

# Trends & Pattern in the Changes of Agriculture Systems in India

(A Case study of Jind, Haryana)

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## ABSTRACT

The present research paper deals with the change in the trends and pattern of Agriculture Systems in India as well as Haryana. Jind district is taken as study area for research. The study emphasized on seasonal change in agriculture in district from 2006 to 2013. The district shows the direct impacts of green revolution on various crops. The fertile soil and rich water resource are responsible for good agriculture conditions in the study area. But since last few years due to increase in excessive use of groundwater and chemicals fertilizers productivity decreasing gradually.

## 1. Introduction

Agriculture means cultivation of land & rearing of animals. It includes cropped area and fellow land. Cropped area at a given point of time is called as net sown area used more than once in a year. Agriculture is a primary activity, which produces most of the food that we consume. Besides food grains, it also produces raw material for various industries. India is an agriculturally important country. Two third of its population is engaged in agricultural activities. Till 1971 about 80% of India's population lived in rural areas depended directly or indirectly on agriculture. It contributed 45 percent of Gross Domestic production (GDP) at that time. Agriculture productivity has a special meaning in agriculture geography and is defined as total agriculture output per unit of cultivated area per agricultural worker or per unit of input in monetary values. These may be referred to as "Land productivity" Labor Productivity and 'Capital productivity' respectively. Improvement in agricultural productivity is generally the result of a more efficient use of the factors of production viz. environment, arable land, labor, capital and the like. The productivity is a physical rather than a value concept, which describe the relationship between the output and major inputs like land, about and capital.

Technique adopted for computing efficiency in level of agricultural productively per unit of time, or per unit of farm work force etc.

- Assessing the value of agricultural production per unit area.
- Measuring production per unit of farm labour or man – hour.

- Using the carrying capacity of land in terms of population.
- Determining an index of productivity.
- Computing the crop yield and concentration indices raking coefficient.

## 2. Study Area

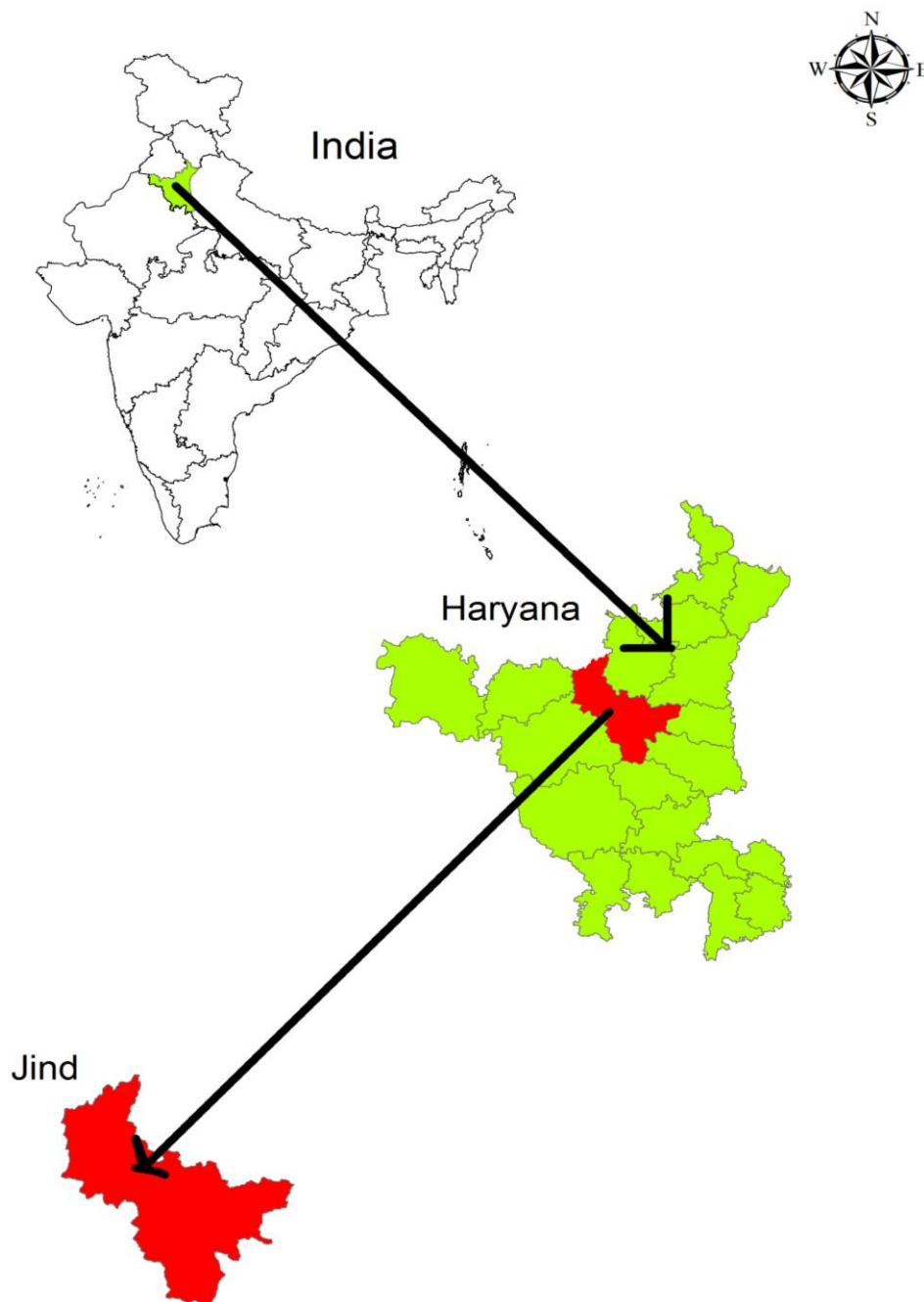
The study deals with the changes of Agricultural systems in India as well as in Haryana. Here, our main focus is on Jind district which is located in mid of the state. Jind district is very rich in agricultural productivity because of its physical location. There are total 312 villages, 4 tahsils and 7 blocks in the district.

## 3. Objective

1. To know the agriculture pattern and productivity in India as well as in Haryana
2. To know the pattern and productivity in Jind
3. To identify the sectional changes in the Agricultural pattern in district.

## 4. Methodology

Research mythology is a vital Part of any research project. This Study is mainly based on Secondary Source of data. The data for Study down from Statistical abstract of Haryana, State Ministry of agriculture and District Agriculture Department. GIS Arc was used for the mapping of study area.



Map. 1.1 Location Map of Jind

## 5. Agriculture Pattern in India

The agriculture pattern in our country changes according to seasonal change. Various types of food and fiber crops vegetables and fruits, spices and condiments etc. constitute some of the important crops grown in the country. India has three cropping seasons: rabi, Kharif and Zaid.

### **Rai :-**

Rabi crops are sown in winter from October to December and harvested in summer from April to June. Some of the important rabi crops are wheat, barley, peas, gram and mustard. North & North western part & such as Punjab Haryana, Himachal Pradesh, Jammu & Kashmir, Uttaranchal & Uttar Pradesh are important for the production of wheat & other rabi crops.

### **Kharif:**

Kharif crops are grown with the onset of monsoon in different parts of the country and these are harvested in September-October. Important crops grown during the season are paddy, maize, jowar, bajra, tur (arhar), moong, urad, cotton, jute, groundnut, rice. Growing regions are Assam, West Bengal, coastal regions of Orissa, Andhra Pradesh, Tamil Nadu, Kerala and Maharashtra. Particularly the (Kankar coast) along with Uttar Pradesh & Bihar. Recently, Paddy has also become an important crop of Punjab and Haryana. In states like Assam, West Bengal & Orissa, three crops of Paddy are grown in a year. These are Aus, Aman & Boro.

**Zaid:**

In between the rabi & Kharif seasons, there is a short season during the summer months known as the zaid season – Some of the crops produced during ‘Zaid’ are watermelon muskmelon, cucumber, vegetables and fodder crops. Sugarcane takes almost a year to grown.

**6. Contribution of Agriculture to the National Economy**

Agriculture has been the backbone of the Indian economy through its share in the Gross Domestic Product (GDP) has

registered a declining trend from 1951 onwards : yet its share is providing employment and livelihood to the population continues to be as high as 63 Per cent in 2001. There is vital importance of agriculture in India. The Government of India made concerted efforts to modernize agriculture. Establishment of Indian council of Agricultural Research (ICAR), agriculture universities, veterinary services and animals breeding centers. Horticulture development, research and development in the field of meteorology and water forecast etc.

**Table 1.1**  
**India: Growth of GDP and major sectors (in%)**

Sector	1980-91	1992-2001	2002-07 Tenth Plan Projected
Agriculture	3.6	3.3	4.0
Industries	7.1	6.5	9.5
Services	6.7	8.2	9.1
GDP	5.6	6.4	8.0

Source: Planning Commission of India

The following table 1.1 depicts the data related to different sectors and GDP in India from 1980 to 2007. GDP growth rate is increasing over the years. It is not generating sufficient employment opportunities in the country.

**7. Development Agriculture in Haryana**

Agriculture Development in Haryana in 1980-90, 1990-2000. There was some development in Haryana. But after 2000. Due to road facility, High yield Variety of seeds, irrigation, water, use of fertilizers, Kisan credit card (KCC). Agriculture Universities etc. agriculture Development increase in Haryana Day by Day.

Components of the green revolution

- High yielding Varieties [HYV] of Seeds
- Irrigation (a) Surface and (b) Ground
- Use of fertilizers [Chemical]
- Use of insecticides and pesticides.
- Command Area Development [CAD]
- Consolidation of Holdings
- Land reforms.
- Supply of agriculture credit
- Rural electrification.
- Rural Roads and Marketing
- Farm Mechanization.
- Agriculture Universities

**8. A Case Study of Jind**

Jind is a central city and district of Haryana which is known as heart of state. This is one of the oldest districts of Haryana. Rani Talab ii located in middle of city which is a tourist place. There is a famous fort in jind which was built in 1755 AD by King Ganpat Singh. The district is very well developed in transportation, agriculture and education. There is a state govt university CRSU in city.

**Profile Study of Jind [Haryana]**

District = Jind  
Sub – Division = Jind, Narwana, Safidon

Tehsil =Jind, Julana, Narwana, Safidon  
Sub – Tehsil =Alewa, Uchana, Pillu Khera  
Block =Jind, Julana, Narwana, Safidon, Alewa, Uchana, Pillu Khera  
Municipal Committee=Jind, Julana, Narwana, Safidon, Uchana

**Towns & Villages :**

Town:- Jind, Julana, Safidon, Pillu Khera, Uchana, Narwana  
Village :- Total Village = 312  
Jind = 99  
Julana = 31  
Narwana = 110  
Safidon = 72

**Table 1.2**  
**Production of Various Crops (000 Hec) in Jind**

Cereals	2006-09	2009-10	2010-11	2011-12	2012-13
Wheat	215.2	215.2	215.8	216.6	215.9
Gram	0.4	0.2	0.2	0.1	0.1
Rice	106.9	108.3	113.9	114.8	114.0
Barley	53.1	44.9	43.2	28.3	22.7
Oil seeds	6.1	5.6	5.0	4.5	4.6
Sugarcane	2.1	1.2	2.1	2.96	3.4
Cotton American & Desi	45.1	46.0	47.3	63.0	66.8

Source: Statistical Abstract of Haryana

The table 1.2 explains about the agriculture production in Jind district from 2006 to 2013. There is not more fluctuation in the wheat crop within that time period. There is decrease in the production of gram. Rice production increased and barley production decreased. But there is vital increase in cotton production.

**9. Conclusion**

The study reveals important clues for agricultural development in Jind. According to findings it can be aptly said that jind is very developed in agriculture due to its location.

Ghaggar River flows adjoining to district and loamy soil is found there in jind. But there is a sharp decline in some crops like gram and barley but there is a huge increase in wheat, rice,

cotton and sugarcane. But in coming years there may be problems of crop yield and production decrease due to over pumping of ground water and maximum use of chemicals.

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