil Health Card programme and micro-irrigation initiatives promote efficient resource use and long-term productivity.

5. Impact of Structural Agricultural Policies

Structural policies significantly enhanced agricultural production and food security. India is now the world's largest producer of milk and among the top producers of rice, wheat, pulses, fruits, and vegetables. Institutional mechanisms reduced famine risk and stabilized food availability.

However, growth benefits remain uneven. Productivity growth is higher in irrigated regions, while rain-fed areas lag behind. Income inequality among farmers has widened, and environmental degradation poses long-term sustainability risks.

6. Challenges in India's Agricultural Policy Framework

Fragmented landholdings, market inefficiencies, inadequate infrastructure, and climate vulnerability continue to constrain agricultural performance. Policy implementation gaps, coordination issues between central and state governments, and limited extension outreach reduce policy effectiveness.

7. Future Policy Directions

Future agricultural policy must prioritize income enhancement, diversification, sustainability, and climate resilience. Strengthening farmer producer organizations, expanding digital agriculture, promoting water-efficient technologies, and encouraging agri-based industries are essential for inclusive growth.

8. Conclusion:

Structural agricultural policies transformed India from chronic food scarcity to self-sufficiency. While government interventions strengthened resilience and food security, emerging challenges related to sustainability, equity, and climate change require renewed policy focus. A

balanced approach integrating economic efficiency, environmental stewardship, and social justice will shape the future of Indian agriculture.

References:

1. Ministry of Agriculture and Farmers Welfare, Government of India, Annual Reports.
2. Indian Council of Agricultural Research (ICAR), Agricultural Research Publications.
3. Economic Survey of India, Government of India, latest edition.
4. National Agricultural Policy, Government of India.
5. Food and Agriculture Organization (FAO), India Country Reports.
6. Planning Commission and NITI Aayog Reports on Agricultural Development.
7. World Bank, Agriculture and Rural Development in India.
8. Reserve Bank of India, Reports on Agricultural Credit.