

Doubling Farmer's Income: Road Map and Changes

Chintawar Shraddha¹, K. Shireesha²

¹ Ph.D. Scholar, Department of Agricultural Extension, IGKV, Raipur, Chhattisgarh

² Assistant Professor, Department of Agricultural Extension, Agricultural college Aswaraopeta, PJTAU

Corresponding Author: shraddhachintawar909@gmail.com

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ABSTRACT

India's target to double farmers' income by the mid-2020s marks a pivotal evolution in rural development policy, shifting from output alone to a comprehensive framework for rural prosperity. Despite an array of interventions, persistent structural bottlenecks—subpar productivity, price volatility, costly inputs, market inefficiencies, and climate risk—continue to suppress farmer incomes. Currently, average annual agricultural household income remains below ₹11,000/month, with stark interstate and sub-sectoral disparities. Government efforts have catalyzed some gains: direct transfers, crop insurance expansion, e-market integration, and infrastructure upgrades. Yet, challenges including implementation delays, exclusion of marginalized groups, limited financial literacy, and slow adoption of climate-resilient technologies still impede broad-based impact. Achieving this ambitious goal requires coordinated reforms: regionally tailored diversification, robust producer organization networks, multi-stakeholder engagement, digital empowerment, and gender-sensitive policies. Bridging remaining gaps can unlock transformative, sustainable, and resilient growth for Indian agriculture.

Keywords: Doubling Farm Income, Agriculture Policy, Rural Transformation, Market Reforms, Climate Resilience, Smallholders, India

Introduction

Agriculture employs more than 47% of India's workforce and is vital for food, fiber, and livelihoods. Amid urbanization and industrialization, rural India remains largely agrarian, making welfare-oriented agricultural policy not just vital for economic growth but essential for social stability. While the Green Revolution solved critical food shortages, it created newer challenges: regional monocultures, soil and water depletion, high chemical input use, and stagnating incomes. Nearly 85% of Indian farm households are small and marginal, often dependent on uncertain weather and market conditions. The government's 2016 commitment to double real income of farmers by 2022-23 aimed to reverse this narrative—prioritizing profitability, sustainability, and equity. However, multiple complexities—land fragmentation, limited mechanization, shrinking cultivable land, mounting input costs, ineffective procurement, and weak post-harvest management—have meant most Indian farmers remain locked in subsistence.

The Nature of The Income Crisis in Indian Agriculture

* **Stagnant Net Incomes:** The National Sample Survey (2019) shows average monthly income from cultivation is often less than ₹4,000/household, with livestock, government jobs, and non-farm labor making up the rest. Growth in income has lagged urban wages, deepening rural-urban disparity.

* **Low Productivity:** Agricultural yield for cereals, pulses, and oilseeds is below global averages—partly due to rainfed dependency (about 60% of net sown area), outdated practices, and poor input access.

* **High Input Costs:** Since 2010, fertilizer, pesticide and wage costs have risen 8-12% annually. Most smallholders have limited bargaining power with input dealers and often fall into debt cycles.

* **Market Failures:** The typical supply chain involves 3–5 intermediaries, with farmers realizing only 30-40%

of final consumer value. Regulatory hurdles in mandis, limited cold storage (<15% of needed capacity), and poor local infrastructure prolong the problem.

* **Post-Harvest Losses:** Nearly ₹92,000 crore in estimated annual post-harvest losses, primarily due to inadequate cold chains, poor storage, and inefficient logistics.

* **Vulnerability to Risks:** With only 23% gross cropped area insured, millions of farmers face shocks from droughts, floods, pests, and price crashes.

* **Marginalization:** Tenant farmers, women (who make up 75% of agricultural labor), and tribal communities often lack land titles, preventing access to schemes and formal credit.

Impacts on Rural Livelihoods and Agriculture

1. Poverty and Distress: Persistent low-income results in indebtedness, distress sales, and in severe cases, farmer suicides over 10,000 reported farmer suicides annually, according to NCRB data.

2. Inequity Across States: States like Punjab have per capita farm income over ₹2 lakh/year; in contrast, Bihar's average is scarcely ₹40,000/year. This gap perpetuates regional underdevelopment and migration.

3. Rural-Urban Migration: Poor farm prospects have fueled youth migration to cities, resulting in labor shortages and eroding community stability.

4. Technology Backwardness: With limited funds and high risk, investment in farm mechanization, improved seeds, precision agriculture, and irrigation remains low among smallholders.

5. Gender and Social Disparity: Only 14% of operational land holdings are in the name of women, severely restricting their access to programs and credit.

6. Environmental Degradation: Intensive monocultures have led to declining water tables, declining soil health, and increased greenhouse emissions from agriculture.

Road Map: Strategies and Government Initiatives

SEVEN-POINT STRATEGY: Following the recommendations of the Doubling Farmers' Income Committee, government and stakeholder efforts align with these pillars:

1. Boosting Productivity and Resource Use Efficiency:

- * Widespread seed replacement and adoption of high-yield varieties. Expansion of "precision farming" and System of Rice Intensification (SRI) pilots.
- * Soil Health Cards: Over 220 million cards issued, guiding input use and boosting yields.
- * Micro-irrigation: Adoption of drip and sprinkler irrigation covers over 13.7 million hectares, reducing water loss and raising profit margins.

2. Livestock, Fisheries, and Allied Production:

- * Rashtriya Gokul Mission, National Livestock Mission, and Blue Revolution support improved breeds, productivity, and cold-chain development. Contribution of livestock sector to total farm GDP has grown to 28% by 2023.

3. Cropping Intensity and Diversification:

- * Support for horticulture, pulses, oilseeds, and traditional/millet crops via e-NAM and National Food Security Mission. Northeast and tribal states see tailored interventions for niche crops and indigenous livelihoods.
- * Organic Clusters (Paramparagat Krishi Vikas Yojana): Over 2 million ha under organic certification.

4. Market Reform and Price Realization:

- * Minimum Support Price (MSP): Raised to 1.5x cost of production for 23 major crops, with Procurement Centers for perishable produce like tomato, onion, potato (Operation Greens).
- * e-NAM (National Agriculture Market): Integrates over 1,250 markets in 22 states, with over 1.7 crore farmers and 2 lakh traders registered as of 2025.
- * PM Formalization of Micro Food Processing Enterprises (PMFME): Providing support to value-addition, branding, and processing.

5. Direct Support and Risk Reduction:

- * PM KISAN: Over ₹2.3 lakh crore transferred directly to 11 crore farm families since 2019.
- * PM Fasal Bima Yojana: 67 million hectares insured in 2022, with claims payout exceeding ₹1.3 lakh crore since 2016.
- * Kisan Credit Card: Now available to dairy, fisheries, and allied sector farmers.

6. Allied and Non-Farm Activities:

- * Promotion of Farmer Producer Organizations (FPOs): Over 10,000 new FPOs registered, offering aggregation, input purchase, collective marketing, and value addition. Special incentives for export clusters, SHGs, and women's collectives.
- * Promotion of agri-tourism, rural crafts, and post-harvest value chains in select states.

7. Digital and Policy Reforms:

- * JAM trinity (Jan Dhan, Aadhaar, Mobile) for targeted transfer.
- * Pilots for blockchain traceability in produce, e-marketplace apps, ChatGPT-style agri-advisory bots via Krishi Vigyan Kendras.

Examples and Case Studies

- * Maharashtra's "Magel Tyala Shet Tale" (Farm Ponds On Demand): Helped double cropping area and stabilized incomes for over 360,000 smallholders in drought-prone regions.
- * Kerala's Kudumbashree model: Empowered women's SHGs in sustainable agriculture, value-added processing, and collective marketing.
- * Gujarat's approach to groundnut value chains: Supported FPOs in implementing buyer-seller aggregation through eNAM, raising net realization by 15-25%.
- * Pradhan Mantri Kisan Sampark Abhiyan: Door-to-door awareness campaign increased enrollment under crop insurance by 19% in UP and Bihar in 2023.

Current Efforts and Gaps

Efforts

- * Record sector budget allocations, expanding to ₹1.5 lakh crore (2024–25).
- * Nationwide drive for 100% saturation in KCC credit cards and PM-KISAN benefits.
- * Launch of Agri Stack-integrated digital database for land records, crop advisories, weather, and precision inputs.

Gaps

- * **Limited Financial Literacy:** Only one-third of farmers are aware of scheme benefits or digital banking options constraining effective inclusion, especially among women and Adivasis.
- * **Implementation Lags:** States like Jharkhand, Assam, and Chhattisgarh lag in procurement, scheme outreach, and market reforms.
- * **Input Subsidy Leakages & Pilferage:** Data mismatches, lack of updated records, and local bottlenecks reduce subsidy efficiency.
- * **Low Insurance Penetration:** Only 30% scheme uptake in rainfed and eastern states.
- * **Supply Chain Infrastructure Deficits:** Only 35% rural mandis have grading, cold storage, or e-trading facilities.
- * **Climate Vulnerability:** Over 55% of net cultivated area in India is drought/flood prone according to Ministry of Agriculture (2024).

Strategies To Bridge the Income Gap

- 1. Customized, Agro-Ecological Zoning:** District-level cropping plans based on soil, water, market access, and risk exposure. Expand climate-resilient varieties in vulnerable districts.
- 2. Expanding Digital Agri-Services:** Use of AI/ML for personalized crop advisories, pest alerts, and smart irrigation through affordable mobile platforms in regional languages.
- 3. Universal Insurance and Risk Transfer:** Push for 100% coverage under PMFBY, adding weather-indexed and livestock insurance; reform claims process for transparency.
- 4. FPO and SHG Ecosystem:** Scale community-based value chains through fiscal incentives, professional management, and linkages with e-commerce and aggregators.
- 5. Gender and Inclusion Lens:** Mandate at least 30% women's participation in FPOs, digital skilling for rural women, and special credit windows for landless, tribals, and youth.
- 6. Expanding Agri-Exports:** Invest in GI-based branding, sanitary/phytosanitary compliance, and air-cargo cold chains for global market access.
- 7. Investing in Climate-Smart Agriculture:** Promote water harvesting, solar-powered irrigation, stress-tolerant crops, and integrated watershed management to mitigate climate shocks.
- 8. Education and Capacity Building:** Introduce "Farming as Business" in rural curriculum, expand extension through Krishi Vigyan Kendras, and deploy farmer field schools focused on new practices.

9. Monitoring, Social Audit, and Data Transparency: Use geotagging, dashboard monitoring, and participatory audits to ensure real-time corrective action at local level.

Conclusion

Doubling farmers' income is a generational opportunity to reposition Indian agriculture as a driver of broad-based prosperity, resilience, and equity. Achieving it requires more than policy intent; it demands effective implementation, robust monitoring, and an unwavering focus on equity and inclusion. Integrating digital and climate-smart tools, empowering women and marginalized farmers, and revitalizing cooperative structures are essential. A collaborative "whole-of-government and society" approach engaging state, market, civil society, and technology providers will unlock the full potential for millions of Indian farmers. This is not just a goal, but an imperative for the future.

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