

Impact of Crop Pattern on production of wheat and rice in Jabalpur district (M.P.)

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Abstract: *The objective of this research is to understand the impact of Crop pattern on the agro-production.*

Here we will study the impact of crop pattern on wheat and rice production, study conducted for district Jabalpur (M.P.) – India by studying the data collected from various source of government statistics books and websites.

We will also include the challenges and its possible solution which impact the production of crops considering crop pattern.

1. INTRODUCTION

Before understanding the Impact of Crop patter on wheat and rice production we need to understand the crop pattern and then its possible impact on the production of wheat and rice.

Cropping pattern shows the sequence in which various crops are grown in a locality or a zone which is influenced by agro-climatic and socio –economic factors prevailing in the zone.

Or

Though term crop pattern itself is very vast to discuss, while to make it simple – crop pattern is defined as the balance choice of crops among different period throughout the year so that fertilization of soil can be utilize and maintained. However it depends on various factors like climatic conditions, social conditions, economic conditions and time zone, technology available.

Crop pattern is important to follow to optimize the production by maintaining the soil fertility as well as economical gain to farmers which also depends on the factor describe above.

As we know that in this study we are studying the impact of crop pattern in wheat production and rice. India stands second in production of rice and wheat contributing approx. 21% and 11% of world's rice and wheat production.

We will see that the how crop pattern, if, helps in increasing the production of wheat and rice as a sequential crop in Jabalpur. We will see the production of RABI over KHARIP crops.

Prices of food grains have increased to push the production like cotton as well as oil seeds crop. Of-course climatic as well as economical, farm size, technical factors as well as government policies influence the production of crops in different sequential periods.

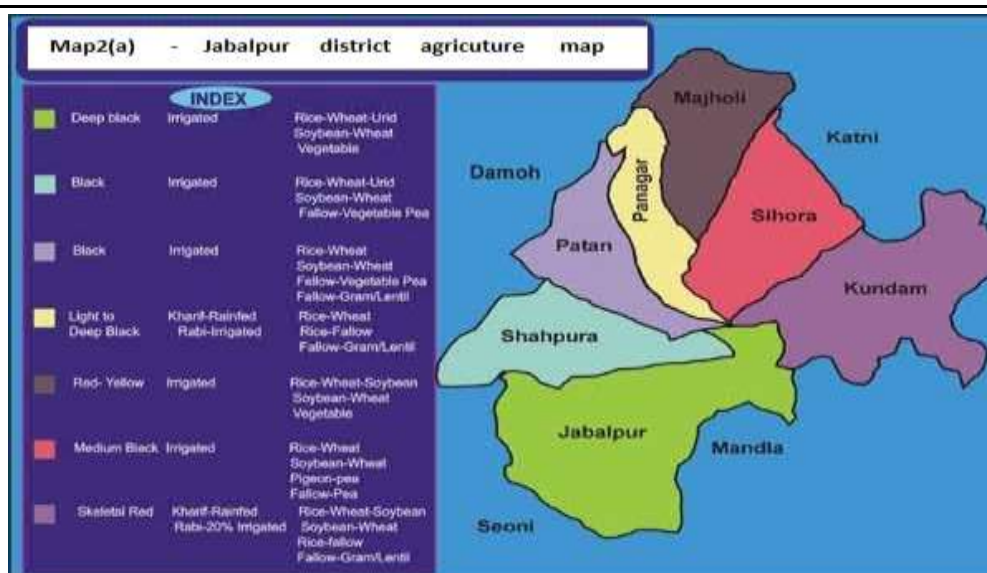
2. STUDY AREA

We conducted the research of “impact of crop pattern on production of wheat” and “rice” in Jabalpur (M.P.) India. Please refer Jabalpur district map as in MAP2(a).

Geographically Jabalpur is situated 23°10 N 79°56 E. Its total area is 5197 square kilometer.

Altitude of Jabalpur is 1348 feet above the sea level. Its summer temperature is 47°C (maximum) and 21°C (minimum) while it varies from 27°C to 8°C in winter.

As per census 2011, Jabalpur district has a population of 2460714.



2.1. Objective of Study

- To understand the production level of wheat and rice in given study area.
- Study of variety of wheat and rice production in the district.
- Analysis if crop pattern impact production of wheat and rice.

2.2. Research Methodology and Data Collection

To study this research, data have been collected based on secondary data collection method from various District statistics papers and agriculture data from government websites. To analyze the data simple mathematical calculations are used.

- Wheat is primary produced rabi crop in the Jabalpur district and it is grown in complete district in winter. It is sowing from 15th November to 30th December typically and harvested between 1st March to 30th April. 80% of the wheat production depends on the irrigation and remaining depends on the rain water.

Kathia, Jalia, Anshia, Sharbati and Kalyan-Sona are the main varieties of wheat are produced in Jabalpur district.

Climate in Jabalpur is supposed to very favorable for the production of wheat.

- Rice is primary produced Kharif crop in Jabalpur district and grown in most of the area of Jabalpur district and farmers are also will to take production of rice due to its economical value which is more than any other Kharif food grains by considering its production over others in same land and environment is also favorable for its production.

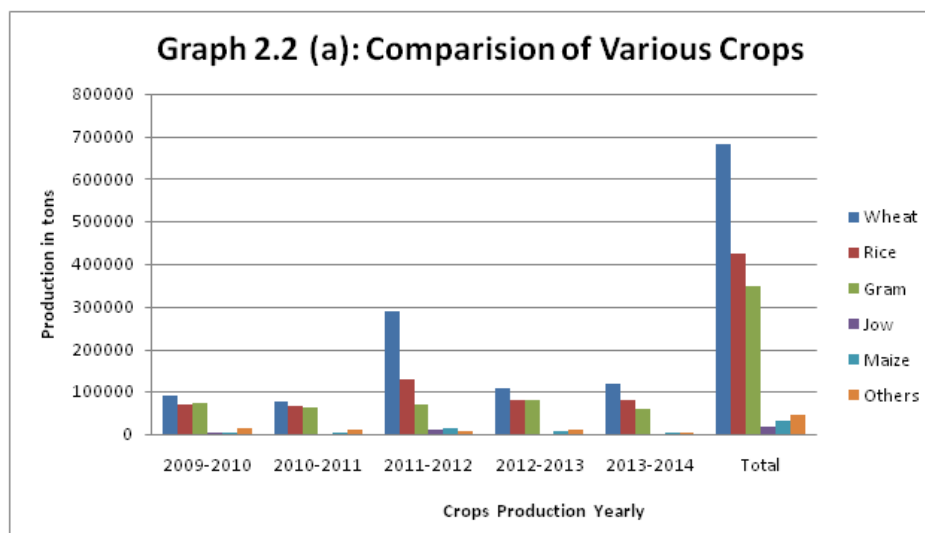
It is grown between July and August during rainy season. The average rain in Jabalpur district marks as 1386mm annually which supports rice production.

Some varieties of rice produced in Jabalpur are Chatia, Duraj, Basmati, Badsha Bhog, Chinor, etc.

Average of Wheat (rabi crop) production stands number one position in the production in Jabalpur district while Rice (Kharif) is second highest produced crop in Jabalpur annually. In below table 2.2(a) and graph 2.2(a), we can compare the previous years' production of certain crops in Jabalpur district.

Table 2.2(a)

Year	Wheat	Rice	Gram	Jow	Maize	Others
2009-2010	90221	68506	73371	3225	4975	12620
2010-2011	77592	67596	62168	2166	4338	12110
2011-2012	287250	127106	71200	11350	12540	6700
2012-2013	106700	81027	81345	1102	5505	10772
2013-2014	119710	81546	59922	1434	4323	4270
Total	681473	425781	348006	19277	31681	46472



In above table 2.2(a) and graph 2.2(a) we can observe that the production of wheat is highest in any year as Rabi crop and Rice is second largest in the annual production as Kharif crop annually. Wheat and Rice both are sequential crop and justify the crop pattern and its impact on its production which is highest for both for their period i.e. Rabi and Kharif respectively.

2.3. Problems

Though, many factors influence crop pattern and its impact on production of various crops.

There are some challenges which are faced by farmers while production of not only wheat and rice but for other crops as well. These are as under;

2.3.1. Lack of Irrigation Facilities

Most of the farmers, face problem, are depends on irrigation for their crops by tube well, Lakes, etc , in lack of electricity or even lack of electric pumps and insufficient tube well farmers face the irrigation problem and depends on rains instead of their “insufficient re-sources”.

2.3.2. Traditional Faming

Second challenge is, use of traditional way of farming means lack of technology like lack of use of tractors, latest fertilizers & pesticides, improved seeds, etc

2.3.3. Lack of Manpower

The word itself explains the problem as lack of manpower.

2.3.4. Environment Change

It includes the sudden change of environment and sudden heavy rain or lack of rains.

2.3.5. Improper Storage Facility

Lack of storage facility for prepared crops after harvesting.

2.4. Solution

We tried to find out the possible solutions for the problems given in (2.3). Please refer the possible solutions as under;

2.4.1. Lack of irrigation facilities

To counter this problem government is working to facilitate sufficient water for irrigation by dam like “Bargi dam”, by government schemes like “Balram Tal Yojna”, by educating farmers for water recycling and y creating various stop dams. Government is also committed to provide sufficient electricity as well as electric pumps by providing subsidies to make it reach to every farmer.

2.4.2. Traditional Farming

Government and many NGOs are motivating farmers to use of latest technology, improved quality of seeds which use less water to prepare and more production.

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Cooperative societies run the education center which helps to provide knowledge of various Schemes and subsidies on technical instruments and their technical aspects for better productivity. These societies also provide improved seeds and fertilizers for better production.

2.4.3. Lack of Manpower

Study also observes that there is a lack of manpower which impacts production of crops during initial stage and/or harvesting. This problem is not easy to eliminate, but use of tractors (for which subsidies are providing by Govt.), use of harvesters and better MRP scheme by government helps to face this challenge.

2.4.4. Environment Change

By being human kind we may not control the environment, while we can contribute for good environment.

To face sudden environment change like excess rains or less rains, etc. Government is committed for various insurance schemes like “FASAL BIMA YOJNA” which at least provide the return on investment to farmers to save them from loss.

2.4.5. Improper Storage Facility:

Government and various private warehouse schemes and subsidies are launched by state and central government for better storage facilities to save the ready crops from spoiling, which is also helping farmers to keep their crops until better return.

3. CONCLUSION

As we know that wheat and rice are main crops in Jabalpur district by their production.

However, we also studies the challenges and their possible solutions and we find in Jabalpur district that many factors support the production of wheat and rice by justifying crop pattern and its increase production by showing acceptance by society for wheat and rice production i.e. social factor favors wheat & rice in Jabalpur, government policies, climate as well as type of soil and its economical gain are in favor of wheat and rice production.

Wheat is highest produced crop as Rabi and rice is highest produced crop in Kharif period, we can also refer the graph 2.2(a) for comparison and both wheat and rice are sequential crops which justify that the positive impact of crop pattern for the production of wheat and rice.

REFERENCES

- [1] Government websites: <http://www.jabalpur.nic.in/> & <http://www.kvkjabalpur.nic.in>
- [2] Veber J.C. (1954) - (Crop combination region in the middle west USA, Geographical review Vol 44)
- [3] Tyagi V.S. (1972) – (Agriculture intercity in Chinnor city)
- [4] Tripathi V. V. (1970) – (Ganga-Yamuna Doab – A study in the pattern of crop concentration, Geographical review of India)
- [5] Bhatia S. S. (1965) – (Pattern of Crop Concentration and Diversification in India)
- [6] Book : Tiwari and B.N. Singh (2012) – (Krishi Bhugol Prakashan, Prayag Pustak Bhavan, Allahabad)
- [7] Gupta P. K. (2013) – (Krishi Arth-shastra, Bandha PublicationPvt Ltd, New Delhi)
- [8] Sharma B. L. (1991) – (Krishi Bhugol, Sahitya Bhavan, Agra).
- [9] Hussain M. (1970) – (Pattern of crop concentration, Geographical review of India).

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