



CROPPING PATTERN IN BALARAMPUR TRIBAL AREA OF PURULIA DISTRICT, WEST BENGAL

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ABSTRACT

Agricultural sector has a significance role in Indian economy. For proper development of agricultural production, a farmer must have clear knowledge about cropping pattern. 'Cropping pattern' can be said as in a certain point of time the production of area cover with various crops. This study also tries to analysis the cropping pattern at Balarampur Block in Purulia District. Our objective is that, to analysis the present scenario of cropping pattern in Balarampur block. For this analysis both primary and secondary data has been used. Primary data has been collected through a questionnaire and also applied personal interview, group discussion, focus group diction etc. District Statistical Hand Book (DSHB) has been used as a secondary data base. In Balarampur block the maize crop has been produced in highest amount according to DSHB in 2014-2015. The crop production of Balarampur block is moderate compare to other blocks in Purulia district.

KEYWORDS: Kharif crop, Rabi Crop, Zaid Crop, Cropping Pattern.

INTRODUCTION

The backbone of Indian economy is depends upon the agricultural sector. So this sector holds an important position in academic domain. For properly manage this sector it is necessary to get proper information. In this connection 'cropping pattern' is an important concept to keep information about various crops. It is helpful for future planning and maintains the diversities of crops towards sustaining our progress.

The term 'cropping pattern' comprised with two words 'crop' and 'pattern'. Where crop means all kinds of plant products that can be cultivated for economic profit or for sustaining the life. 'Pattern' refers to the probability of regular occurrence of a particular phenomenon in the world or in man-made environment. Simply the cropping pattern means the production of various crops in a particular area and in a certain time. It is regulated by various natural as well as man-made phenomena. The cropping pattern of a particular place has been highly influenced by the local climate. Where the climate is highly dry, their drought tolerant crops are shown and their life cycle too much shorter than any other types of rain fed crops. On the other side where humid climate is prevailed, their flood tolerant crops are shown. Soil is an important controlling factor for determining the cropping pattern. Topography also plays an important role like climate and soil. The man-made causes are cultural practices, use of fertilizer and use of pesticide etc.

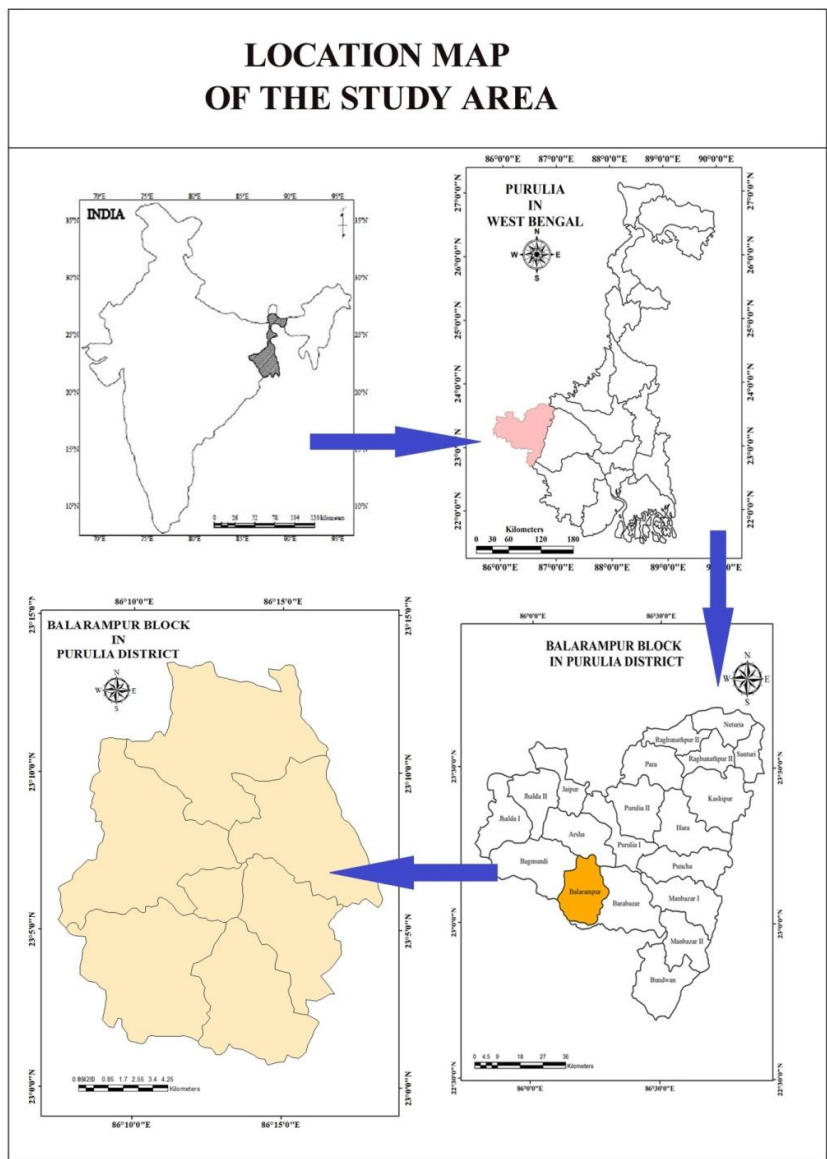
STUDY AREA:

The present study area is a small part of Purulia district. It is situated in the southern portion of the district. The study area i.e.



Balarampur block is one among 20 blocks of the district. It surrounded with different blocks and with neighbouring state. The northern portion of the study area surrounded with Arsha block, eastern portion with Barabazar block, western portion with Baghmundi block and south western portion with Jharkhand state. The geographical extension of Balarampur block is from 23° 0' 00" N latitude to 23° 15' 00" and from 86° 5' 00" E longitude to 86° 20' 00" E longitude.

Figure.1 Location Map of the Study area



Objective:
To points out the present scenario of cropping pattern of Balarampurtribal area.

METHODOLOGY:

The study has been carried out by using both primary and secondary data. The whole work have gone through three stages, these are i) Pre-field ii) Field and iii) Post-field.

The methodological details are given below

- i) Pre-field: In the initial stage of this study the researchers went through various articles, books and collected district census hand book of Purulia district. After that a pilot survey has been done. Finally a suitable questionnaire has been prepared.
- ii) Field: The data has been collected by considering different sampling methods like as Random sampling, purposive sampling method, focused group discussion and personal interview.
- iii) Post field: After gathering primary and secondary data a crop calendar has been prepared and with the help of crop calendar the researchers explain the present scenario of cropping pattern.

CROP CALENDAR

Crop calendar is crucial one for a person who engaged with agriculture. It is help full to understand what type of crops should be cultivated in a particular season. We able to know about the last rainfall have fallen in which time. It is also useful to predict the approximate dates of rainfall, condition of temperature and moisture in a particular month or season of the year. We able to also know the last rain fall have fallen in which time. On the other hand crop calendar is also important and through this calendar we come to know, how much crops has been produced in a particular place in a particular year or season. Different crops of the study area have been seen in a crop calendar and showing the sowing, growing and harvesting time in a pictorial diagram. The pictorial representation of crop calendar is easy to understand the cropping pattern.

Table. 1. Crop Calendar

INDEX SEASON	SOWING TIME				HARVESTING TIME			GROWING TIME				
	KHARIF				RABI			ZAID				
CROPS	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APRIL	MAY
PADDY												
WHEAT												
MAIZE												
MUSTARD												
KHESARI												
TOMATO												
POTATO												
KUTHHI												
LADIES FINGER												
BRINJAL												

Source: Field survey done by the authors in 2017

SEASON**Kharif season:**

The domesticated plant which has been cultivated during June to November in India is called as Kharif crops. In Purulia 285614 thousand hectares area has been used for kharif crops. Mainly rice (Aman), maize and khesari are predominantly seen in this study area. It contributed a large portion of total food grain of Purulia district. According to District Statistical Hand Book 64310.128 thousand tons kharif crop has been produced during the year of 2014-15. The highest amount of kharif crops (77.955 thousand tons) has been produced from Barabazar block and minimum amount of crops has been produced from Neturia block (14.955 thousand tons) in 2014-15, where Balarampur block produced 40.83 thousand tons kharif crops.

Paddy: In Purulia, The Aman rice has been produced as an important kharif crop. Aman rice have been cultivated approximately 279151 thousand hectars an area, according to DSHB in 2014-15. The ploughing of aman rice is starts from the middle of May to June. Though the ploughing time depends upon monsoon rainfall and it harvested during the month of October and November. According to DSHB in 2014-15, Barabazar block has the highest production (77.583thousand tons) and Neturia block shows the lowest production (14.24tons) in case of aman rice cultivation, where the present study area has moderate amount of aman rice production (36.136thousand tons).

Maize:Maize is another important kharif crops in Purulia district. Maize, otherwise called as corn. It was domesticated for first time in South-Mexico by a group of indigenous people. This particular crop shows during the month of May to June and it does grow within the months of July to September and harvesting time is October to November. In Purulia maize crop has been cultivated in an area of 6317 thousand hectars. The highest production of maize crop has been seen on Balarampur block and lowest have been seen at Neturia in Purulia. From the above discussion the study area has the highest production during 2014-15 reference to DSHB.

Khesari: Another Kharif crop of Purulia district is khesari crop. The sowing time of khesari crop is the month of May to June. This crop grows on during the month of July to September and plough up during the month of October to November. This crop cultivated in an area 146 thousand hectars in Purulia. The highest amount (0.069thousand tons) of khesari crop has been produced in the block of Baghmundi block, where the study area has no significance production of khesari crop.

RABI CROP/SEASON

The word 'Rabi' has its origin in Arabic literature. The crop which cultivated in winter season is called Rabi crop. The main characteristics of Rabi crop is that it's sustain in dry condition. Rabi crop has been cultivated in an area of 16333 thousand hectars in Purulia District. Arsha block has the highest production (2829.759 thousand hectars) of Rabi crop among the other blocks of Purulia district and Neturia block has the lowest production (0.098thousand tons). In the case of our study area, it has Significance contribution in Rabi crop production amount of 587.23thousand tons has been produced with reference of District Statistical Hand Book in 2014-2015 years.

Wheat: Wheat is the dominant crop among Rabi crop in India. Wheat has been plough during the month of November to December. Growing season of this crop is January to February and lastly it harvested during the month of March and April. Wheat crop has been cultivated in an area of 1622 thousand hectars in Purulia districts and it produced 4 tons. The highest amount (1.215 thousand tons) has been produced in Barabazar block and lowest production in Kashipur block (0.002 thousand tons). The amount of wheat production in our study area is 0.011 thousand tons.

Mustard: Mustard oil has been prepared from Mustard and it also use as Spice. Thus Mustard is an important Rabi crop. The sowing season of mustard crop has been started from October to November and Growing season is spread throughout the whole December and January month. Lastly the crop is harvested during February and March. The mustard crop has been cultivated in an area 1885 thousand hectars in Purulia district. According to DSHB the highest amount (0.10 thousand tons) of mustard has been produced in Purulia block. In the study area in Balarampur has been produced in an amount 0.08 thousand quintal.

Tomato: Tomato, one of the important vegetables of Purulia district. This vegetable has also cultivated commercially. Farmers earn money by exporting this vegetable outside of the district. The sowing time is winter season; the months are Oct- Nov. The most important characteristics of this crop are that, this plant cannot tolerate frost and high humidity. The plant is highly affected by diverse weather condition. It requires different climatic condition for sowing, Growing and harvesting. In Purulia tomato crop has been cultivated intensively in different blocks like as Balarampur, Bundwan and Jhalda block.

Potato: Potato is one of the importantcropsamong Rabi crops. It has also an important crop in Northern India. Its sowing time in Purulia is October to November and harvesting time is January to February, though it varies from one place to another place. In Purulia district the potato has been cultivated

within 477 thousand hectares areas and according to DSHB in 2014-2015 total production of potato in Purulia is 9974 thousand quintals. In Arsha block maximum tomato has been produced according to DSHB in 2014-2015. In our study area it has been produced 587 thousand quintals.

ZAID CROP/SEASON

Ladies Finger: Ladies finger is a common vegetable in India. Its have different names in different parts of India like as 'Dhenras' in Bengali. It is sown during the period of February to March. The exact month of sowing is depending upon climatic condition. It has been grown well between the range of temperatures 24⁰c to 27⁰c (Wikipedia). This crop has also sown in rainy season. But in Purulia, it is mainly seen in winter season. It's not grown in Alkaline and saline soil.

CONCLUSION:

From the above discussion, it is seen that our study area has occupied a moderate position for crop production in compare to other blocks of Purulia District. In our study area the maize crop has been produced in highest amount. The area is situated in a peculiar plateau region and dry climatic region. This is one of the main barriers for agricultural development in this region. The climatic, weather and soil condition is suitable for pulses cultivation. Therefore it can be say that government should take necessary step for agriculture growth in this region. In this area pulse crops are more suitable because these types of crops can survive in high temperature, extremely dry condition and even in scarcity of water.

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