

# Ecosystem Study of Rural Borsar village of Vaijapur Block At Aurangabad District In Maharashtra

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**Abstract-** This study was done with forty days experience of staying and learning with the community. For the study Borsar village of Vaijapur block at Aurangabad District in Maharashtra was selected. This study was done mainly through the participatory approaches to understand the village through a detailed manner. Poverty was the center of the study but a multidimensional vision of the village is captured in the study. It includes the social, economic, cultural and the ecological dimensions of the village. This study also closely observed the problems of the villagers which became the hurdles of the way of development.

**Keywords-** Ecosystem Study, Rural study, Maharashtra, India

## I. INTRODUCTION

India is well known as country of villages. According to a study of Tripathy (2020) a village is a geographically distinguishable place which is habitat of some human beings who lives in groups called family are socially, culturally and economically interrelated with each other. According to the data of census 2011 of India, 68.84 per cent Indians are stayed in village which is around 833.1 million people live in 640,867 different villages. Ecosystem study mainly amalgamate with the study of certain processes that link the living, non-living, and biological component. Villages are the living fossils of a nation, it contains the ancient wisdom. Through the time this wisdom enriched with current knowledge but never lose its own glory. Villages are living through the generations, an in depth village study always helps to understand a place through a multidimensional vision.

The village 'Borsar' located on the bank of river, Bor. A big temple of lord shiva and 11 different temples of Lord Vishnu, Shani, Mhsoba and Jogeshwari are situated nearby river. In village a typical well with stairs is present which is believed to be constructed during the period of empress "Ahilyabai Holkar." In the centre of village, there is big bungalow of Shri. Balasaheb V. Joshi. This bungalow is good example of ancient Maharashtrian architecture.

## II. STUDY AREA AND METHODOLOGY

To understand the ecosystem of a rural area Borsar village of Vaijapur block at Aurangabad District in Maharashtra was selected. This study was done to explore the existing systems in the rural society. According to Tripathy and Khan (2020) the participatory tools are the most efficient tool to understand a village deeply. So the same methodology were used to collecting the data. Where a homogeneous groups of people were invited and the optimum ignorance was followed.

## III. RESULT AND DISCUSSION

### Social dimension

#### Demography

Borsar village is located in Vaijapur Tehsil of Aurangabad district in Maharashtra. Borsar village have total 5092 population in 1002 household. The 3777 population belongs to OBC and OPEN, 1088 population belongs to SC community and 227 belongs to ST community.

**Table 1 Demographic details**

Particulars	Numbers
Total Population	5092
Male	2661
Female	2431
Households	1002
Literacy rate	76.84 %

#### Gender

The average sex ratio of Borsar village is 914 which is lower than Maharashtra state average of 929. Child sex ratio as per the census 2011 is 801 which is also lower than Maharashtra state average of 894. Now if we closely observe the work distribution through the gender it can be observed that women have to work more hours than the man in a day. In chart no 1 the inner circle and the red boxes are

representing the work distribution of a male member and the outer circle and the blue boxes represent the work distribution of female member of family. Here it can easily point out that women are working in farm or as labour and at the same time they also contribute in the household work. On the other hand women get less sleeping and the recreation time compare to the men. This shows the level of drudgery over women in a family of rural household.

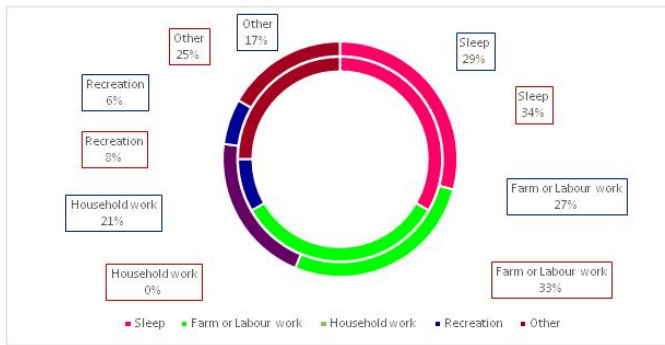


Chart 1 Gender wise Work-hour distribution

### Family structure

From social map it is understood that most of the families in both villages are joint families. Only few families in the village are joint family. In Borsar village there are 17 per cent families belong to nuclear family and 83 per cent families belong to joint family.



Figure 1 Village social Map

### Health

The village has one Public Health Centre and one Private clinic. Public Health Centre provide effectively their services and scheme. There is one doctor in PHC. The PHC has 24 hours Ambulance service, in case of emergency people use ambulance. In Public Health Centre delivery theatre is available with all needed equipments. If any emergency they

refer the patient to the Vaijapur which is 18 Km away from village. Sanitation in PHC is fully dull as well as drinking water system is not available. In the study of Khan and Tripathy (2020) of two villages in Odisha describe the same problem of accessibility of hospitals. This is the real face of rural health infrastructure.

### Transportation

Transport facility is not so good in both the village. The road condition is poor. The Borsar village is nearly 5 km away from the nearest highway (Aurangabad-Nashik) Khandala. From Khandala to Village road condition is bad. Bus service is from 6 am, 9 am, 4 pm and 8 pm available in the village. Nearby railway station is Parsoda which is 7 km and Rotegaon which is 12 km from the village. Auto rickshaw is also rare in the village. Villagers use mostly motorcycle for travelling.

### Language

The native language of the village is Marathi and most of the villagers communicate in Marathi. Apart from Marathi language people can speak in Hindi. The Muslim community of the area also know Urdu as an additional language.

### Affinity Groups

In this area there are common group named “*EkGaon, EkGanpati*” or “One village, One *Ganpati*”. This concept was started to stop the competitive mentality among the youth groups in the village, during festivals. People celebrate the *Dussera* festival in the locality and create their own groups. Other than this there are two *Bhajanmandals* present in the village one is *Sai group mandal* and another is *Narendra Swami Bhajanmandal*. Some youth groups celebrates commonly Birth anniversary of freedom fighter and do social workers also can be recognized as local affinity groups in the village.

### Education

There are five primary school in different parts of the village and one high school. This school was established in 1964. According to the student the classes are very irregular and the quality of education is very poor. The parents of the students also supported this statement. For higher studies students have to go to the block head quarter which is far from the village. Tripathy and Khan (2018) about a village named *Keelamattayan* similar type of problems were described there.

## Cultural dimension

### Festival

People give more importance to every festival because peoples strongly believe in culture and tradition. Each community on some characteristic aspect celebrates the festival to its cultures and religion. Citizens celebrated the festivals such as Makar Sankranti, VadPonima, Shiv Jayanti, Pola, Rakshabandhan, Dussehra, Diwali and Christmas etc. there is two famous festival in village i.e. Devdongari baba yatra and Mhasobayatra. Diwali is the biggest festival in the village that time people purchase new clothes and variety of food items each family spent Rs. 15000 to 18000 for this festival.

**Christmas** is an annual festival commemorating the birth Jesus Christ primarily celebrated on December 25 as a cultural and religious celebrating around the world. Past 5 years Shanti Sadan Primary and high school which handle by trust saint Francis De Sales Education Society celebrated the Christmas festival in that they organized the different competitions for the school children's as well as village children large number of people come for celebrate the festival and children enjoy lot. After that they prepared the food for the village peoples.



Figure 2 Celebration of Christmas festival

Table 2 Festival cycle and approximate expenditure

Month	Festivals	Venue	Expenditure
January	Makar-Sankranti, Dev dongari baba yatra	Village/outside the village	2000
February	Shiv Jayanti	Village	500
March	Mahaashivratri, Holi	Village	1000
April	Ramnavmi, Dr. BabasahebAmbedkar Jayanti	Village	2500
May	MhasobaYatra	Village	500
June	RamzanEid, Vatsavriti	Village	3000
July	Aashadhi Ekadashi	Outside the village	5000
August	Rakshabandhan, Bakri Eid, Nagpanchami, Pola	Village	5000
September	Ganesh Chaturthi, mohram, Haritalika, Gauri Pujan	Village	5000
October	Dussehra, Diwali	Village	18000
November	Eid	Village	2000
December	Christmas Natal	Village	2000
<b>Total Expenditure</b>			<b>46,500</b>

### Food Pattern:

In day to day life villagers use to eat mild and spicy dishes *Jawar* (Sorghum) and *Bajari* (Pearl millet) *Bhakaries*, Wheat *Chapati*, *Aamti*, *Bhaji*, Rice, Mung bean, Vegetables and *Dal batti* etc. Sometimes people prefer goat meat, chicken and fish. During festival there is compulsory sweet dish in their food like *Puranpoli*, *Laddu*, *Gulabjamun*. During *Ganesh* festival people offering *Modak* to Lord Ganesh. *Modak* is the famous sweet dish which is made up of grated coconut and jiggery and outer shell made from wheat flour.

### Marriage

From the group discussion it is found that age of marriage for male is 24 -26 years and for female is 22-24. Mostly all marriage are arranged and in caste but now with the changing trend if both bride and groom are educated so they have full freedom to decide and have love marriage, but some of the exception cases people are not agree with that decision and lot of chaos may happen. The custom of dowry is very famous here. Even a poor family also have to pay minimum of Rs.1 lac and for the rich marriage is an expenditure of minimum Rs.6-10 lac.

### Ecological dimension

#### Natural Resources

The village is situated on the bank of River which flows from Kolhi to Borsar. The Bhangi river which is 3 Km away from village also share its water with the villagers. Both are small rivers. In summer season these 2 rivers totally dried up so villagers face too much problem for drinking as well as for agriculture.

#### Irrigation

In this Borsar village cultivation purpose farmers mainly depend on rain water but beside the rain water. They use open flood irrigation system which leads huge water wastage. Most of the farmers in the village are aware about loss but they compare with the cost of other irrigation and choose this for generations.

### Economic dimension

#### Livelihood

Village is mainly depending on agriculture activity. Nearby 44% peoples depend on agriculture and 24% peoples working as daily wage labors, 26% peoples engaged with business and 6 % peoples engaged in service or self-employment.

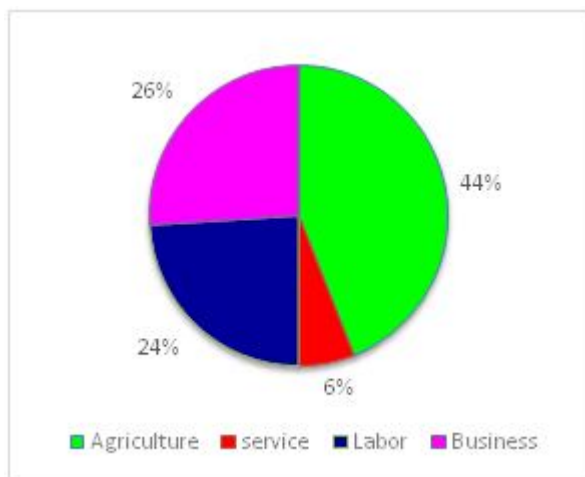


Chart 2 Livelihood Distribution

village. But most of the villagers use open defecation because of water problem also they lock their toilet.

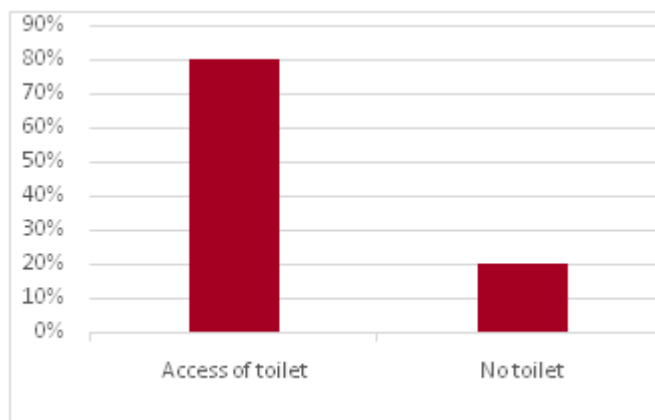


Chart 4 Access of toilet

### Housing types

As per 50 samples in Borsar village, the housing types are Concrete House (RCC) 18%, Tin + brick 56%, Wood + soil 20%, wood + brick 6%. Majority of household are kuccha household (Tin House). Recently from few year peoples start constructing pucca house. Some households are in not good condition. As we see all on one in area living in owned houses some percent living in rent houses.

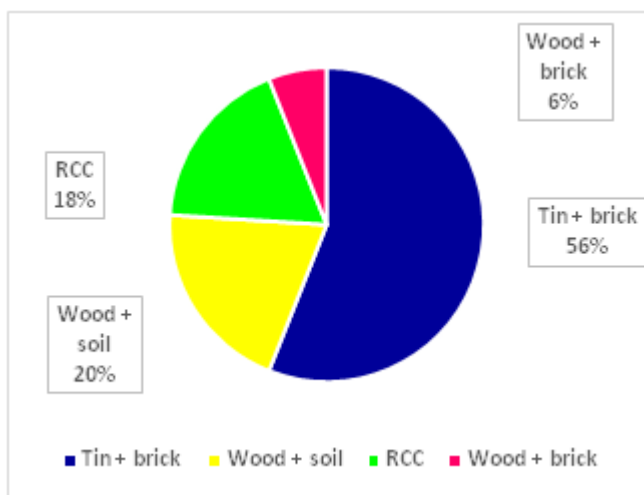


Chart 3 Housing Details

### Economic classification of the village

In the village there are five categories in which the village can be classified into the economic groups.

- Poorest of the poor (S1)** - The family is landless; the one or two members of the family is labor considered as poorest of the poor.
- Poor (S2)** - The family have few acres (1-4 acres) of land and petty shops comes under the poor.
- Middle lower (S3)** - The family have 5-10acre land or the shops. In village some of the family engaged in fish rearing.
- Middle upper-** The family have 10-15acre land with business or linked with private job comes under the upper middle-class family.
- Rich-** The family have 16-30acre land with government job or big shops.

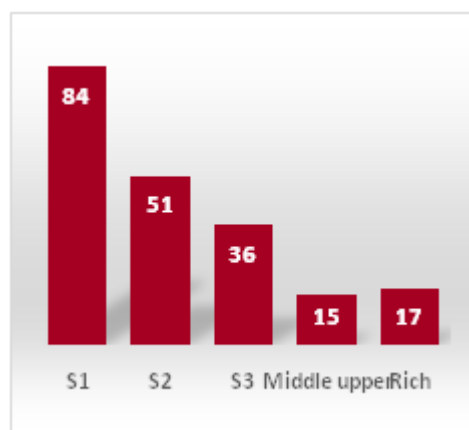


Chart 5 Economic category details

The chart shows that from 203 households there are 84 households in S1 (Poorest of the poor) category. There are

### Access of toilet in Borsar village

From 50 household survey it is found that almost 80 percent villagers use toilets in their houses but still 20 per cent villagers have not construct the toilet in their house. Before five year the toilet facility not that much good in village but during that time few awareness programs and schemes like Pradhan Mantri Gram Swachhata Yojana started in the



51 household in S2 (poor) category. There are 36 household in S3 (middle lower) category. There are 15 household in middle upper category. There are 17 household in rich category.

### Level of inequality in the village -

Lorenz curve is a graphical representation of the distribution of income or of wealth. It was developed by Max O. Lorenz in 1905 for representing inequality of the wealth distribution. The concept is useful in describing inequality among the size of individuals

From the 40 household in Borsar village, Lorenz curve shows the income inequality in Borsarvillage. Lorenz curve shows that highest income is 360000 and lowest income is 20000. In Borsar village the poorest 85% of the population have 56.94% of total income.

Gini coefficient i.e. inequality in Borsar village is 0.42.

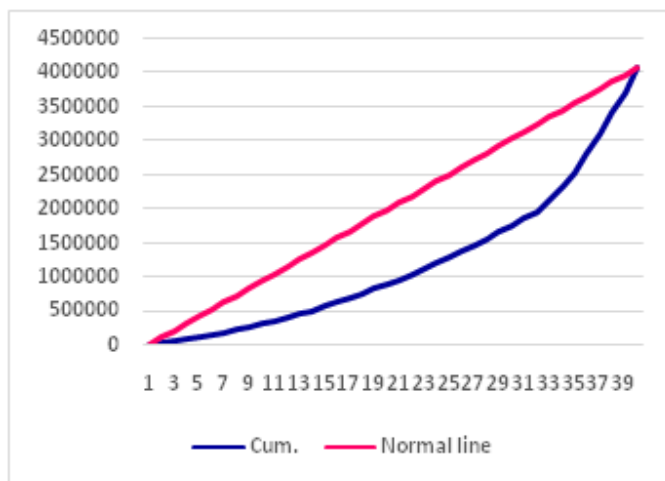


Chart 6 Lorenz curve

### 5i of poverty framework

- Income:** In Borsarvillage major livelihoods are agriculture, labor and business. From this they got income. But they wasting money by unwanted spending more mon alcohol and gambling.
- Inequality:** There is inequality between labor work for same kind of work men got Rs. 300 and women got Rs. 250. Also the area faces climatic inequality there is low rainfall happens in village so they face more water problem regarding drinking and water for agriculture.
- Illiteracy:** Because of illiteracy people are not able to ask the schemes in Gram panchayat office and not get any type of benefit.

- Ill health:** Villagers addicted by alcohol so it's directly effects on their health. 75 percent of the earnings they spend there.
- Isolation:** In both village because of less income and sometime work is not available from MGNREGA work people go to other district for sugarcane harvesting. Sugar factory is close is because of less sugarcane production in this area so more people is migrated.

### Development issues

#### Water scarcity

In Borsar village found less water for drinking as well as agriculture also. There are total 12 hand pumps. But in 3 hand pumps are usable condition, remaining hand pumps don't have water. Also, village have BorRiver but this river also dries in summer. The practices use of irrigation are also not good in village most of the farmer uses open flood irrigation method so more amount of water is waste. Environmental calamities means in this area there is less rainfall. Water is the core of sustainable development and is important for socio-economic development, food production, and healthy ecosystem and for human survival itself.

#### Waste Management

This is the major problem which leads to hazards like environmental degradation, Health factor, water pollution villagers throw the garbage's here and there. From the panchayat side nobody is coming for cleaning of these dustbin which is making the condition even worse. Villagers are not addressing this issue for them it is normal and now they are habituated with it. Even after some awareness camp done by NGO there is no change in their behavior. For them it is not their concern. It may lead to huge health issues.

#### Road structure

Roads are an important mode of transport in India. The Borsar village is nearly 5 km away from the nearest highway (Aurangabad-Nashik) Khandala. From Khandala to Village road condition is bad. So, at the time of emergency villagers face to many problems.

### IV. CONCLUSION

People living in rural area struggling to sustain in their life. The income from agriculture is not sufficient to fulfill their needs. There is major inequality in income. There is need to intervention in Agriculture sector to improve

productivity with different types of allied sector or value addition to enhance their income sources.

There are lot of agricultural labors in both villages sometimes they don't have work in village so they go outside the village for sugarcane harvesting with their family so the great loss of their kids in education.

Those is need to focus on MSRLMand DHAN kalanjiamgroups are working in the village as well as good transparency and accountability there is scope to increase linkage with bank and gave them loans.

## V. ACKNOWLEDGEMENT

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