



DISPARITIES IN OVERALL FACTOR PRODUCTIVITY IN AGRICULTURE IN HARYANA

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ABSTRACT

The cropping pattern can be defined as the spatial sequence of cropping under various crops for a given area at a certain time. There have been a lot of changes which have taken place in cropping pattern of Haryana since Green revolution. The Haryana government encouraged the farmers to cultivate Wheat and Rice as a part of this green revolution drive and procure both these crops at MSP. The present paper is attempted to present an analytical account of Wheat and Paddy crops in the state of Haryana. The paper studies the various causes responsible for disparities in the overall factor productivity in different zones of Haryana. . Secondary data from books, journals, periodicals etc. has been used to draw conclusions for the present paper. The paper finds that the change in cropping pattern of the crops has largely been affected by the changing market- oriented farming of the crops which has in turn, affected the soil fertility, nutritional value of crops and environment as well.

KEYWORDS- Agriculture, Cropping Pattern, Disparities, Productivity, Green Revolution.

Introduction

Introduction

Haryana is predominantly an agricultural economy dominated by agricultural and cropping practices. Haryana recorded a remarkable growth in the agriculture sector which helped Haryana in attaining self sufficiency in food grains production. The changes in agricultural inputs technology and the modernisation techniques introduced as a result of Green Revolution reforms, the state has shifted more towards the production of Wheat and Rice crops due to better inputs and also better support given by the government in the form of Procurement at Minimum Support Prices as well as providing other facilities like subsidies on fertilizers, seeds, irrigation

facilities and more. This in turn, favours the production of majorly these two crops even more.

The Indo Gangetic plain's intensive Rice Wheat system in the north-west has contributed to make it a significant cereal basket in the South Asia and thus it has also emerged as an area strategically important for national as well as regional food security.

However, the increasing dependence on ground water as well as overuse of fertilizers has resulted in one of the lowest total factor productivity for this wheat rice system in comparison to other wheat based systems. And hence, there is a quest to address the challenges faced by the farmers by finding appropriate responses like better understanding of farmers' practices and thus helping in reducing these challenges.

Review of Literature

Kumar and Mittal (2006) estimated crop-specific Total Factor Productivity (TFP) growth across different states for paddy and wheat. The results indicated that TFP of paddy in Haryana and Punjab had started showing deceleration in but in case of TFP of wheat remained growing in these two revolution states. The sustainability issues related to various crops was also studied and was found that most of the crops specially principle crops such as rice and wheat were suffering from the serious sustainability issues as they are prone to much ecological and economic factors. Whereas the cash crops such as sugarcane and tobacco were much susceptible to the environmental factors as they have to suffer from interstate problems.

Kalamkar et al. (2002) had examined the growth in area, production and productivity of principal crops in India for a period of 49 years (1949-50 to 1997-98). The compound annual growth rate using exponential functional forms were worked out for the major crops. The results revealed that for most of the principal crops under consideration the results were positive and significant for observed the periods. A high growth rate in production was accompanied by increased variability in production and the risks associated with the production of the crops under study. The principal crops under study such as rice, jowar, bajra, maize and sugarcane had a greater impact of yield effect whereas the area effect was more prominent in tur and oilseeds while wheat recorded a majority of the interaction effect towards the increase in production.

Research Methodology

The present study is based on the Secondary data scanned from various sources which

includes Statistical Abstract of Haryana and various books, journals and papers published.

Objectives

The objective of the present study is to study the various causes responsible for disparities in the overall factor productivity in different zones of Haryana.

Results and Findings

Haryana has four distinct climatic zones: the Tropical Humid, Tropical Semi-Arid, Subtropical Semi-Arid, and Arid regions. Here's a classification of resources for each of these climatic zones:

1. Tropical Humid Zone:

- **Agricultural Resources:** Fertile soil for crop cultivation, abundant water resources for irrigation, suitable for a variety of crops including rice, wheat, sugarcane, vegetables, and fruits.
- **Forest Resources:** Dense forests with a variety of flora and fauna, providing timber, fuelwood, medicinal plants, and wildlife resources.

2. Tropical Semi-Arid Zone:

- **Agricultural Resources:** Moderate to low rainfall, suitable for rain-fed crops like millets, pulses, oilseeds, and cotton. Limited availability of water for irrigation.
- **Horticultural Resources:** Suitable for the cultivation of fruits like citrus, mangoes, and guavas.
- **Livestock Resources:** Rearing of cattle, goats, and sheep due to availability of grazing lands.

3. Subtropical Semi-Arid Zone:

- **Agricultural Resources:** Moderate rainfall, suitable for a variety of crops including wheat, mustard, gram, barley, and vegetables.
- **Horticultural Resources:** Cultivation of fruits like oranges, kinnow, pomegranate,

and vegetables.

- Livestock Resources: Rearing of cattle, buffaloes, and poultry.

4. Arid Zone:

- Agricultural Resources: Low rainfall, limited agricultural activities due to water scarcity. Focus on drought-resistant crops like millets, pulses, and oilseeds.
- Livestock Resources: Rearing of camels, goats, and sheep, as they are better adapted to the arid conditions.
- Mineral Resources: Rich in mineral deposits like gypsum, limestone, and bentonite.

It's important to note that the classification of resources may overlap in some cases, as certain resources can be found in multiple climatic zones. Additionally, human interventions, such as irrigation and technological advancements, can modify the resource availability and utilization patterns in each zone.

Disparities in overall factor productivity across different zones of Haryana can be influenced by several factors. Here are some potential causes:

1. Agricultural Practices: Variations in agricultural practices, such as the use of modern technology, irrigation systems, and crop diversification, can affect productivity. Regions with more advanced techniques and access to resources may have higher productivity compared to those with traditional farming methods.
2. Infrastructure Development: Disparities in infrastructure, including transportation networks, irrigation facilities, power supply, and connectivity, can impact productivity. Areas with better infrastructure tend to attract more investments and have improved productivity levels.
3. Access to Credit and Finance: Availability of credit and financial services can be a significant factor. Unequal access to financial resources and institutional support can

hinder productivity growth in certain zones, particularly those with limited access to formal banking and credit facilities.

4. **Educational and Skill Levels:** Disparities in educational attainment and skill levels across different zones can influence productivity. Areas with higher literacy rates and a skilled workforce are more likely to experience higher productivity due to better utilization of available resources.
5. **Research and Development (R&D):** Investments in R&D and technology adoption can significantly impact productivity levels. Zones with greater emphasis on research, innovation, and technology transfer may experience higher productivity gains compared to those lacking such investments.
6. **Industrialization and Diversification:** The presence of a diverse and developed industrial base can enhance productivity in certain zones. Regions with a mix of industries, including manufacturing, services, and agro-processing, tend to exhibit higher overall factor productivity.
7. **Natural Resource Endowments:** Disparities in natural resource availability, such as land fertility, water resources, and mineral deposits, can affect productivity. Areas with abundant and fertile land, ample water supply, or other valuable resources may have higher productivity levels.
8. **Government Policies and Support:** Variations in government policies, subsidies, and support for agriculture, industry, and infrastructure development can influence productivity across zones. Favorable policies and targeted interventions can boost productivity, while inadequate support can lead to disparities.
9. **Socioeconomic Factors:** Socioeconomic conditions, such as income distribution, poverty levels, and social inequality, can impact productivity. Areas with high poverty rates or significant income disparities may face challenges in achieving higher productivity levels.

10. Market Access and Integration: Disparities in market access and integration can affect productivity. Zones with better connectivity to regional and national markets, access to information, and a developed supply chain infrastructure are more likely to experience higher productivity.

It's important to note that these causes are not exhaustive, and the specific factors contributing to productivity disparities in Haryana's different zones may vary based on local conditions and context.

Conclusion

Haryana is one of the major food producing states in India. And since Green revolution there was much stress on cultivation of 2 crops rice and wheat which played a significant role in making the Haryana state a major food bowl of the country. Since time progressing, the temporal and spatial study of both the crops signify a significant shift towards the cultivation of these crops after the green revolution reform period accruing to better input facilities and better government support schemes introduced at various times accordingly so as to achieve the objective of self sufficient India in terms of food security.

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