



# Enhancing Profitability in Indian Agriculture: Strategies and Government Initiatives

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## ABSTRACT

Enhancing profitability in agriculture is vital to ensure food security, alleviate poverty, and promote rural development. This article examines the various approaches for increasing profitability in Indian agriculture such as improving agricultural productivity, enhancing market access, adopting sustainable agricultural practices, risk mitigation and insurance, access to credit and financial inclusion as well as diversification and value addition. The article also highlights the role of different flagship schemes of the Government like PM-KISAN, PMKSY, NMSA, PKVY, PMFBY etc aimed at promoting agriculture and improving the livelihoods of farmers in India.

## INTRODUCTION

India's agricultural sector is not just the backbone of its economy but also a lifeline for millions of people dependent on it for their livelihoods. Despite its crucial role, Indian agriculture faces numerous challenges, including low productivity, fragmented land holdings, unpredictable weather conditions, and market volatility. Enhancing profitability in agriculture is paramount to ensure food security, alleviate poverty, and promote rural development. This article examines various strategies aimed at increasing profitability in Indian agriculture, with a particular focus on government schemes and innovative approaches.

### 1. Improving Agricultural Productivity:

Even though, India has shown remarkable progress in recent pasts and has attained self-sufficiency in food staples, the productivity of Indian farms for most of the crops is very low compared to farms in Brazil, the United States, France and other nations. For example, the productivity of rice farms in India was less than half the china's productivity of rice farms. Other food staples productivity in India is similarly low, suggesting a major opportunity for growth and future agricultural prosperity potential in India (Kainth *et al.*, 2013). Some of the measures for improving agricultural productivity of Indian agriculture are as follows:

- Adoption of modern farming techniques: Encouraging farmers to embrace modern practices such as precision farming, drip irrigation, and use of high-yield seeds can significantly enhance productivity.
- Access to quality inputs: Ensuring availability of quality seeds, fertilizers, pesticides, and machinery at affordable prices can boost yields and reduce production costs.

- Training and extension services: Providing farmers with training and extension services on best agricultural practices can empower them to make informed decisions and optimize resource utilization.

2. **Enhancing Market Access:** Many rural producers often face serious difficulties in accessing markets to sell their goods in the marketplace. They are constrained by their remote location, high transportation costs, limited knowledge, and the lack of business skills and an organization that could give them the bargaining power they require to interact on equal terms with other market intermediaries. Reliable market access boosts productivity, increases incomes and strengthens food security. It can contribute to reducing poverty and hunger for producing families and their communities (www.ifad.org). Some of the important measures for improving market access to reduce market risks and unequal market power are as follows:

- Strengthening infrastructure: Developing robust infrastructure including roads, cold storage facilities, and market yards can reduce post-harvest losses and enable farmers to access distant markets.
- Promoting Farmer Producer Organizations (FPOs): FPOs play a vital role in aggregating produce, negotiating better prices, and accessing markets directly, thereby increasing farmers' bargaining power and ensuring benefits of economies of scale.
- Leveraging technology: Embracing e-commerce platforms and digital marketplaces can connect farmers directly with buyers, eliminating intermediaries and ensuring fair prices for their produce.

### 3. Sustainable Agricultural Practices:

Agricultural growth can be sustained by promoting conservation and sustainable use of scarce natural resources like soil and water through appropriate location specific measures. Indian agriculture remains predominantly rainfed covering about 60% of the country's net sown area and accounts for 40% of the total food production. Thus, conservation of natural resources in conjunction with development of rainfed agriculture holds the key to meet burgeoning demands for food grain in the country. ([nmsa.dac.gov.in](http://nmsa.dac.gov.in)). Few of the important sustainable agricultural practices include:

- Conservation agriculture: Encouraging practices such as crop rotation, minimum tillage and residue management can improve soil health, water retention, and long-term sustainability while reducing input costs.
- Organic farming: Supporting organic farming practices not only meets the growing demand for chemical-free produce but also commands premium prices in domestic and international markets.
- Agro-ecology and natural farming: Promoting agro-ecological and natural farming approaches that emphasize natural processes, biodiversity, and traditional knowledge can enhance resilience to climate change and reduce dependence on external inputs.

**4. Risk Mitigation and Insurance:** Farmers' face several technological, informational, psychological, sociocultural, financial and institutional barriers to the adoption of risk management strategies (BIRTHAL, 2022). Some of the important steps in this regard are:

- Crop insurance schemes: Government-backed crop insurance schemes such as Pradhan Mantri Fasal Bima Yojana (PMFBY) provide financial protection to farmers against crop failure due to natural calamities, pests, and diseases.
  - Weather forecasting and early warning systems: Timely dissemination of weather forecasts and early warning systems can help farmers make informed decisions regarding cropping patterns, input usage, and risk management strategies.
- 5. Access to Credit and Financial Inclusion:** It is widely recognized that there is a positive relationship between agricultural credit and agricultural growth.
- Institutional credit: Ensuring easy access to affordable credit through initiatives like Kisan Credit Card (KCC) scheme enables farmers to invest in inputs, technology, and infrastructure advancements. For a farmer, access to affordable institutional credit becomes crucial to start and sustain a good crop cycle based on quality inputs such as seeds, fertilisers, machinery and equipment, and sufficient supply of water and power. In an indirect manner, credit facilitates other important agricultural functions such as marketing, warehousing, storage and transportation, all of which are crucial to productivity. Agricultural credit plays an important role in providing essentials during adversity. To be able to absorb the shock of crop failure due to reasons such as drought and pest infestation or loss incurred due to price crash, the farmers must be financially equipped (D'SOUZA, 2020).
  - Microfinance and self-help groups (SHGs): Promoting microfinance institutions and SHGs empowers smallholder farmers, especially women, by providing them with

financial services and entrepreneurial opportunities.

#### 6. Diversification and Value Addition:

Although large number of farmers still depends on traditional food crops for their livelihood, however fifty percent of the agricultural GDP comes from horticulture and live stocks products. So, this is high time to have policy support to diversify the agriculture from traditional low-valued crops to high valued commodities. For the purpose of achieving higher income and employment growth in agriculture, diversification of farm activities is emerging as important instrument (Deogharia, 2018).

- Crop diversification: Within the agriculture sector, diversification is a shift from the traditional cropping pattern of less remunerative crops to high value added diversified agriculture. In other words diversification involves the changes in the production portfolio from the low-value to high value commodities like vegetables, milk, meat, eggs and fish based on the market demand that creates the new horizon for the rural income source (IFPRI, 2007). From a narrow point of view, agricultural diversification implies increasing the variety of agricultural commodities produced at the farm level (Hayami, 1991). But a broader view suggests that agricultural diversification is a process of a gradual movement out of subsistence food crops (particularly staple foods) toward diversified market-oriented cash crops that have a larger potential for returns to land. Encouraging farmers to diversify into high-value crops, horticulture, and livestock farming can mitigate risks associated with mono-cropping and enhance overall profitability.
- Food processing and value addition: Investing in food processing infrastructure

and value addition facilities adds value to agricultural produce, reduces post-harvest losses, and creates employment opportunities in rural areas.

#### Government Schemes in Agriculture

Some of the key government schemes aimed at promoting agriculture and improving the livelihoods of farmers in India are as follows:

##### 1. Pradhan Mantri Kisan Samman Nidhi

**(PM-KISAN):** Launched in 2019, this scheme provides direct income support of Rs. 6,000 per year to small and marginal farmers in three equal installments directly into the bank accounts of eligible farmers.

##### 2. Pradhan Mantri Krishi Sinchayee

**Yojana (PMKSY):** This scheme aims to expand the area under irrigation, improve water use efficiency through various interventions such as micro-irrigation, watershed development, and rainwater harvesting.

##### 3. Rashtriya Krishi Vikas Yojana

**(RKVY):** RKVY is a centrally sponsored scheme that provides financial assistance to states for various agricultural development activities such as infrastructure development, capacity building, research and extension services, promoting value addition and so on.

##### 4. National Mission for Sustainable

**Agriculture (NMSA):** Focuses on promoting climate-resilient farming practices, soil health management, and water conservation measures.

##### 5. Paramparagat Krishi Vikas Yojana

**(PKVY):** PKVY promotes organic farming in the country by providing financial assistance and technical guidance to farmers to adopt organic farming practices and certification.

**6. Pradhan Mantri Fasal Bima Yojana (PMFBY):** Launched in 2016, PMFBY aims to provide insurance coverage and financial support at subsidized premium rates to farmers in case of crop failure due to natural calamities, pests, or diseases. It replaced the earlier National Agricultural Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS).

**7. National Agriculture Market (eNAM):** A pan-India electronic trading platform that enables farmers to sell their produce online, ensuring transparency, competitive pricing, and better market access.

**8. Kisan Credit Card (KCC) Scheme:** Provides farmers with timely and affordable credit for agricultural and allied activities through a revolving credit facility.

**9. Soil Health Card Scheme:** Launched in 2015, this scheme aims to provide soil health cards to farmers which contain information on the nutrient status of their soil and recommendations for appropriate fertilizers, thereby improving soil fertility and crop productivity.

**10. National Food Security Mission (NFSM):** NFSM aims to increase the production of rice, wheat, pulses, and coarse cereals to ensure food security and stabilize prices. It promotes the adoption of improved technologies and practices to enhance productivity.

**11. National Horticulture Mission (NHM):** NHM aims to promote holistic growth of the horticulture sector, including fruits, vegetables, flowers, spices, and aromatic plants, through various interventions such as promotion of high-yielding varieties, post-harvest management, and market linkages.

**12. Interest Subvention Scheme for Agriculture Loans:** Under this scheme, farmers are provided interest subvention (subsidy) on short-term crop loans to encourage timely repayment and reduce the burden of interest on farmers.

## CONCLUSION

Enhancing profitability in Indian agriculture requires a multi-pronged approach encompassing technological interventions, policy reforms, and institutional support. Government schemes play a crucial role in providing financial assistance, infrastructure development, and risk mitigation measures to farmers. By implementing a holistic framework that addresses the diverse needs of farmers, India can unlock the full potential of its agriculture sector and ensure inclusive growth and prosperity in rural areas.

## REFERENCES

- Birthal, P.S. (2022). Climate Change and Risk Management in Indian Agriculture. NABARD Research and Policy Series No. 4/2022. ISBN 978-93-5635-931-4, p:1-41.
- D'Souza, R (2020). Improving Access to Agricultural Credit: New Perspectives. Observer Research Foundation (ORF) Occasional paper# 230, ISBN: 978-93-89622-33-1, p:1-42.
- Deogharia, P. C. (2018). Diversification of Agriculture: A Review. Journal of Economic & Social Development, 14(1), p: 46-59.
- Hayami, Y., (1991). Condition of Agricultural Diversification: A Historical Perspective, in Agricultural Diversification, Report of a study meeting, 17-27, Tokyo, Japan: Asian Productivity Association.

<https://nmsa.dac.gov.in>

<https://www.ifad.org/en/market-access>

International Food Policy Research Institute., (IFPRI), (2007), Agricultural Diversification towards High Value Commodities A Study in Food Surplus States in India with Focus on Andhra Pradesh and Punjab, International Food

Policy Research Institute (IFPRI) New Delhi.

Kainth, G.S., Bawa, R.S., Kaur, D., Irengbam, D. Singh, N. (2013). Productivity of Indian Agriculture: Growth and Determinates. Working Paper No. 2013/04, Guru Arjan Dev Institute of Development Studies, Amritsar, p: 1-79.