International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

Agricultural Development and Agrarian Distress in Madhya Pradesh During Recent Times

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Abstract: ***Madhya Pradesh (MP) is a crucial agricultural state in India, being the second largest by area and sixth by population. Agriculture contributes significantly to MP's economy, making up 47% of its Gross State Domestic Product (GSDP) in 2021 - 22. Foodgrain production has more than doubled in a decade due to improvements in irrigation, zero - interest loans, high - quality seeds, and better road networks. Various schemes, both central and state - run, have bolstered this growth. The state has also seen substantial yield increases in crops like rice, wheat, maize, and cotton, attributed to strategic investments in irrigation, market infrastructure, and technological adoption. Despite these advancements, MP's agriculture faces challenges such as market price crashes, inadequate cold storage facilities, erratic rainfall, and droughts. The state has only a few government - run cold storages, making it hard for small farmers to store their produce during market lows. Other issues include improper implementation of crop insurance schemes and delays in compensation for crop losses. While the state has made strides in agricultural productivity, efforts are needed to address these challenges and ensure sustainable growth. Product Linked Incentive Scheme, Guaranteed MSP, Proactive administration and proper implementation of crop insurance schemes are some suggestions.***

Keywords: Madhya Pradesh, Marginal Farmers, Agrarian distress, Cold storage facilities, Market price crashes, Compensation delays, Product Linked Incentive Scheme

1. Introduction

MP, being the second largest state in terms of geographical area and the sixth most populous, plays a significant role in India's agricultural landscape. The state's agriculture sector contributes a substantial portion to its Gross State Domestic Product (GSDP) and is vital for food security and the rural economy. The farming sector in Madhya Pradesh appears promising by the numbers.

Foodgrain production in the state (including rice, wheat, coarse cereals, and pulses) more than doubled from 149 lakh tonnes in 2011 - 12 to 349 lakh tonnes in 2021 - 22, with a compound annual growth rate (CAGR) of 9.12 percent.

Agriculture is crucial to the state's economy, contributing 47 percent in 2021 - 22 and being the only sector to record positive growth (5.2 percent). With 72 percent of the population living in rural areas, nearly three out of four people are involved in farming in some way.

Agricultural experts credit the increase in food crop production to improved irrigation, zero - interest loans for farmers, high - quality seeds, and a well - developed road network across the state.

According to Suthar (2022), Initially, the emphasis was on rural development, but over time, the focus shifted to agricultural development, particularly farming and production. It wasn't until the early 21st century that rural development policies began to regain attention.

Madhya Pradesh is running many centrally sponsored schemes as well as State - run Schemes for agricultural development. Centrally sponsored Schemes such as Food and nutrition security, National Mission for sustainable Agriculture, National Mission on Edible oil - oilseeds, National Mission on Agriculture Extension and Technology, Rashtriya Krishi Vikas Yojana, PM - Krishi Sinchai Yojana, Paramparagat Krishi Vikas Yojana, National e - governance Plan, Soil Health Card Scheme, PM - Fasal Beema Yojana, Sub - mission on Agroforestry under NMSA etc and State - run schemes such as M. P. Crop Diversification Scheme, Annapoorna Scheme, Surajdhara Scheme, Mukhyamantri Kisan Kalyan Yojana, Bhavantar Bhugtan Yojana have helped farmers.

Agrarian Scenario in Madhya Pradesh: Inter - State Comparison

MP's agricultural sector has shown considerable improvement in recent years, particularly in the yield of major crops such as rice, wheat, maize, and cotton. Between 2009 and 2014, the state witnessed significant increases in crop yields, surpassing national averages. For instance, rice yield increased by 93%, while wheat, maize, and cotton yields grew by 29.7%, 42.5%, and 117.8%, respectively. This growth is attributed to the state's strategic focus on agriculture as a means to enhance food security and contribute to the GSDP.

In addition to investing in irrigation by providing new tubewell power connections and constructing or repairing canals, Chouhan's government emphasized developing infrastructure for marketing agricultural produce. They established government procurement centers beyond the primary APMC (Agricultural Produce Market Committee) yards, placing them in sub - mandis, societies, and warehouses closer to villages.

Determinants of Agricultural Productivity

The study highlights three main determinants of agricultural productivity: agrarian structure, technological change, and price policy. MP's government has taken several initiatives to address these determinants over the past decade:

1) **Public Investment**: Despite facing rainfall deficiency and other natural challenges, the state has invested in improving irrigation infrastructure, adopting new technologies, and implementing institutional reforms. These efforts have helped improve agricultural productivity and mitigate the impact of adverse natural conditions.

2) **Technology Adoption**: The state has promoted the use of high - yield crop varieties, fertilizers, during challenging periods, such as severe droughts between 2006 and 2010 and modern farming techniques. These measures have contributed to significant improvements in crop yields and overall agricultural productivity.
3) **Institutional Reforms**: Reforms aimed at improving access to credit, market infrastructure, and extension services have been implemented. The government has also focused on making its schemes more transparent and reducing discretionary powers through online applications.
4) **Incentives for Farmers**: Various incentives have been provided to farmers to encourage the adoption of modern agricultural practices. These include subsidies for irrigation equipment, high - yield seeds, and fertilizers.

Indian agriculture faces numerous challenges, including the adverse effects of climate change, reduced public investment in essential areas such as research, extension services, and irrigation, and declining private sector interest due to the reintroduction of various controls. These controls impact input pricing (fertilizers and seeds), the release of biotech crops, and export and stocking limits.

In spite of these challenges, Madhya Pradesh (MP) has become a key player in Indian agriculture. It is now the second - largest wheat producer in the country, following Uttar Pradesh, and a major supplier to government procurement agencies, second only to Punjab. MP is also the leading producer of several other crops, including soybean, chickpea (chana), tomato, garlic, ginger, coriander (dhaniya), and fenugreek (methi). Furthermore, the state ranks second in the production of onion (after Maharashtra), mustard (after Rajasthan), and maize (after Karnataka).

The state is also pushing for organic farming. Madhya Pradesh has the largest area under organic farming in India, and initiatives like the Paramparagat Krishi Vikas Yojana aim to support this transition. This shift could help mitigate long - term problems, though it might initially lead to reduced production and financial losses for farmers.

Distress in Backyard:
According to the 2022 - 23 Economic Survey of Madhya Pradesh, procurement of wheat dropped to 46.03 MT in 2022 - 23 from 128.15 in 2021 - 22.

In April 2023, unseasonal rains affected rabi crops when they were ready to harvest and destroyed almost 3/4th of crops in some cases in **Sehore**. The revenue losses were significant not only in Madhya Pradesh but other states as well with both state and central governments announcing compensation for losses. However, farmers reported that they haven't received previous compensations and since M. P. government promised Rs 32, 000/hectare of the damaged crop to be paid after surveys are done, delay in surveys automatically meant delay in payment of compensations which forced farmers to borrow money from moneylenders at exorbitant prices. In Sehore, about 356, 000 hectares are cultivated during the Rabi season. Rabi crops mainly include wheat and chickpea (gram).
The reasons of agrarian distress can be attributed to:

Distress sale:
Along with increase in production, cost of production has increased more than farmer's income. The agriculture sector in Madhya Pradesh, where 70% of the population relies on farming, is severely affected by the market price crash of various crops. These crashes are often caused by bumper production and a sudden influx of crops in mandis. Between 2016 - 2018, tomato farmers in the state experienced significant losses due to overproduction, with prices plummeting to ₹1 - ₹2 per kg, leading many to discard their crops. Garlic farmers have faced similar issues for years, with some setting their produce on fire when prices dropped below ₹2 per kg. Cold storage facilities could mitigate this problem by allowing farmers to store their produce when market prices fall. However, Madhya Pradesh lacks sufficient agricultural infrastructure, including cold storages.

Lack of cold storage:
The state has 250 cold storages, but only five are government - run, and of these, three are for dairy products, one for potatoes, and just one for other crops. Government cold storages are more affordable, charging 40 - 50% less than private ones, making them crucial for small and marginal farmers, who comprise 48% and 28% of the farming population, respectively. For those landless farmers who cannot afford private facilities, government - run cold storages are crucial in the absence of which, farmers are left with no choice but to sell their crops at loss. This is applicable to even larger farmers. Despite government efforts to improve agricultural infrastructure through schemes and the Public - Private Partnership (PPP) model, the reliance on market forces remains high. Farmers continue to depend on measures like Minimum Support Prices (MSP) and Market Intervention Schemes (MIS) to sustain their livelihoods.

Government - run cold storage facilities charge 40 - 50 percent less than private cold storage, making them more reasonable and desirable for farmers, especially small and marginal farmers. According to the MP government, farmers owning up to one hectare of land are considered marginal farmers, while those with one to two hectares are classified as small farmers. State government data indicates that 48 percent of MP's farming population consists of marginal farmers, and 28 percent are small farmers. The lack of government - run cold storage facilities significantly impacts these small and marginal farmers.

Drought and erratic rainfall:
According to Sharma et. al (2021) "Districts in the state face recurrent droughts, limited irrigation, and rainfall variability increases vulnerability to drought risks."

In 2016, serious drought resulted in distress for farmers in sehore, some even committing suicide due to crop failure and with tube wells with depth of 125 feet drying up as well, farmers wanted compensation for the loss however they didn't receive it.

Damaged crops and meagre compensation; improper implementation of PMFBY:
In 2023, farmers all over M. P. suffered losses due to unseasonal rainfall, those at the receiving end reported delay in estimation of losses and underestimation of loss by

patwaris, which resulted in delay in compensation and even after delay the compensation received wasn't enough to recover losses or to cover production cost for next season. PM Fasal Beema Yojana was unevenly implemented in different areas and lack of uniformity led to small number of farmers actually benefitting from the scheme in a given cropping season.

Challenges

M. P. faces several natural challenges, including sporadic rainfall, less irrigated area, and frequent droughts. The state's geographical diversity, with varying soil types and rainfall distribution across its 55 districts, presents both opportunities and challenges for agricultural productivity. The state is divided into 11 agro - climatic zones and five crop zones to better manage these variations. Despite improvements, agriculture in MP remains vulnerable to rainfall fluctuations, especially in rain - fed areas.

Half of Madhya Pradesh's land is cultivated, and the state has over 98.44 lakh farmers, with 76 percent being small and marginal. Despite growth, rising input costs, stagnating incomes, and lack of market security present challenges. Storage shortages causing crop spoilage are also a common issue.

Changes in crop patterns have increased production, but farmers still struggle. Small land holdings, high input costs, and impractical cultivation costs are significant concerns. Farmer leaders emphasize that farmers are often reduced to election issues without real solutions.

Irrigation projects, while beneficial, have mixed impacts. The Narmada River's water projects have increased irrigation capacity but also led to issues like soil degradation and groundwater depletion. For example, the cultivation of moong as a third crop in Narmadapuram has risen, but this has also led to increased stubble burning and chemical use.

Despite efforts to improve irrigation, only one - fourth of Madhya Pradesh's fields receive adequate water, with tribal areas still dependent on rainwater. Concerns have been raised that Madhya Pradesh might face similar ecological and economic issues as Punjab did after the Green Revolution due to over - reliance on chemical fertilisers and high - yield crops.

Some other challenges include;

- Duplicity of Schemes**:** The existence of multiple schemes with similar objectives but different benefits often leads to confusion and conflict among farmers and government officials. Harmonizing these schemes could improve their effectiveness and reduce conflicts.
- Irrigation Issues**:** The lining work of canals is still in progress, and breaking of canals by villagers to get more water remains a challenge. Ensuring proper irrigation management and addressing these issues will require political will and community engagement.
- Protection of Tenant Farmers**:** Protecting the interests of tenant farmers is crucial. Encouraging landowners and tenant farmers to sign formal contracts can help safeguard their rights and promote more stable agricultural practices.
- Outsourcing of PMFBY**:** The outsourcing of the Pradhan Mantri Fasal Bima Yojana (PMFBY) to private companies has been met with skepticism among farmers due to the perceived lack of transparency in the methodologies used by these companies.

Way forward

MP's experience highlights the importance of comprehensive strategies that encompass technological, institutional, and policy measures to enhance agricultural productivity.

Production Linked Incentive Scheme (PLI) can be implemented to reduce the agrarian distress as it will not only provide cushion to farmers' loss but also encourage diversity in cropping patterns. If the farmers will be paid more money, they can invest it into market and this will subsequently generate demand.

Farmer's commission can be set up to involve farmer's representation in resolving issues surmounting agrarian distress.

Guaranteed MSP is also one of the solutions, However, according to the Executive Director of the Centre for Sustainable Agriculture, GV Ramanjaneyulu, "if the government provides a legal guarantee to MSP, it will lead to wrong cropping patterns tilted towards high - yielding crops".

More number of government run cold storage facilities and effective implementation of Crop Insurance schemes, proactive governance and administration during droughts and unseasonal rain can help farmer's cause.

The agricultural sector in MP has shown significant improvements in productivity over the past decade, driven by strategic government initiatives, technological adoption, and institutional reforms. Addressing agrarian issues requires continued efforts from the government, community engagement, and a focus on sustainable agricultural practices.

References

[1] Suthar, S. K. (2022). Rural and Agricultural Development: Policy and Politics. In: Dilapidation of the Rural. Palgrave Macmillan, Singapore. https: //doi. org/10.1007/978 - 981 - 19 - 3892 - 4_5

[2] Anjali, J., & Aditi, J. (2013). Inter - linkages of environment and socio - economic development of Madhya Pradesh, India. *Journal of Environmental Research and Development, 7* (3), 1282–1293.

[3] Kumar, A., Kumar, A., Mann, K. *et al.* Analysing district - level climate vulnerability pattern in Madhya Pradesh, India, based on agricultural and socio - economic indicators. *Environ Monit Assess* 196, 528 (2024). https: //doi. org/10.1007/s10661 - 024 - 12646 - 7

[4] Bhoi, B. K., & Dadhich, C. L. (2019). Agrarian distress in India: Possible solutions. *Indira Gandhi Institute of Development Research, Mumbai, India, WP*, *17*, 1 - 13.

[5] Singh, R. (2020). Farmer's income and agrarian distress: The case of India. *World Food Policy*, *6* (2), 105 - 118.

[6] Sharma, A., & Sen, S. (2021). Impact of drought on economy: a district level analysis of Madhya Pradesh, India. *Journal of Environmental Planning and*

Management, *64* (6), 1021–1043. https: //doi. org/10.1080/09640568.2020.1797651
[7] https: //hdl. handle. net/10419/176366
[8] https: //indianexpress. com/article/explained/in - shivraj - chouhan - agriculture - gets - wealth - of - his - mp - work - experience - 9384309/
[9] https: //sehore. nic. in/en/agriculture/#: ~: text=Sehore%20district's%20agro%2Dclimatic%20zone, is%20about%203.95%20lac%20hectares.
[10] https: //www.ndtv. com/india - news/in - madhya - pradeshs - sehore - district - drought - hit - farmers - in - distress - 1278560
[11] https: //www.cnbctv18. com/economy/mp - farmer - loss - distress - sales - cold - storage - tomato - garlic - shivraj - singh - chauhan - 16561621. htm
[12] https: //theprint. in/india/mp - is - riding - on - an - agri - boom - but - there - are - echoes - of - punjabs - green - revolution - failures/1831445/
[13] https: //www.cnbctv18. com/economy/unseasonal - rains - crop - damage - revenue - loss - farmers - maharashtra - punjab - haryana - 16516961. htm
[14] https: //www.cnbctv18. com/economy/farmers - anxious - rains - damaged - crops - what - could - be - solutions - msp - protests - 16225401. html