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### **3.3.2.1 Research Paper Published in UGC Care Listed Journals**

## **A Geography Analysis of Sex Ratio: A Case Study of Nandurbar District (M.S.)**

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### **Abstract**

*Sex ratio is an important factor for determining the death rate of an any population. It is an important component of population which is demographically significant and reflect socio-economy and cultural pattern of society. Not only the demographer and the sociologist but also the policy makers, planners, researchers and the society in general are also interested to know the sex ratio and the variation in it. As per the past in census 2011 also the district has recorded a better sex ratio of 978. In the present paper an attempt has been made to throw the light on sex ratio of the study region. For this purpose sex ratio of last four decades is considered. As per 2011 census sex ratio for the district was 978.*

**Keyword :** Sex ratio, male, female, population, higher, lower.

### **STUDY REGION**

Nandurbar is one of the tribal district of Maharastra. The study area situated at north-western tip of Maharashtra state. The ancient name of the region was Rasika. The extent of study area  $21^{\circ}50'$  to  $22^{\circ}17'$  N latitude and  $73^{\circ}31'$  to  $74^{\circ}50'$  longitude. The geographical area of this district is 5034.23 Sq.km. The entire district forms the part of Tapi valley border by Satpura on north, boundary of Gujarat state on the waste district of Dhule on south M.P. and Dhule on the east. It is a part of Deccan plateau. As per 2011 census Nandurbar district population was 1648295. The study region contributes 1.63 % of total geographical area of Maharashtra state as per 2011 census. Physiographical the study region falls under the Tapi - Purna valley there is considerable

variation in relief and drainage characteristic within the study region. The district can be divided into three major groups of landforms

1. The northern Satpura ranges
2. The central Tapi river valley
3. The south offshoots of Sahyadri hills.

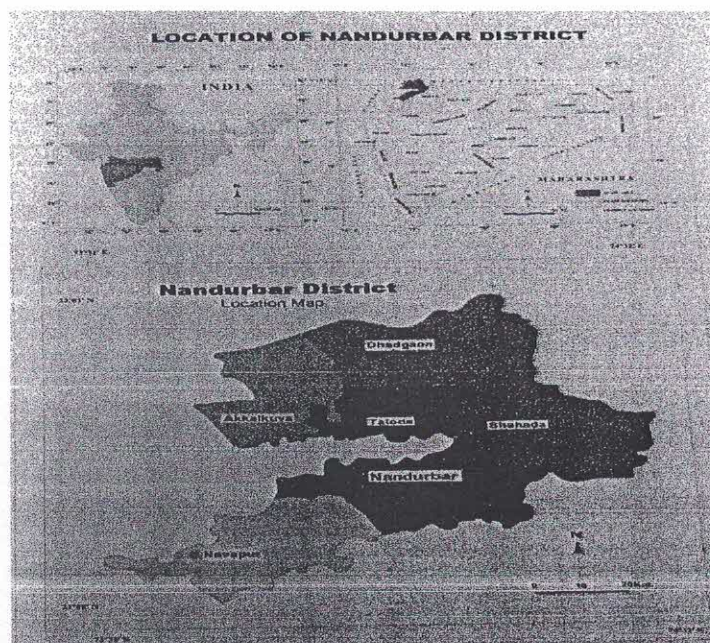
## OBJECTIVE

The main objective of the present study is to study sex ratio of this region.

## DATABASE AND METHODOLOGY

The present work is based on secondary data. The secondary data is obtained from the district census handbook of Dhule and Nandurbar district of 1981 to 2011.

For the present study data regarding is obtained from secondary data. - source i.e.Dhule and Nandurbar district census and socio-economic abstract, research, journal, reference books and articles are presented in the form of tables and figures.





## SEX RATIO

Sex ratio is important factor for determining the death of rate on any population. Women generally have lower death rate than men at age at most countries. If the females constitute more than half of the population, the total death rate is considerable affected.

Sex ratio is defined as the number of females per 1000 males, is an important social indicator to measure the extent to prevailing equality between males and females in a society at given point of time. The sex ratio indicates the relative proportion of males and females in population of sex ratio composition of population is one of the most basic aspects of all demographic characteristic. The sex ratio influences the births, deaths, marriage and economic opportunities characteristic are influenced by sex ratio. The tehsilwise sex ratio is calculated and given in the table no. 1 and fig. no.

Table no. 1

### NANDURBAR DISTRICT TAHASIL WISE SEX-RATIO

Sr. No.	Name of Tehsil	Decades			
		1981	1991	2001	2011
1	Akkalkuwa	1001	983	959	926
2	Akarani	1001	992	1008	999
3	Taloda	985	991	985	1004
4	Shahada	971	956	967	984
5	Nandurbar	966	966	967	983
6	Navapur	998	992	994	1017
	District	982	975	977	978

(Source - Census 1981, 1991, 2001 and 2011)

In the study region there is variation in the sex ratio from 1981. In every census the sex ratio of the study region is in between 975 to 982. In Akkalkuwa tehsil the sex ratio is forever lower than the district total sex ratio.

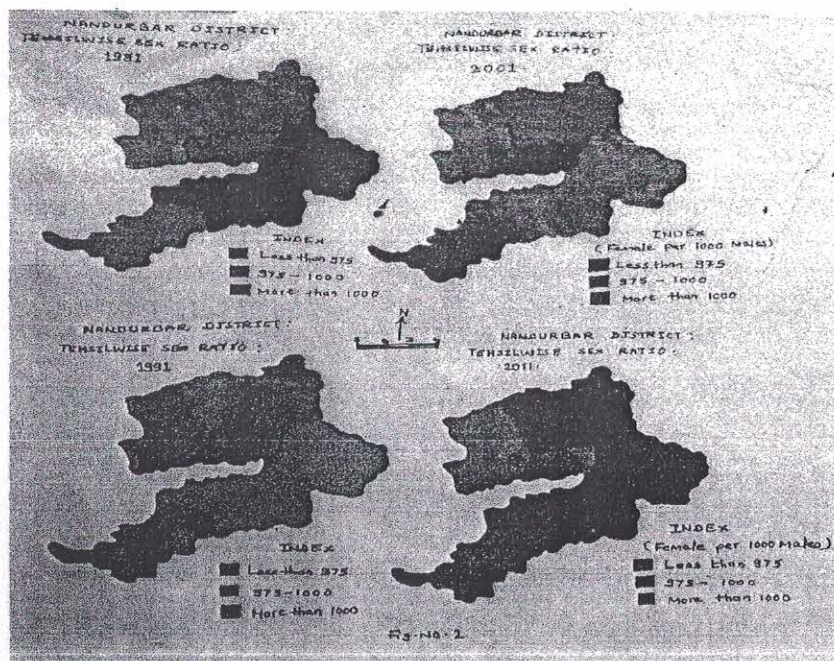
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According to the census of 1981, the average sex ratio is 982 female per thousand male. The tehsilwise sex ratio varied from 966 to 1001. This reveals that the sex ratio is unevenly distributed all over the region. One remarkable thing that the sex ratio is higher and equal in this region.

According to the census 2011, the average sex ratio is 978. The tehsilwise sex ratio varied from 926 to 1017 per thousand male. This reveals that the sex ratio is very unevenly distributed all over the region. Tehsilwise sex ratio is Akkalkuwa-926, Akrani-999, Taloda-1004, Shahada-984, Nandurbar-983 and Navapur-1017. In the tehsil Navapur (1017) is a highest sex ratio in this study region and the lowest sex ratio in Akkalkuwa tehsil (926) respectively.

Overall the statistic information between from 1981 to 2011 all four decades Navapur tehsil has highest sex ratio (1017) and Akkalkuwa tehsil is lowest sex ratio in this study region. (926)



## CONCLUSION

According to the above research, according to the census of 1981, the sex ratio of Nandurbar District was 982, but the census of 1991 the sex ratio came to 975, which is mean the sex ratio decrease by 7point in the decades. According to the 2001 and 2011 census the sex ratio of Nandurbar District is slowly increasing. In fact, according to the 2001 census, Akrani taluka has the highest sex ratio of 1008 while Nandurbar and Shahada Taluka have the same sex ratio of 967 and the lowest.

According to the census Navapur taluka has the highest sex ratio in 2011 and all talukas and district have the highest sex ratio in four decades, but akkalkuwa taluka has the lowest sex ratio in all four decades. Lack of education, malnutrition of children, consequence of social and economic situation and low literacy rate also reflected in the gender into decreased.

The ultimate effect of above mentioned reasons is shown in the improvement of sex ratio of Nandurbar district. In fact, the female rate is observed lower because the female psyche is not occupied by modern day progress in term of education.

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### **3.3.2.1 Research Paper Published in UGC Approved Journals**



## 17. A Geographical Analysis of the Sex Disparity of Literacy Population in Dhule District

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Associate Professor, HOD, Dept. of Geography, S. G. Patil Arts Science & Com College, Sakri (Dhule).

### Abstract

Education is a key factor for the rapid development of a country. It is not only the fruit of contemplation but also instrument of change. The present study deals with the decadal variation in sex disparity literacy population. It is the study of the change in male and female rate in district for the period of 1981-2011. The secondary data has been used for this study. The secondary data has been collected from the district census-handbook. The researcher used David V. Sopher (1974) disparity index for the result analysis. It is found that female literary rate is lower than that of male literary rate which ultimately result in higher disparity index. When male literary rate is lower than female literary rate that time the result is Negative disparity index. Through the study it is observed that as per census 2001 Shirpur, tehsil have the Negative disparity index (-0.404)

**Keywords** - Geographical analysis, sex disparity, literacy, population.

### Introduction

Person age of 7 years and above who achieved both skills reading & writing with understand in any language is taken as literate. A person who can only read but cannot write is not literate as a matter of convenience, literary is defined as the ability to read and write one's name is one's mother-language. In India all those persons who can both read and write a simple message with understanding in any language are classified as literate. (UNCP). The person who is engaged in secondary & tertiary activities proportion is high literate. (Ghosh 1985)

### The Study Region

The district Dhule is previously known as the west khandesh. The ancient name of this region was Rasika. The study area is triangular in shape. The study region lies between  $20^{\circ} 35'$  and  $21^{\circ} 42'$  N latitude and  $75^{\circ} 45'$  to  $75^{\circ} 15'$  East longitudes. The district is surrounded by Jalgaon district to its east, Nashik district on the south, Nandurbar district to its Western side Neemad district on its Northern side. Dhule district contributes 2.62% total geographical area of the Maharashtra state. The study region population 1.83% of total Maharashtra population. As

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per census 2011 the population of Dhule district is 20,50,862 total literate in Dhule district were 12,93,916 of which male and female 7,23,388 and 5,70,528 respectively in 2001. Average literate rate of Dhule district in 2011 were 72.86 compared to 71.65 of 2001. It things are looked out at gender wise, male & female literacy were 79.50 & 65.77 respectively for 2001 same figure stood at 81.40 and 61.39 in Dhule district.

#### DHULE DISTRICT: LOCATION

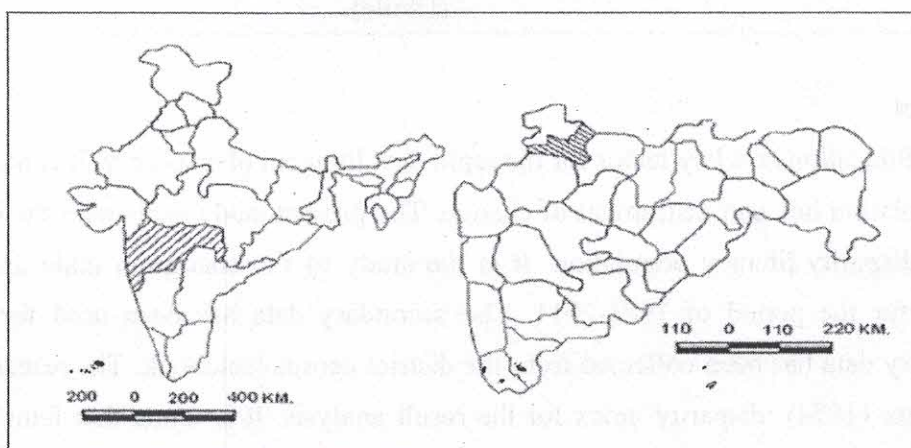
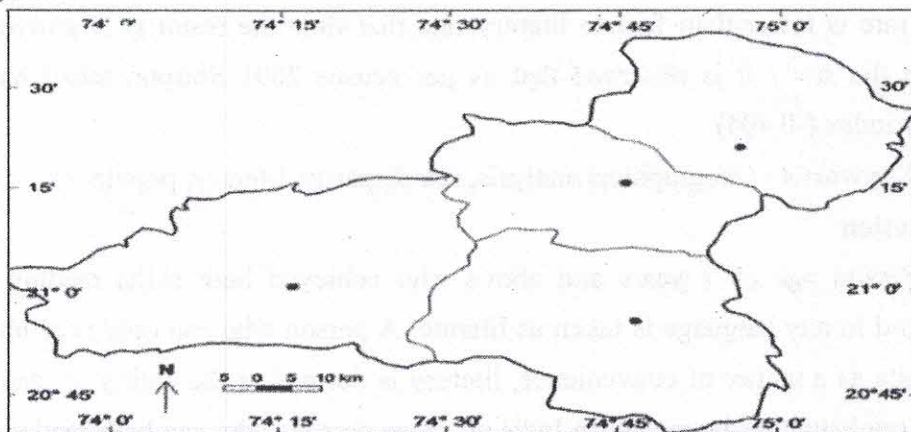


Fig.No.1



#### Objectives

The specific objectives of the present research paper are

- 1) To calculate the disparity Index of literary population In the district
- 2) To study disparity of male, female literacy population In Dhule district.
- 3) To highlight the sex disparity of gender wise literacy during 1981, 1991, 2001 & 2011.

#### Data Base & Methodology

The present study is mainly based on secondary data. The secondary data is obtained from district census hand book of Dhule district and socio- economic abstract of Dhule district. To calculate the literary rate formula will be used as given :

$$\text{Literary rate} = L/P \times 100$$

Where L= literate population

P = Total population

To measure the disparity index in male-female literacy the David V. Sopher's (1974) "Disparity Index" formula will be used as given below.

If  $X_1$  and  $X_2$  represent the respective percentage of value of variable of group 1 and 2 than the disparity Index (D) can be calculated by the formula.

$$D = \text{Log}(X_2/X_1) + \text{Log}((Q-X_1)/(Q-X_2))$$

Where  $X_2 > X_1$  and  $Q=100$

Whereas  $X_2$  = male population Literacy rate.

$X_1$  = female population Literacy rate.

### Tehasils wise literacy population rate in 1981 to 2011

Sr. No	1981					1991				2001				2011			
	Name of Tehasils	Per son	Male	Female	Disparity Index	Per son	Male	Female	Disparity Index	Per son	Male	Female	disparity	Per son	Male	Female	disparity
1	Dhule	50.07	61.44	37.88	0.493	50.0	60.80	39.20	0.381	78.1	86.8	68.8	0.473	80.60	86.13	74.77	0.318
2	Sakri	34.53	45.88	23.23	0.446	50.1	63.60	36.40	0.481	61.7	72.4	50.8	0.403	63.57	71.35	55.79	0.291
3	Shindakheda	44.40	57.53	30.34	0.489	50.0	63.04	36.96	0.466	74.0	84.8	62.7	0.519	75.41	83.04	67.40	0.373
4	Shirpur	36.45	48.08	24.43	0.387	50.0	63.84	36.17	0.493	66.3	56.0	76.3	-0.404	64.95	72.04	57.56	0.279

Source – Census of India, District census handbook of Dhule District 2001 and 2011 socio – Economic abstract of Dhule District 2011.

The disparity is Male-female literacy population rate has been grouped into three categories i.e. High, Moderate and Low disparity index.

#### 1) High Disparity Index – (above 0.400)

As per 1981 census the Dhule (0.443) sakri (0.446) and Shinkheda (0.489) tehsil have shown high disparity index. During 1991 census it is observed that sakri (0.481) Shindakheda (0.466) and Shirpur (0.493) tehsil have shown the high disparity index. Because the female literary population rate found lower which ultimately results in higher disparity index. In 2001 census, whole district the disparity index is high. However as per 2011 census the whole district



male female higher disparity index is not found. The reason behind the rising of disparity index lies in the social aspect.

## 2) Moderate Disparity Index- (0.200 to 0.400)

In 1981 census, the shirpur tehsil (0.387) and in 1991 census, Dhule tehsil (0.381) have been shown moderate disparity index. As per 2011 the whole district disparity index is moderate level. As per 2001 census in this categories disparity index is not found in the whole district.

## 3) Low Disparity Index- (Less than 0.200)

The study shows that low male – female disparity index is not found for the past four decades in the whole district. It is great sign of improving in gender literacy population rate of Dhule district.

## Conclusion

In the present paper, the researcher has found that the disparity rate of based on literacy population rate provided by the information of census 1981 to 2011 for the past four decades. It is observed that if the male literacy rate is increase then disparity index is decreased when the female literacy population rate is increased then disparity index is Negative. It is observed that as per census 2001, the Shirpur tehsils male literacy percentage is 56.0 & female percentage is 76.3. that time the disparity index is Negative (-0.404)

As per 2011 census the whole Dhule district in low male–female disparity index is not found for the past four decades. It is great sign of improving in gender literacy population rate of Dhule district.

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## Sustainable development perspective for tribal women

**MM Saindane**

### Abstract

Researcher emphasize in this paper sustainable development perspective for tribal women in Nandurbar district (M.S.). The study region is tribal area. Because of the high proportion of tribal population in Nandurbar district of tribal region. According to census of 2001, the proportion of scheduled tribe population is 65.50 percent. The major tribes in this region are Bhills, Kokani and Pawaras. The paper consist primary and secondary data analysis. In tribal community the place of the women is very lower as compare to other communities. Tribal women depend upon they cheap wage labour and forest timber because of not being sufficient agricultural production.

**Keywords:** Sustainable Development, Tribal Women

### 1. Introduction

United Nations Organization has commissioned a world commission on Environment and development in the year 1987 in view to be thought on Environment and development. The commission has prepared report titled as "Our Common Future" in which the concept of sustainable development is put forwarded.

As per its definition "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The welfare oriented progress of the human generations to come is known as sustainable development. That means sustainable development promotes the idea that social, Environmental and economic progress can be achieved within the limits Earth's natural resource.

### 2. Objectives

The main objective of the present study are to study the economical aspects of tribal women through the criteria of population, sex ratio, literacy of women, health, education, and employment.

### 3. Hypothesis

Tribal women in Nandurbar district is observed economically weak and sustainably undeveloped.

### 4. Database and Methodology

The present study work is carried out by using following methodology.

Number and percentage of population, sex ratio, literacy, worker, medical and educational amenities in Tehasil, 2001.

#### 4.1 The study region

Nandurbar is one of the tribal district of Maharashtra. The study area situated on north-western tip of Maharashtra state. The extent of study area  $20^{\circ} 50'$  to  $22^{\circ} 17'$  N latitudes and  $73^{\circ} 30'$  to  $74^{\circ} 50'$  east longitudes. The geographical area of the districts 5034.23 sq km. It is part of Deccan plateau.

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## LOCATION OF NANDURBAR DISTRICT

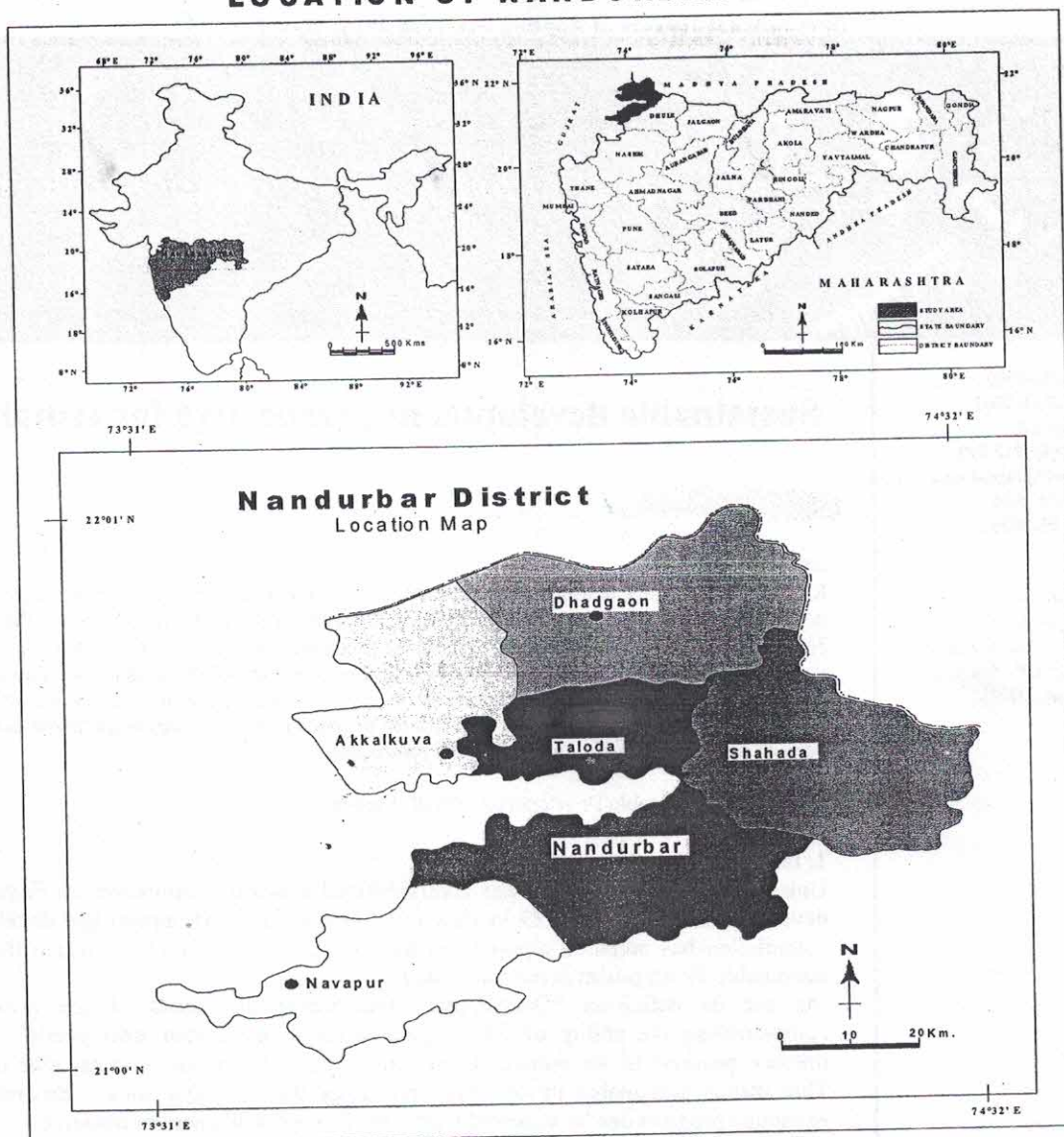


Fig 1: Location map of Nandurbar district.

### 5. Result and Discussion

According to census 2001, Nandurbar district has 65.50% tribal population of the total population. It includes tribal communities such as Bhil, Kokani and Pawara. 74.70% tribal population is situated in rural area. Nandurbar district has highest density of tribal population.

Table 1: Percentage of tribal population in Nandurbar district.

Name of Tehsil	% of ST Population	Sex Ratio	Female Literacy	% of Worker	% of Medical Facilities	% of Education Facilities
Akkalkuwa	84.8	1021	28.5	56.6	23.4	96.9
Akrani	95.0	1013	34.0	58.3	14.1	98.2
Taloda	72.3	1006	33.7	58.0	23.9	98.9
Shahada	48.6	998	24.5	63.9	48.6	98.3
Nandurbar	40.8	1022	31.5	62.9	28.7	98.7
Navapur	84.9	1008	37.5	50.3	24.2	100
District	65.50	1011	31.7	59.0	27.7	98.4

Source: Nandurbar District census handbook 2001

As the census reported the district has the sex ratio of 1011. but it has lowest literacy rate i.e. 31.7%. The ratio of tribal women non-worker is found 59% and the medical facility ratio is 27.7%, education facilities are in sound position i.e. 98.4%.

Actually Akkalkuwa, Akrani, and Navapur all three tehsils are considered as most dense & remote area still they have good ratio of educational amenities i.e. 96.9, 98.2, and 100% respectively. But it is not reflected in the increasing of literacy rates of these tehsils. Akkalkuwa, Akrani and

Navapur has literacy rate about 28.5, 34.0 and 37.5% respectively. Due to the weak medical facilities, the health status of the tribal population is observed very poor.

As per the primary data collected by interview, the people are observed unaware about the welfare schemes of Government such as crop loan, Gharkul yojana, agricultural equipment provision schemes etc. This scheme has poor utilization in this area which is reflected in their poor standard of living. Sustainable development through the various schemes is miles far to reach. It is not translated into reality.

#### 6. Conclusion

Tribal community is economical backward community. Particularly tribal woman is far behind as compare to women belong to other communities. Various social welfare and development schemes sponsored by Government of India is implemented very slowly in this region Particularly in tribal area. Today the tribal women is in real sense starved economically. Regular assessment of these schemes is needed for the welfare of tribal women, sustainably.

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# **A Geographical Analysis of Sustainable Tourism: A Case Study in Sakri Tehsil of District Dhule**

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## **Abstract :**

Tourism has become a major economic occupation of human being in the late 20th century. Therefore, it is contributing a lot to the development of tourism in both developed and developing countries.

In particular, the growing popularity of tourism due to industrialization, living standards dissemination of education, agriculture development, historical tourist destination and adventure tourism destination and the growing interest in tourism change among the people. Therefore, the economy of some countries is dependent on tourism.

Although tourism is a lucrative business, it is related to the socio-historical and culture situation. The research paper collected information on sustainable tourism in Sakri taluka of Dhule district. From this, it can be seen that agro-tourism, historical forts and Kondaibari and Charan mal forest are the adventure sustainable tourist destination due to agro-development.

## **Introduction:**

According to the fact that tourism has become a major economic occupation of human beings, different types of tourism, reason for tourism, purpose of tourism, problem of tourism, various places to attract tourism and various factors, employment generated by tourism changing social and economic condition. Different local accommodation, recreational facilities, shopping location general transportation use etc. can be studied due to this sustainable tourism.

Sustainable tourism is without degradation the element of nature. It means sustainable tourism. that is tourism done with favorable responsibility

In sustainable tourism, tourists visit a particular place for a specific purpose. This has a positive impact on the society, the environment and the economy. This leads to the development of sustainable tourism. In recent time, sustainable tourism includes agro-tourism, heritage-tourism and adventure tourism.

## **Study Region:**

Sakri taluka is one of the largest talukas per area in Maharashtra. It has highest number of villages (225) than all other talukas in Maharashtra state; it is part of in the Western Ghats. 35.27% of taluka is forested. National Highway-6 (Asian highway 46) is major

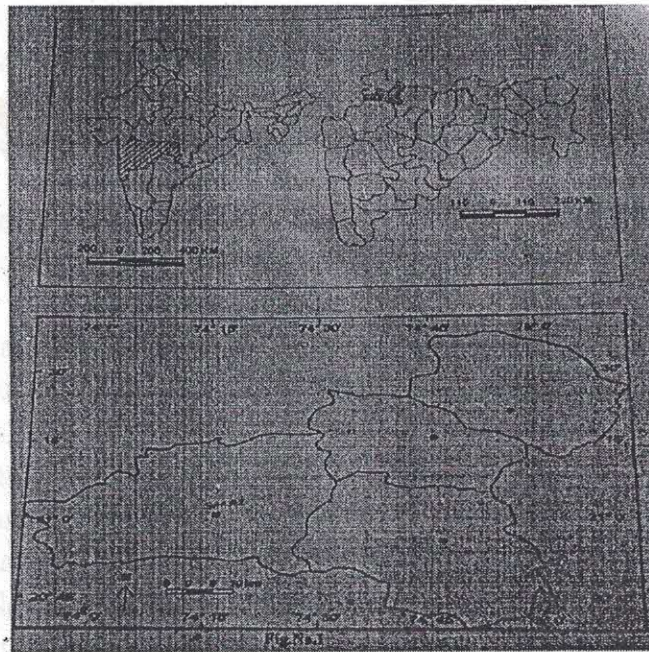
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highway in the taluka. The tehsil is located  $73^{\circ}56'$  to  $74^{\circ}36'E$  longitudes and  $20^{\circ}50'$  to  $21^{\circ}08'N$  latitude. The tehsil has total area is 2416.11 Sq km.

It is divided in to four regions by local people: 1. Malmatha region 2. Panzara-kan region 3. Katvan region 4. Kokan region

### LOCATION MAP: SAKRI TALUKA



The entire tahasil a part of western ghat bordered by Shinkheda and Nandurbar tehsil in north, Satana and Malegoan in south, tehsil of Dhule in East and Navapur tehsil in west. In the Sakri taluka there is the world's largest solar project in Shivaji nagar village. Also there is Asia's largest wind mills projects run by Suzlon company near Chhadvel korde and Nijampur village. In this region may tribe live in kokni, mavachi, bhill and vanjari.

### Objectives:

There are three main objectives of present study as follow;

1. To find sustainable tourist destinations.
2. To study sustainable tourist destination.
3. To study the positive effects on social, environment and economy.

### Database and Research Methodology:

The research paper collects information from primary and secondary sources. Visiting various sustainable tourist destinations and collecting information from people there. Information is collect with the help of research journal, article, reference book and the web.

### Sustainable Tourism:

Sustainable tourism is the concept of visiting somewhere as a tourist and trying to make a positive impact on environment, society and economy.

Miz



**Agro-Tourism:**

Agri-tourism is a new concept in sustainable tourism. This including extracting vegetables fruits, honey getting information about the crops in the field, looking at how they are harvested etc, how fun it is for children to pick fruit by there own and eat. Tourism is done for these things this is called agro-tourism. Agro-tourism in Maharashtra was developed at morachi chincholi in Shirpur taluka and Baramati in pune district. In sustainable tourism in Sakri taluka there are two places of agro-tourism 1.Baripada 2.Kalgoan.

**Baripada:**

:A deserted village before 1992, deserted malran, no drop of water in the well, no green leaves up to the hillside, no crops in the field, no food for stomach, uninhabited settlement, dutiful hands in another's field, this result in village observation addiction the condition of Baripada village is full of strife, unhygienic condition, alienation and object poverty. But Mr. Chaitram Devachand Pawar (M.Com) despite the opportunity of the servant, this young man created a project on 1100 acres of land. As result, the trees in the forest were protected. As a result, 42 species of bird were introduced. Many animals got the right forest. 50 years of fuel problem solved. There was a significant increase in the production of supplement in the forest. With the help of the villagers for the establishment of the water, over 300 stone dams, digging of flat ditches etc. The water levels of all the walls in the villages has increase, soil erosion has stopped, soil fertility has increased, Today there are 16 small and big seepage lake supplies. The 10 acres horticulture area reached 120 acres today. Mountain fourth hills grew rapidly under took a million production project, as well as beekeeping project. It produces a large amount of honey. 230 boxes of honey. The third project is the production of organic jaggery. Chemical free Nutrition jaggery started to be produce in the village. It produces gas and electricity from the bottom of Moha. All of this has had profound social, environmental and economic impact on a young person. Today the village has received awards from the International organization fund for agricultural development Rome, Italy. There have been many small and big holds a forest festival every year. Agricultural officer, collector are present paddy planting camps are held at this place.

**Kalgoan:**

In the village of Kalgoan, 22 km from Sakri town, Mr. Sanjay Nimba Bhamare, with help of various Japanese techniques, brought about a great improvement in agriculture. This is because pomegranates, grapes, custard apple and cannabis pods, fruits are produced in large quantities in an improved manner with the help of organic fertilizers, substances and nitrogen. Grape and pomegranates are exported aboard. Mr. Bhamre has been honored with "Krishi Bhushan Award" by the Government of Maharashtra. He has also received the "Adarsh Shetkari" Award from Sayadri Channel.



He is currently the Director of the Indian Pomegranates Research Center. Under Jal Shikar yojana, water is stored in small nallas by digging 10 feet deep pits. As a result the ground water level of farm and village wells increased. As a result farmer agricultural officers, district collectors, and students from agricultural college come to study and learn. This means that about 30 families have been provided employment and agricultural official take information from them regarding crop insurance.

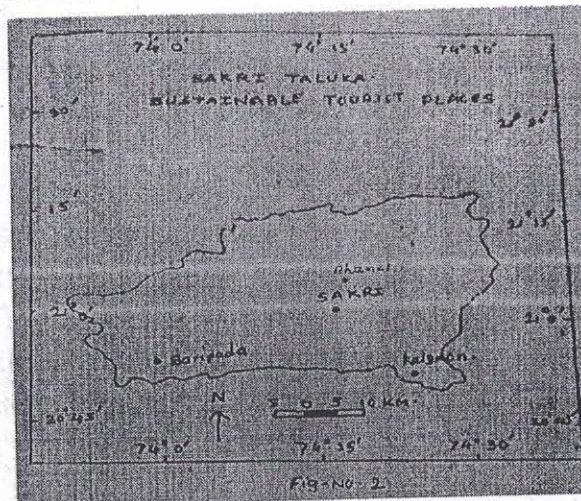
### Heritage Tourism:

Heritage tourism aims at historically famous places where historical events have taken place. Bhamburda fort is at a distance 13 km from Sakri. Its height is 2500 m above sea level. This fort is also known as the capital of Ahir Raja. The fort is fortified on three sides and has an entrance in front. There are 184 caves on this fort. There is a water tank and a small temple on the plateau of this fort. In 1818 the British defeated the Marathas and captured this fort. It is recorded that Captain Briggs destroyed the important buildings on this fort and destroyed Kalekhan. It can be said to be a sustainable tourist destination.

### Kondaibari:

Kondaibar forest is home to a plant called kudu. Hence this decline is called kudabari. Later, the word gradually becomes a corruption of Kondaibari. Hence this ghat is called Kondaibari. On either side are high mountain ranges and a deep ravine between them. Many medicinal plants are found in this forest. The local farmer, Maharaj, Baghat Bohari and vaidu make medicines by studying the plant characteristics of this forest. The forest is dense and green vegetation is found. This forest is especially rich in Mahua trees. They are used as a side business. Palm trees are found in large number in this forest. They are used to make foliage. Also flowers are used by tribal people to make syrup. The syrup is used as a medicine for burning of wool. In this rainy season, a stream flows. In this forest, students, practitioners, rabbits organize trips to find medicine plants walk in the forest an experience trekking.

## SUSTAINABLE TOURIST DESTINATION : SAKRI TALUKA



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### Conclusion:

In this research paper Agro-tourism, historical tourism and adventure tourism places were discovered in Sakri taluka. After studying them their results were seen to be socially, environmentally and economically positive. If the sustainable tourist destinations are developed in this study region a large number of scholar and researcher will visit. Creating a seepage lake on the nala in Kondaibari ghat can create a good adventure and sustainable tourism in the study region. You can see the green forest. Due to this sustainable tourism, some people got employment and agriculture became a side business.

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## "ऊस पिकांसाठी आसाभोवती सिंचन पद्धत आणि कृषी विकास" "Pivot Irrigation for sugarcane and Agricultural Development"

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### सारांश :

मानवी संस्कृतीच्या विकासात शेतीला अनन्य साधारण महत्त्व आहे. फार प्राचीन काळा पासून जलसिंचनाचा वापर केला जात आहे. सुमारे ५ हजार वर्षा पुर्वीपासून मेसोपोटोमीया, मोहेनजोदडो व हडप्पा या प्राचिन संस्कृतीमध्ये जलसिंचनाचा पुरावा आढळतो. परंतु त्यावेळी पारंपारिक पद्धतीने सिंचन योजनेचा उल्लेख आहे. आज सुधारीत किंवा आधुनिक सिंचन पद्धतीचा वापर केला जातो. हे सिंचन प्रकार शेतीसाठी अत्यंत उपयुक्त ठरले आहेत. त्यात प्रामुख्याने तुषार सिंचन (Sprinkler Irrigation) आणि ठिबक सिंचन (Drip Irrigation) पद्धत होय. ठिबक सिंचन हे पॉलीथिनच्या नळ्याने व्दारे पिकांना थेंबाथेंबाने पाणी दिले जाते. परंतु ऊस सारख्या उच्च पिकांना हे कुचकामी ठरते. कारण उन्हाळ्यात तापमान जास्त असते. अशा या पिकास पाणी भरपूर लागते. म्हणून आधुनिक सिंचन प्रकारानुसार आसाभोवती सिंचन पद्धत या पिकास उपयुक्त ठरू शकते. कारण यामुळे तापमान नियंत्रीत राहून, पाण्याचे वितरण, नियोजन, मजूर वर्गाची बचत व उत्पन्न वाढण्यास मदत होते.

### Key Words :

आसाभोवती सिंचन (Pivot Irrigation), तंत्रज्ञान (Technology), लागवड (Cultivation), उत्पादन (Production), कृषी विकास (Agricultural Development).

### प्रस्तावना (Introduction) :

आज जगात आसाभोवती सिंचन पद्धत ११० देशात वापरली जाते. त्यात प्रामुख्याने यु. एस., आस्ट्रेलिया, न्युझीलँड, आणि ब्राझील इत्यादी ही आधुनिक सिंचन पद्धत १९४० मध्ये स्टॉबर्ग, कोलोरेडो येथील शेतकरी फ्रँक झेबच (Frank zybach) यांनी शोधून काढली. ही एक आधुनिक आसाभोवती तुषार सिंचन पद्धत होय. या पद्धतीमुळे पाण्याच्या वितरणात व नियोजनात सुधारणा झाली आहे. या सिंचन पद्धतीत आस सधारणतः १६०० फुट किंवा ५०० मी लांबीचा असून त्यावर अनेक पाईप किंवा भाग स्टील (अल्युमिनीयम) नळ्यांनी जोडलेले असतात. या आसाच्या दोन्ही बाजूस टॉवर असून ती फिरती आहेत. जागतीक एकूण कृषी उत्पादनापैकी २५ टक्के उत्पादन या सिंचन पद्धतीमुळे होते. जागतिक एकूण उत्पन्नपैकी १.९ बिलियन मेट्रीक टन उत्पन्न यातून होते. पारंपारिक मोकाट (Flood Irrigation) पाणी देणे या पद्धतीपेक्षा ५० टक्के पाणीची बचत होते व ३० ते ५० टक्के उत्पन्नात वाढ होते.

### उद्देश (Objective) :

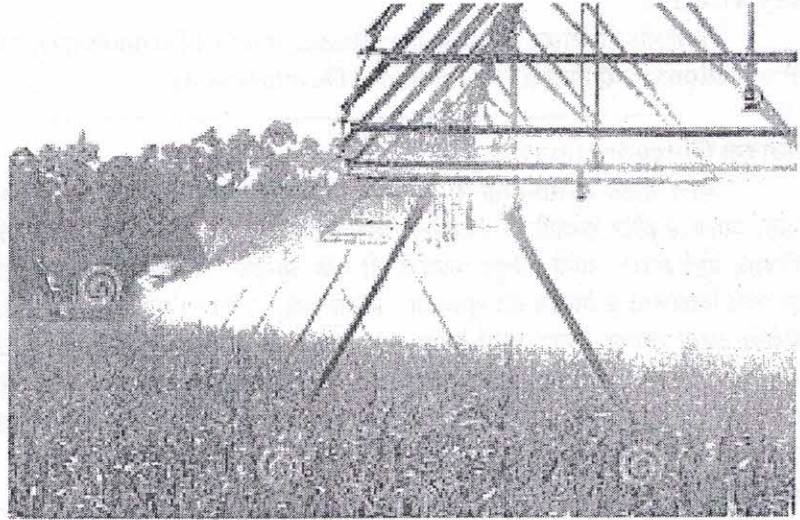
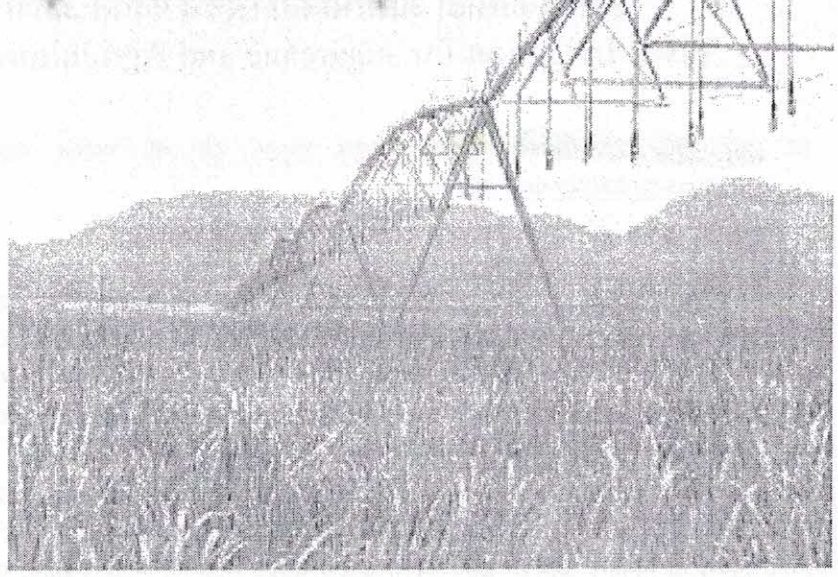
आसाभोवती सिंचन योजनेचा ऊस पिकांसाठी अभ्यास करणे.

### आसाभोवती सिंचन तंत्र (Pivot Irrigation Technology) :

ही आधुनिक सिंचन पद्धत असून वेगवेगळ्या हवामान स्थितीत व भूपृष्ठ रचना यातही वापरली जाते. साधारणतः भूपृष्ठ रचनेचा उतार १०° ते १५° प्रदेशातही वापरता येते. यात तीन प्रकारे सिंचन करता येते. आयताकृती पद्धतीत साधारणतः २ एकरापेक्षा कमी तर लॅटेरल पद्धतीत १०० एकर पेक्षा जास्त आणि गोलाकार (कॉर्नर) पद्धत वापरली जाते. साधारणतः एक आस असून त्यात अनेक भाग केलेले असतात. आसाभोवती अल्युमिनीयमचे अनेक पाईप जोडून खाली नोझल बसविलेले असतात. सौर उर्जेच्या सहाय्याने किंवा विद्युत मोटारीच्या सहाय्याने पाण्याच्या पंपास दाब देवून आसाभोवती सर्व भागांना पाणी वितरण होऊन फवाऱ्याच्या रूपाने बाहेर पडते. हा फवारा सर्व बाजूला उडतो व पिकांवर आणि जमिनीवर पाऊस प्रमाणे पाणी पडते. त्यामुळे उन्हाळ्यात तापमान कमी होण्यास मदत होते.

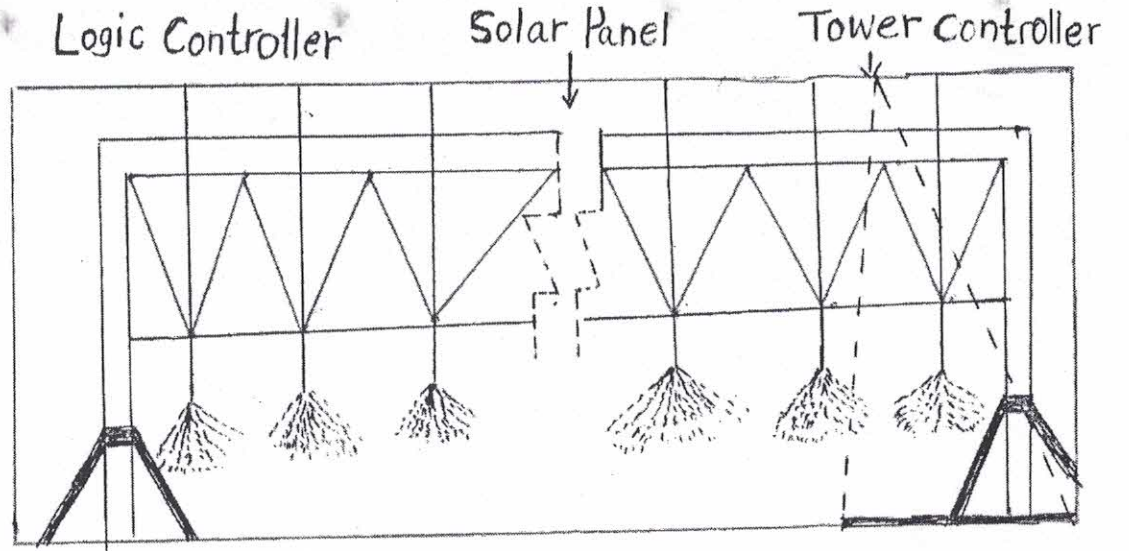
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**सिंचन अभ्यास पद्धतीचे फायदे व कृषी विकास :**

- १) या आधुनिक सिंचन पद्धतीमुळे दर हेक्टर मागे १५४ टन एवढे उत्पादन होऊ शकते.
- २) या सिंचन पद्धतीमुळे पाण्याचे समतोल वितरण व ५० टक्के पाण्याची बचत होते.
- ३) या सिंचन पद्धतीमुळे श्रमशक्तीची व वेळेची (Time) बचत होते.
- ४) या सिंचन पद्धतीमुळे रासायनिक फर्टीलायझर यांचा वापर पाण्याच्या माध्यमाद्वारे दिले जाते. त्यामुळे वरील घटकांची बचत होते.
- ५) या पद्धतीमध्ये मजूर खर्च (Labour Coast) कमी येऊन बचत होते.
- ६) या सिंचन पद्धतीमुळे पाण्याची बचत होऊन ३० ते ५० टक्के उत्पादनात वाढ होते.
- ७) ही आर्थिक फायद्याची आधुनिक पद्धत आहे.



**निष्कर्ष :**

आज महाराष्ट्रात ११ लक्ष हेक्टर जमीन ऊस पिकाखाली आहे. विशेषतः पश्चिम महाराष्ट्रातील शेतकरी सदन असून या सिंचन पद्धतीचा वापर केल्यास उत्पादनात वाढ होऊन शेतकऱ्यास आर्थिक फायदा नक्कीच होऊ शकेल आणि राज्याच्या कृषी विकासाला हातभार लागेल.

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# Forest Management and Water Management “: A Case Study in Baripada, taluka Sakri Dist. Dhule

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## Abstract

The concept of resource management is very important in today's world. Resources are extremely important in human life. Because of the daily wood chopping, urbanization, shifting cultivation, carelessness and lack of planning etc. Resources are being depleted due to various reasons; this includes forest resources or water resources.

In the present research paper, Baripada is tribal pada in sakri taluka. Under the guidance of shri. Chaitram Pawar, a study has been done on the excellent management of forest and water resources in the environment by creating awareness among the local people.

**Keywords:** Concept Management, Water Management, Forest Management, Deforestation, Desertification, Urbanization.

## Introduction

Humans have been dependent on the environment since ancient time so humans had a very close relationship with the environment. Trying to unravel the mystery of nature, there was a belief that we can change the environment beyond any limit that was the human understanding. This includes deforestation, Desertification, Urbanization etc. In the name of development excessive of water, Soil erosion about information due to incomplete information of environmental studies. Therefore the study of environment has become more necessary and necessary than ever before, so the study of forest management and water management has become necessary.

## Study Area

Baripada a remote forest in Sakri taluka of Dhule district Baripada is located on the border of Dhule, Nashik and Dang districts.

## Objective of the Study

1. To discover and study forest management techniques.
2. To know and study how water management is done.

## Hypothesis

To find out what forest management techniques are used under the guidance of Shri. Chaitram Pawar and with the help of local people.

## Research Methodology

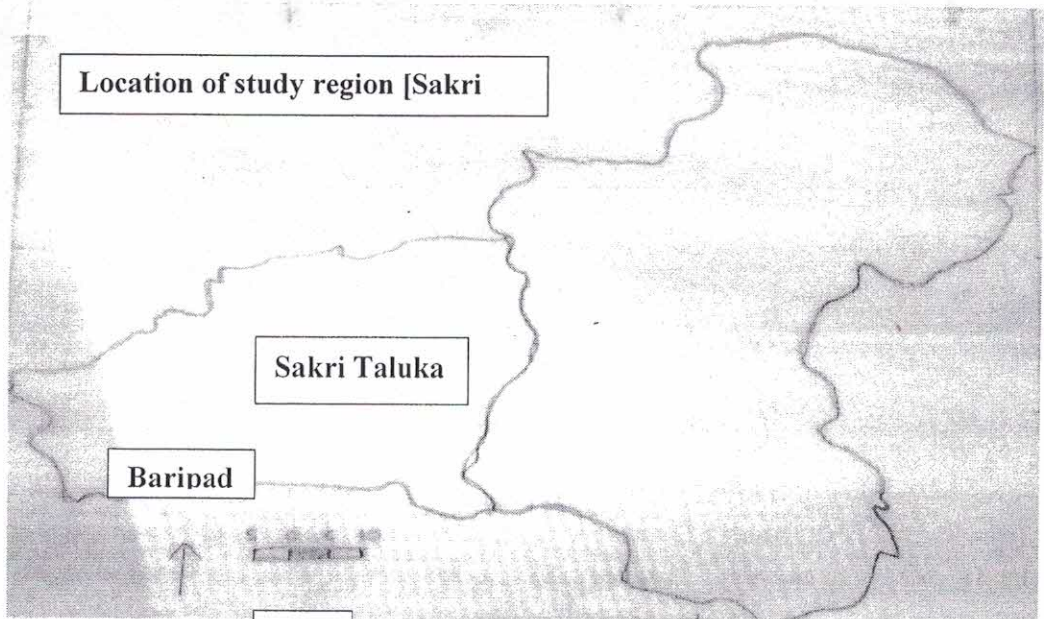
The primary and secondary information is considered in the present research paper.

A deserted village before 1992, in the desert malran, There is not a drop of water in the well, there is no address for green tree up to the hillside, there is no crop in agriculture, and crops do not have water we had to depend on the neighboring village for drinking water. In the village illiteracy addiction family strife, Uncleanliness, Distance between people and terrible poverty. Such in the condition of this village.



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Today, however the project seems to have changed. Shri. Chaitram Pawar was the first post graduate in the village. There is a job opportunity and this job is not accepted. Because they had a mindset to work differently. This person belongs to an illiterate person in the village forest and water management with the help of intellect and hard work. Baripada is a prime ex. Baripada has 94 houses, 713 population. This project was built on 1100 acres of land.

#### Analysis of Forest Management

Forest is an integral part of tribal life. Since 1990, the village of Baripada has undertaken of the forest conservation through public participation. The axe ban and grazing ban were given priority for this a local forest Ranger was formed. Women were also given priority in this committee. The rules were made. It was a bold decision to implement it from his own home.

They follow the rules:

1. Cutting down a green tree in the forest will be penalized.
2. Bullock carts are strictly prohibited in the forest
3. It is forbidden to cut wood for the forest.
4. It caught stealing a reward will be given.
5. For firewood, once a year a dried tree is cut down and wood is brought to the head.

A fine of Rs 1051 especially if you found cutting down tree. A fine of Rs 751 will be levied for taking a bullock cart through the forest. A fine of Rs 551 is found for breaking and entering, A variety of such fine were imposed. The result was that the tree are in the forest were protected and the chirping of 42 kinds of birds began to be heard. The 50 year old fuel problem of the village has been solved. Deforestation led to a significant increase in supplementary production. For example wax, honey, forest medicine plants etc.

#### Analysis of Water Management

The people of this village dug 20 feet long

have been constructed by the villagers. Dug flat variables in a row. As the result the water level of the wells in the village increased. Soil erosion is stopped and soil fertility increase. In 1984 the government of Maharashtra has constructed 1 seep pond but today there are big seep lake and 13 small seep ponds for a total of 16 seep lakes. With the participation of the people some cement concrete and some stone das were constructed.

Effective water management has been achieved through this public participation. As result the water level of the wells in the village increased. Today the village supplies water to five villages. Horticulture area increased from 10 acres to 120 acres.

#### Conclusion

The 450 hectares of deforested forest was restoring. The 50 years old fuel problems of the villages has been solved. The ground water level of the wells increased and the villages became self sufficient in drinking water. The village got its own identity. The concept of education and health took root. A sense of co-operation was created in the village and any festivals are celebrated collectively.

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## A Study of Migration of Families from Affected Villages in Nandurbar District Due to Sardar Sarovar Project

By

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### Abstract:

*Many small, medium, large and multinational project in India are built for irrigation, hydropower and flood control. The dam brought land under irrigation but many villages were submerged due to this reservoir as a result, the villages lost their homes, social ties and their own hands. So, it was time for a forced migration. In the present research paper, a total 33 villages in Akkalkuwa and Akrani taluka of Nandurbar district have been affected due to this project and their migration has been studied.*

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### Study area:

Nine village Akkalkuwa taluka of Nandurbar district and 24 affected villages in Akrani taluka have been studied.

### Objective:

To study the migration of families from villages affected by sardar sarovar project.

### Hypothesis:

To study the migration families of Akkalkuwa and Akrani talukas of Nandurbar district due to sardar sarovar project.

### Database and Research methodology:

Primary and secondary information has been used for the present study. Support has been obtained through direct interviews with the Narmada development department, Nandurbar and direct rehabilitation of people from the villages.

Sardar sarovar project is done according to Narmada water dispute. Due to construction of sardar sarovar project 9 villages of Akkalkuwa and 24 villages of Akrani taluka total 33 villages of Nandurbar district of Maharashtra state are being affected families are 4227 out of which 1488 are land owners 714 are landless and 1925 are major son and daughters.

Due to this project Akkalkuwa taluka Manibeli, Dhankedi, Chimalkhadi, Sinduri, Danel, Gaman, Mndawa, so in Akrani tehasil paula Pimaplekhop, Shelgada, Junavane, Khardi, Mal, Bilgaon, Sauarya, Bhusha, Sadari, Warwali Udadya, Bhadal, Surung Roshanmal BK Chinchkhedi, etc.



Table No :1

Current status of family migration in affected villages in Nandurbar district.

## 1. Akkalkuwa Tehsil

Sr. No	Location code	Affected villages	PAE's	No of Rehabilittee			No of remaining PAF's to be rehabilitation
				Guj	Mah	Total	
1	01	Manibeli	225	203	00	203	52
2	02	Dhankhedi	112	78	07	85	27
3	03	Chimalkhadi	220	70	55	125	95
4	04	Sinduri	249	110	62	172	77
5	05	Bamani	270	01	136	137	133
6	07	Mukhadi	204	03	122	125	79
7	06	Danel	437	09	212	221	216
8	08	Gaman	130	47	38	85	45
9	28	Mandawa	29	00	14	14	15

## 2. Akrani Tehsil

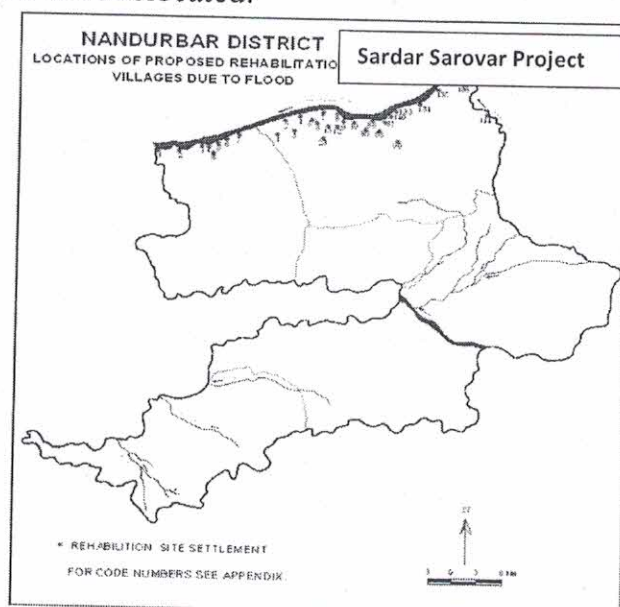
Sr. No	Location code	Affected villages	PAE's	No of Rehabilitated			No of remaining PAF's to be rehabilitation
				Guj	Mah	Total	
1	01	Paula	128	21	94	115	13
2	03	Pimapkhop	125	11	102	113	12
3	02	Shelgada	44	00	29	29	15
4	04	Atti	83	00	60	60	23
5	05	Keli	44	00	36	36	08
6	06	Thuwani	51	00	38	38	13
7	07	Bharad	221	45	161	206	15
8	08	Shikka	195	70	95	165	30
9	12	Domkhedi	188	00	175	175	13
10	09	Nimgavhan	156	00	154	154	02
11	85	Shelda	104	25	76	101	03
12	86	Junavane	113	00	98	98	15
13	87	Khardi	02	00	02	02	00
14	88	Mal	00	00	00	00	00
15	90	Bilgoan	28	00	14	14	14



16	144	Sawarya	62	00	50	50	12
17	140	Bhusha	307	34	268	302	05
18	134	Sadri	102	00	89	89	13
19	133	Warwali	72	00	65	65	07
20	135	Udadya	51	05	32	37	14
21	136	Bhadal	129	25	14	39	90
22	10	Surung	61	00	44	44	17
23	21	Roshanmal{BK}	41	00	40	40	01
24	13	Chinchkhedi	14	00	09	09	05

Source: Note on Sardar Sarovar Project, Nandurbar

In this table shows that the total number of affected families is 4227 out of 2391 {56.6%} in Maharashtra and 757 families {17.9%} migrate in state of Gujarat 1079 families {24.5} are yet to be relocated.



### Conclusion:

The following finding appear in this research paper.

1. The project has affected a total of 33 villages including 9 in Akkalkuwa taluka and 24 in Akrani taluka in Nandurbar district and total includes 4227 families.
2. Out of 1906 affected families in Akkalkuwa taluka 646 families have migrated to Maharashtra and 521 affected families have migrate to Gujarat due to this project. This shows 33.9% migration in Maharashtra and 27.3% Gujarat. There are still 38.8 migration to be made.
3. Due to this project out of 2321 affected families in Akrani taluka 1745 {75.2%} affected families have migrated to Maharashtra and 236 affected families {10.16%} to Gujarat state. There are 340 affected families to be relocated.

4. Considering the total migration 56.6 families have migrated in Maharashtra and 25.5 in Gujarat. There are still 25.5 affected families to be migrated. The actual project is in the state of Gujarat and a large amount of migration has reached the state of Maharashtra.
5. It is safe to say that the above migration is voluntary and compulsory, as can be seen from the interview of the people there.

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## Impact of Slope on Distribution of Rural Settlement of Nandurbar District By

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### ABSTRACT

*An attempt has been made in this paper to study slope and settlement distribution of Nandurbar district. The study area is concern the ranges of Satpura and Sahyadri Hills. The present relationship is chiefly based on topographic Map and support by the field observation of the study area. Slope is main constraint against the development of settlements. The distribution of settlements is mainly governed by slope. To understand the distributional pattern of settlements and their relationship with slope have been calculated. For the analysis of slope and topography of the study area, contour pattern, spot height, Bench Mark, trigonometric height, provide a significant tool. The toposheet of the study area 1:50,000 scales with contour interval of 20 Meter has been considered.*

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### INTRODUCTION:

Physical, cultural and economic factors affect the location, types, size, spacing and place names of settlement. Therefore, it is necessary to study how these factors influence on settlement of particular district. Physical factors are much more important particularly include Physiography, Soil, Climate and Drainage. These factors are more important than economic and cultural factors.

The study region is a part of northwestern Maharashtra. It contributes 1.63% total geographical area of the state. The district of Nandurbar comes into existence on July 1<sup>st</sup> 1998 by dividing the erstwhile district of Dhule. The study area forms distinct geographical units as it is occupied by Satpura ranges in the north and Sahyadri hills in the south. The extent of study area 21°0' to 22°0' N. Latitudes and 73°31' to 74°32' E longitudes. The total area of the district 5034.23 sq. kms. The entire district from the Tapi valley bordered by Satpura on the north, boundary of Gujarat state on the west. district of Dhule on south, Madhya Pradesh and Dhule on the east. There are total 947 villages include 12 uninhabited villages in the study area.

### OBJECTIVES:

The main object of the present study is to access relationship between slope and settlements distribution of Nandurbar district.

### **HYPOTHESIS:**

Slope is influenced on settlements distribution of Nandurbar district. These factors can be also determined from the settlements distribution of study area.

### **PHYSIOGRAPHY:**

The study region is physiographically Tapi river basin divides the study region into Northern and Southern sectors. The northern sectors form a part of Satpura Mountain and hilly regions, displaying a highly rugged and dissected topography with steep scrapes and gorges. The maximum elevation is 1329 meters above M.S.L. 2 km. southeast of Astamba and minimum elevation is 124 meter above M.S.L. near Taloda. The study region of south part exhibits and undulatory topography. Physiographically, the whole district may be broadly divided into the following regions.

- 1) The Northern Mountainous region.
- 2) The Central Plain region.
- 3) The Southern Hilly region.

The drainage is clearly indicative of riverine tracts a steep and gently slope region, north and south flowing river run-off is speedily, In this study area, major two rivers that constituted the drainage system of the region namely Tapi and Narmada.

### **DATABASE AND METHODOLOGY:**

The present work is carried out by using following methodology.

- 1-Literature: - The available literature on the above topic of research from various research paper and books.
- 2-Field Work: - Number of sites are visited to the study area.
- 3-Laboratory Work: - The toposheet is obtained from survey of India. These toposheet uses for slope and topography of the area under investigation, contour pattern, spot height, benchmark and trigonometric height is a significant tools. The slope and settlement distribution Map has been prepared.

### **ANALYSIS OF SLOPE:**

The purpose of this paper is to relationship between slope and settlement distribution. A slope may be formed by a covering of weathered rock resting on bed rock. Another type of slope consists of bed rock, forming the basal slope, covered by a weathered rock, often including a surface layer of soil. (P.C.Panda, 1990)

The slope loss or gain in altitude per unit horizontal distance in a direction of any segmental elements of the earth surface with the datum, express in degree is a



function of multiple processes. The slope also refers to the levelness of the region. Therefore, it influences on the distribution of settlements.

Average slope of an area is the most important controlling factor for settlements. For the present study, average slope is calculated with using following formula.

$$\text{Slope} = \frac{V1}{HE} = \tan O$$

With using, the above Wentworth (1930) formula slope of the study area has been calculated by using grid of 2sq.km. Then the isopleths map of the slope has been prepared. The superimposed map of the average slope on settlements of the Nandurbar district shows relation between slope and distribution of settlements.

Table No.1

S N	Slope (0°)	Name of the Tehsil						No of Rural Settleme nts	% of Rural Settlement s
		Akkalk uwa	Akr ani	Talo da	Shaha da	Nandur bar	Navap ur		
1	0°-2.5°	114	55	81	183	152	147	732	77.30
2	2.5° – 5.0°	41	73	06	-----	01	09	130	13.73
3	5.0°- 7.5°	17	26	03	-----	-----	01	47	04.96
4	7.5° – 10°	17	08	02	-----	-----	05	32	03.38
5	10.0°- 12.5°	01	01	01	-----	-----	-----	03	00.32
6	12.5° – 15.0°	01	----- --	----- -	-----	-----	-----	01	00.10
7	Above 15.0°	02	----- --	----- -	-----	-----	-----	02	00.21
	Total No. of Settlements	193	163	93	183	153	162	947	100.00

Source: Compiled by the researcher.

The slope map of Nandurbar district (Fig. No.01) and (Table No.1) shows that the area of Nandurbar district may be grouped into seven classes at uniform interval of 2.5° except the lowest and highest groups.

The lowest slope group i.e. below 2.5° covers 732 settlements and it contribute for the 77.30 percent of the total settlements. In Shahada tehsil cover 183 settlements is highest of this groups. This region is mainly includes the fertile land area along the banks of Tapi and Gomai. This area of slope coincides with very low.

The gentle slope of group (2.5°- 5.0°) mainly includes these area having slope up to 5°. This group includes 130 settlements and it contributes for the 13.73 percent of the

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total settlement. In this group, the Akrani tehsil is highest settlements than other tehsils. This area is occupied by the foothills of Satpura Mountain in northern part of district. The level slope of the banks of the Narmada, Tapi, Gomai, Udai and Nesu rivers. This region is preferred by people for settlements.

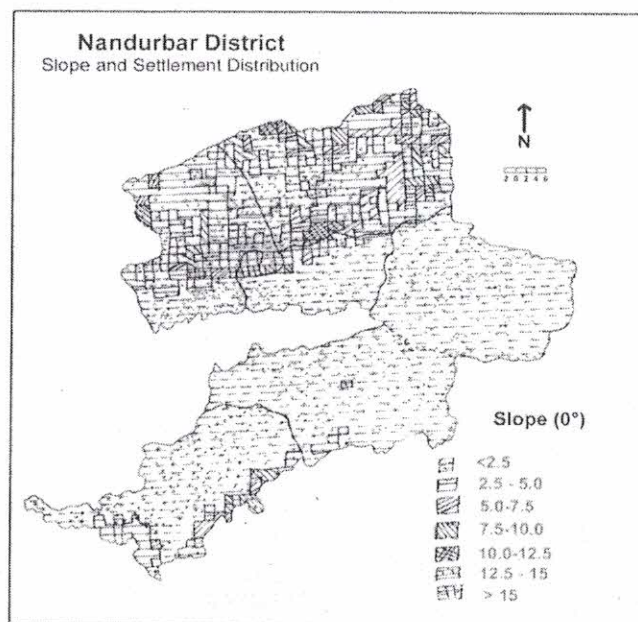
The moderate slope ( $5^{\circ}$ - $10^{\circ}$ ) accounts for low number of settlements. It includes only 79 settlements, which contribute to the 8.34 percent of the total rural settlements.

The moderately steep ( $10^{\circ}$ - $15^{\circ}$  and above  $15^{\circ}$ ) slope is a very low number of settlements. It includes only 06 settlements, which contribute to the 0.63 percent of the total settlements.

### CONCLUSION:

It may be concluded that the comparative study of the relationship between slope and settlements distribution reveals a Negative correlation between slope and number of settlements. It is observed that the gentle and moderate slope support a large number of settlements, whereas the steep slopes does not favour for the growth of settlements.

Fig. No.1





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## Kan River Water Pollution and its Impact on the Environment

By

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### Abstract:

*The environment and human beings are closely related. The environment affects human health, animals and plants. But in a polluted environment are affected with various diseases. About 80% diseases are spread due to polluted water. Human being are responsible for the adverse effects of polluted water on plants and animals.*

*In the present research paper, the study of water pollution and its effect on environment of Kan River in Sakri taluka is done.*

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### Study Area:

A 3Km stretch of Kan river from Krishi Bazar Samiti in west of Sakri town to K.T. Weir dam in the east has been taken for study.

### Objective:

1. To study the water pollution caused by various human activities.
2. To study the environmental impact of Kan river water pollution.

### Hypothesis:

To explore and study the water pollution of the Kan river due to human activities and its impact on the environment.

The geographical location of sakri taluka 27°17' to 20°49'N and 73°55' to 74°15' longitude and the altitude is 600m above sea level Sakri taluka is bounded on the west by Navpur and the south by Gujarat, on the north by Nashik district and on the east by Dhule and Shinkheda talukas.

The taluka covers an area of 2398sq.km and is bounded on the west by the sahyadri range. The Kan river originates at Hanumant pada near rainpada in sakri taluka. The river flows so it is called as purvahini river. It is tributary of Panjar river. There is a confluence of panzara and Kan rivers near Dattarti villages.

### Analysis of Water pollution:

Changes in the physical and chemical properties of water that make it harmful to drinking water for washing and other uses if the water is polluted. Chemically, water is



never pure. It contain various airborne plant residues bacteria etc. so the colour and properties of water change.

The main source of water pollution is sewage discharge from village sewage factories through agricultural activities and waste products etc.

This causes a large amount of water pollution in the daily process. It mainly consists of excrement food particles, paper, cloth rags, Soap and various detergent power etc. The use of various soaps and detergent powers used through face to face interviews with woman washing clothes in their river basin. Appears to have caused a great deal of water pollution. Also washing clothes and washing utensils in the river basin. Religious ritual {Ganpati visarjan, Gauri, Bhulabai and Laxshami visarjan}.

In the cementary ashes, village sewage vitabhatti on the river bank, insecticides used by farmers and chemicals, medical solid waste, Improper disposal of dead animal, Improper disposal of polyethylene waste salon waste and wound decomposition on the water etc. The Kan river appears to have been heavily polluted.

#### Impact on environment:

Water pollution has a huge impact on the environment. It features aquatic animal and algae. The effect of the vitabhatti on the river bank is from the food chain and the air is warmed by the release of toxic fumes so there are very few birds. Due to the high level of phosphate in the river, blue moss grows in the water and on the surface of water. Algae cover the plant and increase the oxygen rate in the water. Therefore, aquatic plants are destroyed due to not getting enough sunlight for under water photosynthesis. The release of toxic substances from factories into river water poses a threat to plant and animals.

#### Conclusion:

Domestic and sewage chemical substances from agriculture vegetables that have escaped the market, Garbage animals remains, polyethylene bags. In the cemetery ash risk of increased streak blue water content etc.

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## **14. Impact of Geographical Factors on Place Names of Navapur Taluka, Dist Nandurbar**

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### **Abstract**

An attempt has been made in this paper to study the place name in Navapur taluka district Nandurbar. The study region part of khandesh and northern Maharashtra. The entire taluka surrounded by north in Gujarat and south in Sakri taluka. It is overlooked by hills on one side. The taluka covers an area of 976.68 sq km. Rangavali river passes by Navapur. With the help of the data available from Census hand book. The village of Navapur taluka are classified according to their place names. Various physical and cultural factors influencing on place name of villages. There are total 162 villages in the Navapur taluka. These villages are classified according to their place names in the present paper.

### **Introduction**

Physical, cultural and economics factors affect the location, types, shape, size, spacing and place name of settlement. Therefore it is necessary to study how these factors influence on settlement of particular taluka. Physical factors are much more important. Physical factors particularly includes physiography, soil, climate, drainage and building materials. These factors are more important than economic and cultural factors. We can say that cultural factors and economic factors determined by physical factors.

### **Objectives**

The main objective of present study is to access impact of geographical factor on place names in Navapur taluka of Nandurbar Distract.

### **Hypothesis**

Settlements are influenced by physical, cultural and economic factors. The influence of these factors can be determined from the name of settlement.



### **Study Area**

The study area is located 60 km tower the west on the distract headquarters of Nandurbar. The extent of study area  $22^{\circ}18'N$  to  $73^{\circ}30' E$  longitudes. It is surrounded by songdh taluka towards west, sagbara taluka toward North, Dang taluka toward south and sakri taluka at east. It is near to Gujarat border. The taluka cover an area of 976.68sq km. There are total villages 162 in navapur taluka. Rangavli river passes by Navapur taluka. Total population of this taluka is 239507.

### **Data Base and Research Methodology**

The present work is carried out by using following methodology district census handbook and topographical map.

- A. Literature Survey: The available literature on the above topic of research is scanned from various research paper and book.
- B. Field Work: Number of sites is visited to the study the impact of physical and cultural factors on location and place names in the study area.
- C. Laboratory Work: Laboratory work includes classification of place name of the study area according to physical and cultural factors. Detail classification of the place names has been done and representing physiography, drainage, soil is prepared. The classification of place names according to the physical and cultural factor is shown with the help of pie diagram.

### **Analysis of Place Names**

The two main and sub types of factors affecting all place names. In a large number of instance the place names are connected with natural feature like flora and fauna, mountain, river and soil. The study of the place names show that many suffix and prefixes are related to character of topography, hydrology and geology. Cultural factors such as caste, personality, ethnic groups, deity, size and cultural history.

Table No: 1

**Impact of Geographical factors on place names of Navapur Taluka District Nandurbar**

Name of Tahasil		Physical Factors				Cultural Factors				Other	Total
		Geology	Topography	Hydrology	Flora & Fauna	Caste and Culture	Personality deity, Community	Size, land, Space	Culture History, Settlement process		
Navapur	No of Settlements	5	6	17	52	5	4	11	35	27	162
	%	3.08	3.72	10.49	32.10	3.09	2.42	6.79	21.6	16.66	100%

Source: Compiled by the researcher

**A. Place names associated with physical with physical factors**

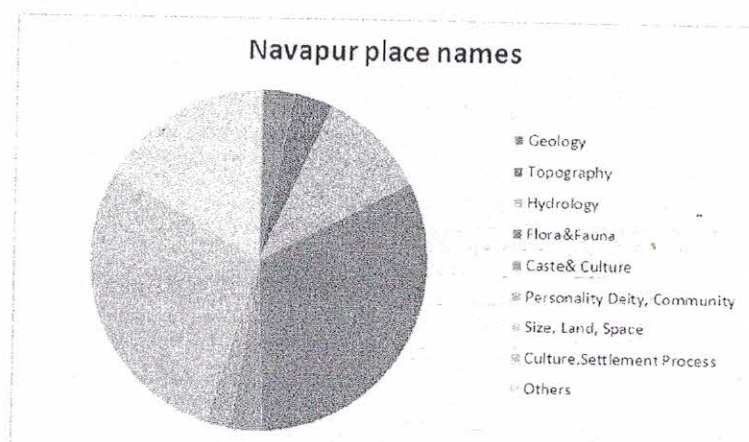
Brunches (1920) "The place names as fossils of human geography" There are many place names which are named after physical factors sing (1998). A scrutiny of the place name reveal that the place name after geological factors such as sand sonkhadake, Kholgar, Khaidiki etc. The geological and topographical factors together with having 11 (6.80%) settlement which is named after these factors. The place names related with flora and fauna are named after Amalan, Nandavan, Thuwa. The total number of village such as 52 (32.10%). The impact of hydrologyon place e.g. Nagziri, Borzar etc. The total number of such villages are 17 (10.49%). The total number of village having their names after physical factor are 80 (49.39). The contribute to the 49.39% of the total village in the taluka.

**B. Place names associated with cultural factors:**

Some place names occur after the cultural factors such as caste, ethnic group, personality deity, community, size of settlement, cultural landscape, cultural history, and cultural settlement process.

The place names which related with personality deity, Community are 4 (2.47%) e.g. Gokalnar Bijadevi, Tinmauli etc. They contribute 11 (6.79%) name occurs after the size of settlement such as Dapur, vavadi, etc some place names are found after the cultural history area such as Raipur, Vijapur, and Pratapur etc. They are 35 in number and contribute 21.60%. The place name which are named after caste, ethnic group such as Bilbar, Sonare etc. are 5 number and they contribute 3.09%.





### Conclusion

It is observed that the cultural factors are influencing in more than 33.95% the settlement of Navapur taluka. Among the cultural factors caste and personality is least influencing factors. The personality deity and community is showing their influence on more than 2.47% of the settlement. The impact of physical factors on the place names reveals that 52 (32.1%) settlement place names are related with flora and fauna. We find that most of cultural features are related with size of settlement and cultural history area having 46 villages (28.39%).

About 16.66% of the total place names could not be put under any of the categories identified above. As such they were grouped under the other or miscellaneous.

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