

ISSUES AND CHALLENGES BEFORE INDIAN AGRICULTURAL IN DROUGHT PRONE AREAS- A CASE STUDY OF LATUR DISTRICT, MAHARASHTRA

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ABSTRACT

Agriculture has always been the backbone of the Indian economy and due to the combined industrialization of the last six decades, agriculture is still a source of pride. It employs about 60% of the total workforce in the country. After the 1960s, with the introduction of high yielding varieties of crops and development of agricultural infrastructure for irrigation loan storage and marketing, the condition of agriculture began to improve. But Indian agriculture is dependent on monsoons, farmers face natural calamities like drought, unseasonal rains which cause severe damage to crops.

Keywords: *Indian Agriculture, Indian Economy, Agricultural Infrastructure, Natural Calamities, Monsoons.*

Introduction

Monsoon in 2014 and 2015 was low in important parts of Central India, especially in Marathwada. Drought has hit Marathwada for two years in a row. This has affected the agricultural, industrial and domestic sectors at the regional level and the water supply at the city level. This affected the agricultural sector in Latur district. The case of Latur district has been presented in this study especially to find water management options and underline the challenges for the agricultural sector in Latur district.

Objectives of the Study

- To study the geographical set up of the Latur District.
- To study the impact of drought on agricultural sector of Latur District.
- To study the cropping pattern of the study area.
- To study the Issues and Challenges before Agriculture in Latur District.

Methodology of the Study

The present study is mainly based on primary data and secondary data relating to use of land cropping pattern, rainfall etc. The primary data collected by personal canvassing of questionnaires. This is one of the major sources for data collection. Spot observation are yet another source other information was collected through Talathi Office, and agricultural office.

The secondary data were collected form the Govt. Reports i.e. Central Statistical Organization, Zilla Parishad of Latur.

Scope of the Study

In this investigation we find the low agricultural productivity scarcity of water, defective storage, lack of use of improved technology, economically backwardness of farmers, Low prices of for agricultural products. There is the basic problem of the Latur District is uneven rainfalls. Comparing to other districts, the rainfall in Latur District is very low.

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Geographical Set Up & Cropping Pattern of the Latur District

Latur is located on the southeastern border of the state of Maharashtra. Its geographical area is 7157sqkm and it is 2.32% of the total geographical area of Maharashtra and 11.04% of Aurangabad division. It is located between 18 ° .05 north latitude and 76 ° .25 to 77 ° .25' east longitude. It is bounded on the south by part of Bidar district of Karnataka state and part of Osmanabad district. By Beed and Nanded districts to the north. East and West Bidar, Nanded and Osmanabad districts respectively. The main part of the district is the Latritic Plateau with an average elevation of 609.6 m above sea level. The district is to some extent in the upper Godavari valley. The district is situated on the plateau of Balaghat and is situated in the valley of Manjra river. Manjra is the main river that flows along the Balaghat Plateau with its tributaries: Terna, Tavarja and Gharani. The other three tributaries of Manjara, Manyad, Teru and Landi flow on the northern plain.

Agriculture

Most of the people of this District are engaged in agricultural activities. According to Census 2011, percentage of the total workers engaged as cultivators is 31.69% and as agricultural laborers is 39.79% (percent) in the District. Together they constitute 71.48 % (percent) of the total workers of the District. District is producing Jowar, Soyabean, Cotton, pigeon peas as most common agricultural crops.

The District is divided in five subdivisions and ten tehsils.

There are five Subdivisions and ten talukas listed as below:

Name of Sub division	Taluka
1.Latur	Latur
2. Nilanga	Nilanga, Shirur Anantpal, Deoni
3. Udgir	Udgir, Jalkot
4. Ausa-Renapur	Ausa, Renapur
5.Ahmedpur	Ahmedpur, Chakur

Cropping Pattern

The district can be divided into two zones based on soil characteristics, namely Ahmedpur, Udgir and the first zone found in the eastern part of the district which is part of Latur and Ausa talukas. This includes light and light medium soils. They do not retain moisture and are therefore suitable for cultivation of kharif crops. The soil in some parts of Nilanga taluka is of Latritic type and is the second zone found in the western part of the district comprising Latur and Ausa talukas. They are heavy deep black cotton soils. Due to the specificity of the land, both kharif and rabi crops are grown in this area. Agriculture Crops: Major field crops cultivated in Kharif seasons are Cotton, Soyabean, Other Pulses, Pigeon Pea, Sorghum, Gram, Safflower and Wheat then Major field crops cultivated in Rabi seasons are Wheat, Sorghum, Gram, Sunflower and Sugarcane (Source: Agriculture Plan Latur(ICAR-CRIDA)

Impact of Drought on Agricultural Sector of Latur District

- **Agriculture Production**

Drought leads to decline in agricultural production as the entire growth of agricultural crops depends on rainfall. The average rainfall in 2013-14 has led to an increase in agricultural yields, a significant decline in production in 2014-2015 and a 50% deficit in pulses, oilseeds and cotton as compared to the previous year 2013-2014. Low rainfall in 2014 and 2015 is the main reason behind it

- **Indebtness**

Whatever is spent on cultivation, seeds, pesticides, fertilizers is wasted in drought conditions. Due to the drought in Marathwada, especially many farmers have become indebted to various creditors like bank loans, moneylenders, co-operative societies etc. Therefore, due to the drought in Latur district, the indebtedness of the farmers is increasing rapidly.

- **Farmers Suicide**

The agrarian crisis has led to an increase in suicides in Maharashtra. An important observation regarding farmer suicide is that the number of farmer suicide cases has increased from 1495 (2011) to 2016 (2015) every year except 2013 (1295). In 2013, good rains, high agricultural yields reduced the number of suicides to 1298 and finally saved lives. In Aurangabad, Amravati and Nagpur divisions, the risk of suicide is higher due to rising cultivation costs, crop failure, indebtedness and obstruction of agricultural marketing, the report said.

- **Environmental Impact**

Due to continuous drought conditions, ground water is declining in many parts of the state. People are using water from a distance of more than 600 meters through bore wells, at the same time the frequency of bore wells has also increased. With this rapid search for water, in the near future, our generation will face water scarcity. The long-term severity of the drought leads to the desertification process. This process affects human societies working on dry and fragile ecosystems. Surprisingly, this can lead to malnutrition and death, economic ruin, and social instability. Overall, all types of ecosystems are unbalanced and the consequences are long lasting.

Issues and Challenges

India's massive agricultural sector employs about 60% of the population. Yet accounts for only about 17% of total GDP. Growth in agricultural has stagnated relative to other sectors. The resilience of the farming community in the face of adversities made agriculture the only sector to have clocked a positive growth of 3.4 per cent at constant prices in 2020-21, when other sectors slid. The share of agriculture in GDP increased to 19.9 per cent in 2020-21 from 17.8 per cent in 2019-20. Agricultural incomes are lower and growing slower than incomes in other sectors. The agriculture in study area is facing following challenges.

- In the study area rainfall is very low. i.e. 819.63 mm in 2018-19. The monsoon rain in the study area is often marked by some important variations from the normal, like climate uncertain. Often marked expressed in the commonly held view that "Agriculture" in India is a gamble against the monsoon. It is the most important challenge before agriculture in study area.
- There has been lack of systematic planning of agriculture i.e. cultivation, Production, Processing and marketing.
- The social environment of study area is often stated to be an obstacle in agricultural development. The farmers in Latur district are illiterate, superstitious, conservative and unresponsive to new agricultural techniques.
- Heavy pressure of population on land is one of the challenge in study area. In fact since the non agricultural sector of the study area has not been able to expand at a sufficiently rapid pace, this pressure has continuously increased. Increasing pressure of population on land is partly responsible for the subdivision and fragmentation of land holdings.
- Financial institutions are not able to provide timely and sufficient delivery to farmers.
- 50% of farming community availing credit facilities from private money lenders on higher interest rate which results in to rural indebtedness.
- The agriculture sector is labour intensive. Day to day the wage rate of agricultural labour is increasing. The prevailing wage rate of study area is Rs.250/- per day for women and Rs.350/- for men. It is not possible for the farmers to meet the cost of labours.
- In study area most of the child labours work in agriculture sector. Some of children work with their families on small family-owned farms.
- In study area, the farming practice are too haphazard and non-scientific and hence need some forethought before implementing any new technology. In the study area yet to take a firm ground primarily due to its unique pattern of land holding, poor infrastructure, Socio-economic and demographic conditions.

Recommendations

The majority people in Latur district are mainly depended on agriculture. The economic development of this Taluka is mainly based on agriculture. The problem of agriculture land use planning is envisaged in following ways.

- Use of improved seeds and fertilizers, requires proper irrigation facilities in study area, irrigation can also make multiple cropping possible in a number of areas. Attempts in this field will have to be under taken in the following directions modernizing irrigation systems, efficient water management, adequate maintenance of canals etc.
- It is necessary to provision of credit and marketing facilities in study area. The commercial banks should be encouraged to lend more to small farmers. The marketing structure also needs reorientation to serve the small farmers in a better way.

- In the Latur district agro based industries should be started on co-operative basis. These industries will increase employment level and also raise the socio-economic status of Latur district.
- In study area heavy pressure of population on land and the climatic conditions have put limits on the source of income of farmers. The farmer from the study area has to depend upon only one crop and rarely two crops in a year. There is possibility of positive change in the status of farmer's by introduce the subsidiary, supplementary activities like dairy, poultry, horticulture etc.
- Creating a more productive, internationally competitive and diversified agricultural sector would require a shift in public expenditures away from subsidies towards productively enhancing investments.
- Support the organized private sector in increasing its spending on extension and technology transfer.
- The rural finance would require improving the performance of regional rural banks and rural credit co-operation.

Conclusion

Even if agricultural productivity does increase, it is skill likely to lag behind the explosive information and service sectors. However, the public education system is clearly failing to provide rural children with the skills necessary to enter these labour markets. This is problem the single biggest factor inhibiting the transaction from agriculture to service sector employment. The demand for skilled labours in India has exploded, particularly in the service sector, demand which many firms are finding difficult to meet domestically due to extremely skewed distribution of human capital. Agricultural productivity in India is challenge because of fragmented land holding. Consolidation of land holding is one of the measures to get maximum out it. Government has to take innovate steps to get farmer benefited with the subsidy schemes directly as applicable in other countries to make the farmers self reliant. Banking industry in India has take suggestive measures to cover excluded or unbanked people get benefited to make them out of the rural indebtedness due to the private money lenders. India has a wide network of rural finance institutions, many of the rural poor remain excluded, due to inefficiencies in the formal finance institutions, the weak regulatory framework, high transaction costs, and risks associated with lending to agriculture.

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