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## **The Study Of Status Of Workers In The Sagereshwar Sahkari Soot Girni Ltd.(Kadegaon)**

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### **Abstract: -**

Textile Industry in India is the second largest employment generator after agriculture. The Textile industry plays important role in the Indian economy and contributes substantially to its exports earnings. Textile exports shares nearly 30 percent of the country's total exports. It is 20 percent of the National production. It provides direct employment to cover be 15 Million parsons in the mill. Power Loom and Handloom Sectors. India is the world's second largest production of textiles after china. It is the world third largest production of cotton. After china and the USA and the second largest cotton consumer after China. The textile industry in India is one of the oldest manufacturing sectors in the country and currently. It's largest in Maharashtra Sangli District is very important in the textile industry. The co-operative spinning mill in the India is relatively started recently. The co-operative textile sector his played a commendable role in the upliftment of workers in the Sagershwarshakari soot Girni Ltd Kadegaon here about 10 percent workers are selected as a sample for study This Mill is selected in the semi urban area or rural area of Walwa Tehsil the workers are coming from surrounding village of this mill.

**Keywords: -**Co-Operative Textile Sector, Socio- Economic condition of workers, Manufacturing

### **Introduction: -**

The word "Textile" is derived from the Latin word "Texere" meaning to weave and "Textiles" means woven. The word 'Textile' was originally used to define a woven fabric and the process involved in wearing cloth from the ancient time textile industry was working it produced a various type of cloth. Now a days this industry is well established in all over the world. First Indian textile industry was established in 1822 on the bank of river Hugli in West Bengal. Jute industry made a beginning in 1855 with the establishment of a jute mill in the Hooghly Valley near Kolkata with foreign capital and entrepreneurship. Thereafter in 1854, the Indian industrialist Mr. Kawasaki DadabhaiDevar had taken initiative and established first modern cotton textile mill at Mumbai (Maharashtra) and after that in 1861, the third textile mill started at Ahmadabad (Gujarat). In the year 1907, the use of electricity has been started in the textile industry and the remarkable development of textile industry has been taking place. At present in India more than 1824 textile mills. Out of these 192 mills are run by the public sector, 153 are run by the co-operative sector and remaining 1479 textile mills are under the command of private sector. Maharashtra is an important and leading textile cloth manufacturer state in India because it is not only in number of textile mills but also cloth production and its allied activities. There are 210 cotton textile industries in which 36 per cent looms and 25 per cent spindles out of the total country in Maharashtra. The textile industrial sector of Maharashtra has provided nearly three lakes employments which contributes different levels of jobs. Mumbai is supposed as the biggest and significant Textile Hub in Maharashtra as well in India. Due to this, Mumbai is known as 'Manchester of India'. Followed the Mumbai, the cotton textile industries are concentrated at Ichakaranji (Kolhapur district) due to favorable locational factors and it is commonly called as 'Manchester of Maharashtra'. Beside these some other textile centers in Maharashtra which are Sangli, Sholapur, Pune, Jalgaon and Nagpur etc.

### **Profile Of Sagereshwar Sahkari Soot Girni: -**

The society in the name of Sagershwar shakari Soot Girni Maryadit is registered on 18 th December 1990, under co-operative societies act 160 of Government of Maharashtra for setting up of a spinning mill. The society has been organized and promoted by Hon Dr Patangrao Kadam who is the distinguished personality, Minister of Revenue, Maharashtra and founder of Bharati Vidyapeeth, and chancellor of Bharati vidyapeeth Deemed University which is well known reputed educational organizational at National and State level with its branches in abroad. This mill is successfully running under chairmanship of Hon Shantaram Kadam Hon Dr Patangrao Kadam promoted the co-operative spinning mill project, co-operative sugar factory, co-operative poultry, dairy project, Bharathi Shakari bank Bharathi Shakari bhandar, co-generation plant, distillery wind mill project, hydro power project, wineries, and co-operativemarketing societies are working under his leadership and guidance so as to achieve desire gains. The area of operation of these societies is Sangli and Satara districts as these areas needs industrial development. The main source of income of this rural area is from agricultural; state Government has selected this mill for inclusion in the VIIIth Five Year plan as per G.R.dated 11 th August 1993 and also



agreed to participate in the equity in the ratio of 1.9. This society has been organized by the farmer members and so far collected around Rs.2.42 crores shares capital from 6309 members and state govt. contributed Rs.21.70 crores against its participation. Mill has already acquired 40 acres of land. The proposed project of 42048 spindles is working with full capacity in three shifts. This mill has provided an employment opportunity to 595 unemployed youngsters in the area of operation. There will be industrial growth in nearby area due to established of small-scale industries surviving on a spinning mill. Kadegaontaluka in Sangli district which is declared as a textile park which is eligible for central and state government subsidies for textile mill which is exporting 50 % of yarn, which will help to get foreign currency to our country. so, now the farmers of this area will cultivate the cotton in their farms to get good price for their crops as the cotton is a raw material of spinning mills. The spinning mill is economically viable since the quality produced of the yarn is superior in view of latest model, machinery as well the mill is getting premium on yarn price. The mill has complete indigenous machinery of Laxmi Machines works Ltd. Coimbatore from Blow Room to Ring Frame. In winding the mill have imported latest Germany Schlafhorst 338 Auto coner machines to compute and stand in international market for yarn quality. Also, the mill has imported Laboratory Equipments of Uster Technology India Pvt Ltd, Switzerland. The mill purchases the cotton from Maharashtra, M.P, Gujarat Karnataka and Andhra Pradesh states. Now the mill is planning to implement cotton development scheme of N.C.D.C. New Delhi. Also planning to establish own ginning and pressing unit.

**Objectives: -**

- 1) To Study the facilities provided workers by Soot Girni.
- 2) To Study the socio-economic condition of workers.

**Methodology and Database: -**

The primary data has been collected from schedule which has been prepared for workers about 595 workers are working in the Sagereshwar shakari Soot Girni. From these workers about 10 percent workers are selected as sample for this analysis. Here stratified random sample techniques have been used for study. Further the researcher has recorded his observations during the data collection. Also, he had conducted the group discussions to understand the opinion and attitude of the respondents in general. Secondary data has been collected through technical performance report from Maharashtra state co-operative Textile federation Limited Mumbai.

**Status Of Workers In The Sagereshwar Sahkarisoot Girni: -**

Here schedule has been prepared for the analysis of status of workers in the soot Girni. This schedule includes questions regarding their General Information, Infrastructure and Facilities, Educational status, Family status, Economical status provided by soot Girni. About 49 Schedules have been filled up from the workers. The workers from different villages, different economical background has been selected.

**Table No- -1 Residential Address Of The Workers: -**

Sr. No	Local Workers	Out of State Workers	Total Workers
1	51	09	60

**Field work**

Above table shows that majority of the workers are coming from the nearest place of spinning mill. They are travelling 1 km to 21 km distance regularly to work in the spinning mill. Some workers are come here from out of state. (Goa and Karnataka and Bihar state). Those are stayed in the Islampur city. They are invited because they are experienced and skilled workers.

**Table No-2 Education Of Workers: -**

Sr. No	Education	Number of Worker
1	S.S.C	29
2	H.S.C	18
3	Graduate	11
4	Post Graduate	02
	Total	60

**Field work**

Above table shows that 48 percent workers are studied up to ssc and hsc. This soot Girni is situated in the rural area therefore various workers are coming from rural background. Remaining workers are highly educated those are supervisors and technical workers.

**Table No-3 Facilities Provided By Company: -**

Sr. No.	Facilities	Number of Respondent
1	Medical check up	60
2	Transportation	36
3	Accommodation	09
4	Food	60
5	Provident	60
6	Bonus	60
7	Training Programs	60
8	insurance	60

**Field work**

Above table shows that the various type of facilities is provided to workers by the Sagereshwar Sahakari Soot Girni. Medical checkup is doing regularly twice in a year. This Medical checkup is done for all the mill workers. Transportation facility is provided only for supervisors in form of travelling allowance. Food facility is provided for those workers who are staying for over time. Provident fund and Bonus is provided to all workers. Also, this soot Girni is arranging training programs for all workers, when they are joining this soot Girni.

**Table No -4 Problems During Working Hours: -**

Sr. No	Problems	Yes	No	Total
1	Problems regarding salary	33	27	60
2	Problems regarding working pattern	02	58	60
3	Problems regarding management	--	60	60
4	Problems regarding facilities	--	60	60
5	Problems regarding machineries	--	60	60

**Field work**

About 55 percent workers are feel that salary is low and increments in salary are not proper therefore they are not satisfied with salary. Machineries are not maintained properly therefore it create technical problem in working process. The workers are getting facilities in proper therefore about all workers are satisfied with the facilities.

**Table No-5 Impact On Health And Environment: -**

Sr. No	Impact	Yes	No	Total
1	Stress level increase	---		60
2	Heart problems	05	55	60
3	Hearing problems increased	---	60	60
4	Sleeping problems increased	---	60	60
5	Air gets polluted	---	60	60
6	Water gets polluted	---	60	60

**Field work**

Here questions about health problem and pollution have been asked. Here about 05 workers are saying they are going through heart problem. Machineries are doing very loud noise therefore it creates

hearing problem in the workers. Soot Girni is providing ear plug but most of the workers are not using this ear plug. Even soot Girni is also providing mask to the workers.

**Table No -6 Family Sizes Of Workers: -**

Sr. No	Persons in the family	Number of workers
1	Below-2	17
2	2 to 4	21
3	4 to 6	09
4	6 to 8	06
5	8 to 10	03
	Total	60

**Field work**

Above table shows that family size between 2 to 4 are in majority worker's house. The second largest group is 4 to 6 because all the workers are from nearby rural area, which is living in mostly joint family or with their old parents and therefore other peoples of family members are helping them in the agricultural practices.

**Table No.-7 Work Experience: -**

Sr. No.	Work Experience	Number of workers
1	1 Year	26
2	2 Year	16
3	3 Year	03
4	4Year	06
5	More than 5	09
6	Total	60

**Field work**

Majority of the workers are from nearby areas from the shareholders therefore they are not taken for experience. Therefore, here skilled workers are very less. Soot Girni is giving training of machine work after joining. Only few workers are experienced they are mostly from other state of from city specially invited because of their experience.

**Table No.-8 Change In Social Status: -**

Sr. No	Number of workers	Change in social status
1	38	Yes
2	22	No
Total	60	

**Field work**

About 63 percent workers are agreed that their social status has been changed because of this job. They are living in nearby villages they are doing agricultural practices with this job therefore they can invest better in agriculture than other people. Therefore, they get respect in the village more than only farmers therefore they feel that their social status has been improved.

**Conclusion: -**

This soot Girni is providing job to the people living in the nearby village therefore this soot Girni is responsible to improve standard of living of the people lives in nearby village. But majority workers are not experienced they are doing job because soot Girni is very near to their village and getting additional income. Therefore, they are not serious about job. Workers are having agricultural land and they are doing agricultural practices with this job. Therefore, not focusing on the skill and technology therefore for skill and technology soot Girni has appointed person from the out of state. Therefore, here few suggested improving the quality of workers for better development

1.The nature of work in textile units is temporary, 2.They should provide more health facilities to reduce health problem 3. Compulsory training programs

**References: -**

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# A Study of Bank Accounts Holders of Female Population in Scheduled Commercial Banks in India

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## **Abstract:**

The Nationalization of the Indian Banking Sector in 1969 was the first major step to reduce gender discrimination against women in banking and insurance sectors and has opened up opportunity for women empowerment. The employment pattern of Indian women has changed significantly since the 1970s. Technology has played a really important role in this transformation. Job-seekers find jobs in banks more attractive and more suitable to their nature. The present paper is an attempt to study the Women Employment in Scheduled Commercial Banks. This paper shows that Percentage of women at officers level, clerk level and subordinate level in scheduled commercial banks in India. This paper observed that the percentage of women employed in various bank groups at various levels of scheduled commercial banks, the highest percentage of female employees is for clerical grade at 27% posts followed by officer's grade with 23%.

**Key Words:** Scheduled Commercial Banks, Amount, Women Account Holders.

## **Introduction:**

Reforms in the financial sector have changed the structure of Indian Banking. The banking industry has moved gradually from a regulated environment to a deregulated market economy. The market developments kindly by liberalisation and globalisation have resulted in changes in the intermediation and globalizations have resulted in changes in the intermediation role of banks. In the recent times the pace of change has been more significant in recent times with technology acted as a catalyst. Indian Nationalized banks continue to be the major lender in the economy due to their sheer size and penetrative networks which assured them high deposits mobilization. The Indian banking can be classified into Public sector banks, Private sector banks & specialized banking institutions. India is a developing country. In order to appropriately assess the socio-economic circumstances in the country, it is important to study the percentage of women in economic workforce. According to the 2011 Census, the workforce participation rate for females is 25.51% against 53.26% for males. Rural sector has a better female workforce participation rate of 30.02% compared with 53.03% for males whereas for urban sector. The participation rate of females trails at 15.44% against 53.76% for males. 41.1% of female main and marginal workers are agricultural labourers, 24.0% are cultivators, 5.7% are household. As per Census 2011, a total of 20.5% women were employed in the organized sector in 2011 with 18.1% working in the public sector and 24.3% in the private. The labour force participation rate for women across all ages was 25.3 in rural sector and 15.5 in urban sector as compared with 55.3 and 56.3 for men in the rural and urban areas.

## **Objectives of the Research Paper:**

1. To study the percentage of account holders women in Scheduled Commercial Banks.
2. To study the Percentage of amount held by women in Scheduled Commercial Banks.

## **Research Methodology for the Research Paper:**

The present study is purely based on secondary data. This data has been used for getting a real result from research paper. Secondary data has been collected from the Books, Journals, National Sample Survey office, Basic Statistical, Social Statistics Division, National Statistical office, Ministry of Statistics and programme implementation Govt. of India, Women and Men in India, Government Web-Portal etc.

## **Population Group-Wise Deposits of Scheduled Commercial Banks:**

The information of percent of the bank amounts are held by female population and percent of the bank account are held by female population in Scheduled Commercial Banks is as follows.

**Table No. 1, Population Group-Wise Deposits of Scheduled Commercial Banks in India Since 2016 to 2019**

Group	2016		2017		2018		2019	
	% Female Individuals		% Female Individuals		% Female Individuals		% Female Individuals	
	No of Accounts	Amount	No of Accounts	Amount	No of Accounts	Amount	No of Accounts	Amount
<b>Rural</b>	33.60	28.86	35.80	30.44	37.0	31.8	31.88	25.04
<b>Semi-Urban</b>	30.95	28.73	32.47	29.77	33.4	30.6	29.51	21.88
<b>Urban</b>	31.19	32.37	32.52	32.54	33.9	33.6	31.43	20.52
<b>Metropolitan</b>	32.84	34.29	33.62	33.25	34.9	33.8	30.44	14.7
<b>All India</b>	<b>32.25</b>	<b>31.94</b>	<b>33.79</b>	<b>31.97</b>	<b>35.0</b>	<b>32.8</b>	<b>30.82</b>	<b>18.22</b>

**Source -Social Statistics Division, National Statistical Office, Ministry of Statistics and Programme Implementation Government of India.**

According to the Basic Statistical Returnsdata 2016 of Scheduled Commercial Banks in India, in rural area 33.60 percent of the bank accounts are held by female population while in semi- urban areas the percentage is 30.95 percent. Similarly, in urban areas the percentage is 31.19 percent and in Metropolitan areas the percentage is 32. 84 percent. Similarly, the percentage at India level is 32. 32 percent.As per the data of Basic Statistical Returns of Scheduled Commercial Banks in India 2016, in rural area 28.86 percent of the bank amounts are held by female population while in Semi- Urban areas the percentage is 28.73 percent. Similarly, in urban areas the percentage is 32.37 percent and Metropolitan areas the percentage is around 34.29 percent.Similarly, the percentage at India level is 31. 94 percent.According to the Basic Statistical Returnsdata of Scheduled Commercial Banks in India 2017, in rural area 35.80 percent of the bank accounts are held by female population while in semi- urban areas the percentage is 32.47 percent. Similarly, in urban areas the percentage is 32.47 percent and in Metropolitan areas the percentage is 33.62 percent. Similarly, the percentage at India level is 33.79 percent.

As per the data of Basic Statistical Returns of Scheduled Commercial Banks in India 2017, in rural area 30.44 percent of the bank amounts are held by female population while in Semi- Urban areas the percentage is 29.77 percent. Similarly, in urban areas the percentage is 32.54 percent and Metropolitan areas the percentage is around 33.25 percent.Similarly, the percentage at India level is 31. 97 percent.As per the data of Basic Statistical Returns 2018 of Scheduled Commercial Banks in India, in rural area 37.0 percent of the bank accounts are held by female population while in semi- urban areas the percentage is 33.4 percent. Similarly, in urban areas the percentage is 33.9 percent and in Metropolitan areas the percentage is 34.9 percent. Similarly, the percentage at India level is 35.0 percent.As per the data of Basic Statistical Returns of Scheduled Commercial Banks in India 2018, in rural area 31.8 percent of the bank amounts are held by female population while in Semi- Urban areas the percentage is 30.6 percent. Similarly, in urban areas the percentage is 33.6 percent and Metropolitan areas the percentage is around 33.8 percent.Similarly, the percentage at India level is 32.8 percent.

According to the Basic Statistical Returnsdata 2019 of Scheduled Commercial Banks in India, in rural area 31.88 percent of the bank accounts are held by female population while in semi- urban areas the percentage is 29.51 percent. Similarly, in urban areas the percentage is 31.43 percent and in Metropolitan areas the percentage is 30.44 percent. Similarly, the percentage at India level is 30.82 percent.As per the data of Basic Statistical Returns of Scheduled Commercial Banks in India 2019, in rural area 25.04 percent of the bank amounts are held by female population while in Semi- Urban areas the percentage is 21.88 percent. Similarly, in urban areas the percentage is 20.52 percent and Metropolitan areas the percentage is around 14.70 percent.Similarly, the percentage at India level is 18.22 percent.

**It is observed from the table-**

The proportion of account held therein is greater in case of rural females at 33.60 percentthan that of female population of other areas. While it is less in urban areas i.e. 31.19 percent.The proportion of amount held therein is greater in case of metropolitan females at 34.29 percent than that of female population of other areas.While it is less in rural areas i.e. 28.73 percent.The proportion of account held therein is greater in case of rural females at 35.80 percentthan that of female population of other areas. While it is less in semi-urban areas i.e. 32.47 percent.The proportion of amount held therein is greater in case of metropolitan females at 33.25 percent than that of female population of other areas.While it is less in semi-urban areas i.e. 29.77 percent.The proportion of account held therein is greater in case of rural females at 37.8 percentthan that of female population of other areas. While it is less in urban areas i.e. 33.9 percent.The proportion of amount held therein is greater in case of metropolitan females at 33.8 percent than that of female population of other areas.While it is less in semi-urban areas i.e. 30.6 percent.The proportion of account held therein is greater in case of rural females at 31.88 percentthan that of female population of other areas. While it is less in semi-urban areas i.e. 29.51 percent.The proportion of amount held therein is greater in case of rural females at 25.04 percent than that of female population of other areas.While it is less in metropolitanareas i.e. 14.70 percent.

Hence, it can be concluded that the percentage of the amounts are held by female populationin scheduled commercial banks are very low as compared to male, it has because of the percentage is not more than 32.8 percent. It means the highest percentage of women is 32.8 percent only. In short, in today's environment females are financially not self-dependent. It means they depends on the male regarding financially. Hence, it can be concluded that the percentage of the account holders are held by female populationin scheduled commercial banks are very low as compared to male, it has because of the

percentage is not more than 35 percent. It means the highest percentage of women is 35 percent only. In means, there are no equal financial literacy among the men and women.

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# Impact of Climate Change on Agriculture in Western Satara District - An Analysis Of Farmer Awareness And Knowledge

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## Abstract:

The effects of climate change can be seen on many crops in various regions and provide sufficient information on the expected effects on food production in the western Satara district. Western Satara district is undergoing visible changes due to the effects of climate change. Seasons and rainfall change, rivers dry up, spring water no longer sustains communities whose livelihoods depend on existing water systems to meet livestock needs, agriculture and household chores. Unplanned urbanization and economic development, deforestation and use of unsustainable land in the hilly region have created challenges due to excess surface water flow, surface erosion, poor water operation and maintenance. Attempts have been made to collect data from 250 farmer respondents based on the Convenience sampling technique to raise awareness and knowledge about the effects of climate change on agriculture. The results showed that most respondents were conscious of aspects of climate change such as 'Climate Change Terms and Meaning', 'Crop Loss', 'Seasonal Changes', 'Temperature Rises Over the Years', and much more about the knowledge level. More than half of the respondents (56.88 percent) had medium knowledge, followed by low (22.67 percent) and high (20.45 percent) knowledge about climate change and related issues.

**Keywords:** Knowledge, Climate change, Impact, Awareness

## Introduction:

The impacts of climate change in the livelihood and agriculture sectors due to increased extreme weather, floods, droughts frequency and decrease of crops yield are in public discussions and a great reason of concern to the government. India's food security is likely to be threatened in the future due to the threat of climate change. This increases the frequency and intensity of droughts and floods, which affects the productivity of small and marginal farmers. The impact on forests and biodiversity will have adverse socio-economic effects on forest dependent communities and the national economy. The majority of the population in the Western Satara district is rural; Therefore, the role of agriculture sector is important in determining the economy of this region. Cultivation is a major crop, especially in the hilly areas. Although the Western Satara district is perhaps the richest state of Maharashtra in terms of natural resources. Western Satara district can be attributed to natural disasters (floods, droughts, and earthquakes) and weak institutional structures for managing natural resources. Western Satara is a mountainous district and is rich in natural resources. It is a predominantly agricultural region and 70.00 percent of its population is dependent on agriculture. Due to migratory terrain, migratory farming is a common practice in this region. The poorest farmers of Western Satara district will be most affected by the adverse effects of climate change as they lack the resources to adapt socially, technically and economically. Therefore, the purpose of this study is to know the level of awareness and knowledge of farmers about climate change in agriculture in Western Satara district.

## Methodology

The present analysis is being carried out in the Wai, Mahabaleshwar, Jaoli and Patan tehsils of Satara district in the Maharashtra state. Respondents were selected from different villages. The Convenience sampling technique was adopted to select a sample size of 250 respondents. The list of items was created in the types of objectives and the data was collected using a google form. Awareness of farmer respondents about climate change was measured on two points, 'aware' and 'not aware', and was awarded 2 and 1 marks, respectively. In view of the level of knowledge of farmer respondents about climate change and related issues, selected items were given to respondents. According to the score, farmers were classified as low, medium and high using cumulative frequency.

## Results and Discussion

### a) Awareness of respondent farmers about climate change

The extent to which a community is aware of climate change reflects its level of exposure to climate threats. This information on respondents' awareness of climate change and its impact on the study area was compiled, analyzed and presented in Table 1.

Table - I  
Distribution Of Respondents According To Farmer Awareness About Climate Change  
(n= 250)

Sr. No.	Particulars	Aware	Percentage (%)
1	Climate change : Meaning and terms	245	98.00
2	Temperatures have been rising for years due to climate change.	238	95.20
3	Global warming due to climate change.	230	92.00
4	Changes in temperature due to climate change.	221	88.40
5	Crop damage due to climate change.	214	85.60
6	Climate change increases the intensity of floods and rains.	209	83.60
7	Climate change causes a change in the seasons.	196	78.40
8	Climate change reduces the number of rainy days.	192	76.80
9	Extreme winds and storms due to climate change.	178	71.20
1	Climate change often causes cyclones.	167	66.80
1	Climate change causes flash floods along the river.	145	58.00
1	Uneven distribution of rainfall is due to climate change.	133	53.20
1	Decreasing agriculture production due to climate change.	126	50.40
1	Climate change is increasing heat and cold waves.	110	44.00
1	Industrialization is a major cause of climate change.	90	36.00
1	Climate change depletes the ozone layer.	87	34.80
1 7	The melting of glaciers and rising sea levels are all due to climate change.	83	33.20
1	Acid rain is mainly caused by climate change.	64	25.60

According to Table I, the majority of the respondents were aware about the climate change viz., 'Climate change : Meaning and terms' which is 98.00 percent, 'Temperatures have been rising for years due to climate change' (95.20 percent), 'Global warming due to climate change' (92.00 percent), 'Changes in temperature due to climate change' (88.40 per cent), 'Crop damage due to climate change' (85.60 percent), 'Climate change increases the intensity of floods and rains' (83.60 percent), 'Climate change causes a change in the seasons' (78.40 percent), 'Climate change reduces the number of rainy days' (76.80 percent). The awareness level of respondents on some of the consequences of climate change are 'Extreme winds and storms due to climate change' (71.20 percent), 'Climate change often causes cyclones' (66.80 percent), 'Climate change causes flash floods along the river' (58.00 percent), 'Uneven distribution of rainfall is due to climate change' (53.20 percent), 'Decreasing agriculture production due to climate change' (50.40 percent). The awareness levels of the respondents was found to be minimum in the aspects like 'Climate change is increasing heat and cold waves' (44.00 percent), 'Industrialization is a major cause of climate change' (36.00 percent), 'Climate change depletes the ozone layer' (34.80 percent), 'The melting of glaciers and rising sea levels are all due to climate change' (33.20 percent), 'Acid rain is mainly caused by climate change' (25.60 percent). It can be concluded that most of the farmers are aware of climate change and its adverse effects. This may be due to the fact that the social participation, mass media exposure and scientific orientation of the majority of respondents was quite good.

**b) Farmers 'Response to Climate Change'** Farmers' knowledge of climate change is studied in terms of rainfall patterns, temperature, relative humidity, heat and cold, environmental pollution, adverse effects of climate change on agriculture and various other changes. The findings on overall information level of respondents on climate change are presented in Table II.

Table II  
Distribution of Farmer Respondents According To Their Overall Knowledge Level About Climate Change  
(N= 250)

Sr. No.	Category	Number	Percentage (%)
1	Low	57	22.67
2	Medium	142	56.88
3	High	51	20.45
Total		250	100.00



It is observed from the data on table II that more than half of the respondents (56.88 percent) had medium level of knowledge followed by low (22.67 percent) and high (20.45 percent) levels of knowledge about climate change. It can be concluded that the reason for moderate level awareness about climate change may be due to the spread of media and social participation of the majority of farmers from primary to secondary level. The majority of farmers had moderate level of knowledge which was passed down to them by their ancestors. In contrast, science and technology are making a significant contribution to improving the agricultural system, and the real problem is the lack of knowledge that exists. This is due to poor distribution of knowledge or when information is not available in usable form. Failure to apply knowledge that conflicts with traditional practices, social and legal traditions, and existing power structures in communities and nations.

#### **Conclusion:**

Farmers need to have the necessary skills and knowledge to implement alternative production techniques. It takes time to take a clear and distinct role in strengthening research on climate change and extension services, especially in vulnerable regions. As a result, new policies should focus on climate change awareness and knowledge generation through a variety of sources, such as mass media and outreach services to rural people.

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## **Comparative Study of Scheduled Casts and Scheduled Tribes Sex-Ratio in India & Maharashtra (1961 to 2011)**

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### **Abstract:-**

The sex composition of population is the basic demographic characteristic depending on directly incidence of birth, death and marriages. Sex-ratio is one of the important indicators to comprehend women's health and the position in any society. Sen first addressed this disturbing trend by recognizing that millions of women in India and China are the only countries in the world in which female infant mortality rates are higher than that of males. The skewed child sex ratio in India is a shameful testimony about development of girls and women developed in India. After independence, we are facing a big social problem about the decreasing sex-ratio in the society. The most alarming trends in India is that son preference, which can be a normal attribute for couples who have only girls, is accompanied by the neglect and deaths of millions of females through lack of medical care, improper nutrition, infanticide and sex selective abortions. The present paper shows that, the General, Scheduled Casts and Scheduled Tribes sex-ratio in India and Maharashtra during the period 1961 to 2011.

**Keywords:** Overall Sex-Ratio, Scheduled Casts Sex-Ratio, Scheduled Tribes Sex-Ratio.

### **Introduction:**

Sex-ratio is a major indicator, when equality of male-female considered. In research study of population related to sex ratio, it is necessary to study division of sex-ratio. Sex-ratio in total population known as female-male ratio (FMR), which is also known as sex-ratio. Gender structure is a basic concept while scientifically studying population. It plays main role in description of population, as it affects birth, death and marital states. Differences in sex-ratio can be seen due to spreading population. Beside economical condition, other factor like status of women in society, their places also cause difference in sex-ratio. It is necessary to maintain sex-ratio for social welfare of society. Generally sex-ratio in developed country is balanced, but it is considerably very less in other countries. A special fact is seen that in developed country as well as in tribal area number of women of the more (highest sex-ratio). And if there is more labour power if there is more number of men in society. As well as death rate is also more. And if there is less number of women, marital age is lesser. It results in increase in rate of reproduction. In such type of society prostitution, genital outrage (misbehavior) are common seen. So, it shows that no. of women must not be less. Registrar General of India says that due to high death rate, the no. of women in India is less. It means that women's of different age dying due to different reason. And it is affecting no. of females in population. Philip Oldenburg point of about decreasing sex-ratio that, it is mainly causing due to preference given to male child than female child. And it will be reason same till people start giving preference to female child. In 1981, Hariman and Boyasi studied reason behind death of women's in china. According to Hariman & Boyasi, Chinese people do not kill female child because they do not have food. But, reason is that studied of a family came in front of society through dowry as well as child runs heritage of a family so they kill female embryo or female child. Hariman and Boyasi concluded only on study of china but, some in other countries like India, there are so many studies at state as well as national levels. Study shows so, many evidence or proof about killing of embryo in some regions of India. It is a tradition to kill female child in area such as Palghar district of Tamil Nadu. Some tradition is seen in some regions of Rajasthan and in few castes of Khandesh in Maharashtra. So decrease in sex-ratio is caused due to killing of female child. Through research until now, a sex-ratio clears that it is affected by different factors like biological, social, economy and migration. On this background, sex-ratio in India and Maharashtra is necessary which is explained as follows.

### **Objectives of the Research Paper:**

1. To study the General Sex-Ratio of India & Maharashtra.
2. To study the Sex-Ratio of Scheduled Casts in India & Maharashtra.
3. To study the Sex-Ratio of Scheduled Tribes in India & Maharashtra.

### **Research Methodology of the Research Paper:**

The present study is based on secondary data. This data has been used for getting a real result from research paper. Secondary data has been collected from the Census Reports and Statistics office, Beed, Annual Vital Statistics of Maharashtra Published by the Director of Health services and the Chief Registrar of Births and Deaths, Bombay, Gazetteers of Beed district and Government Web-Portal.

### Overall sex-ratio in India and Maharashtra :-

Economic development has been started from first five yearly plans. As compared with other countries, India has more number of eligible women. There is more number of working women in India than other countries. We can see women's working in different sectors like doctor, surgeon, scientist, professor, pilot, economist and bus-conductor; but, till India facing decreasing sex-ratio. The comparative study of position and trends of sex-ratio in India and Maharashtra is as given in table no. 1.

**Table No. 1**  
**Overall sex-ratio and its trends in India & Maharashtra (1961 to 2011)**

Sr.No.	Census Year	General		Rural		Urban	
		India	Maharashtra	India	Maharashtra	India	Maharashtra
1	1961	941	936	966	945	847	801
2	1971	930	930	950	985	859	820
3	1981	934	937	952	987	880	850
4	1991	927	934	941	972	893	875
5	2001	933	922	946	960	900	873
6	2011	940	929	949	948	929	899

**Source: Government of India and Maharashtra, census reports 1961 to 2011.**

The above table shows that, during the period under study overall Sex-ratio of India is greater than Maharashtra in census year 1961, 2001 and 2011, and it less in census year 1981 and 1991, while is equal in census year 1971. In this study, overall sex-ratios of India and Maharashtra through census year 1961 to 2011, positive-negative growth is seen; but sex-ratios of both India and Maharashtra decreased by (-1) and (-7) respectively. Decreased rate of Maharashtra is more than India during the period under study. During the period under study, it is seen that, rural sex-ratio of India is greater than Maharashtra in census year 1961 and 2011 and it less than in census year 1971, 1981, 1991 and 2001. In this study rural sex-ratio of India and Maharashtra throughout census year 1961 to 2011. Positive-negative growth is seen, rural sex-ratio in India decreased by (-17) and Rural sex-ratio in Maharashtra increased by (3). During the period under study, it is seen that, urban sex-ratio of India is greater than urban sex-ratio of Maharashtra. Urban sex-ratio of India shows tendency of continuous growth. This growth is (82). While urban sex-ratio of Maharashtra shows tendency of continuous growth except census of 2001 (compared to last census year). This growth is (98). It means during study period positive growth is seen and it is greater in Maharashtra than India. In study period it is seen that, rural sex-ratio of India is greater than overall and urban sex-ratio. Urban sex-ratio is least compared to other.

Hence, it can be concluded that the rural sex-ratio of Maharashtra is greater than overall and urban sex-ratio while urban sex-ratio is too much less but it shows increasing trends during the period under study.

### Schedule Caste and Schedule Tribe Sex-Ratio:-

According to section 241 of India Penal Code on president order, few religious groups of Indian society are known as schedule caste. Schedule caste word is used to indicate backward social group. It is necessary to study position of women in these groups and it is also reporting to study sex-ratio in these groups. According to section (1) of Indian Penal Code, president declared some caste as schedule tribe. It mostly included people/caste living in forest, mountains, hill areas and which do not having relation with culture and modern life. These castes also known as "Girijan or "Adhivasi. It is necessary to study sex-ratio of schedule tribe and its trends in such areas which mostly live in hilly areas. It clears backward place of women in schedule tribe. During research period, trends of schedule cast and schedule tribe sex-ratios in India and Maharashtra is shown in table no. 2 and it is as follows.

**Table No. 2, Trends of Scheduled Castes and Scheduled Tribes Sex-Ratio in India and Maharashtra (1961 to 2011)**

Sr.No.	Census Year	Scheduled Cast		Scheduled Tribe	
		India	Maharashtra	India	Maharashtra
1	1961	957	962	987	978
2	1971	935	947	982	973
3	1981	932	948	983	974
4	1991	922	944	972	968
5	2001	936	952	978	973
6	2011	945	962	990	977

**Source: Government of India and Maharashtra, census reports 1961 to 2011.**

The above table shows that, in census year 1961, sex-ratio of schedule caste in India and Maharashtra was 957 and 962 respectively. It means that in 1961, sex-ratio of scheduled caste in India is lesser than that Maharashtra. Similarly, sex-ratio of schedule tribe in India and Maharashtra was 987 and 978 respectively. In census year 1971 sex-ratio of schedule caste in India and Maharashtra was 935 and 940 respectively. It is much lesser than compared to last census. Sex-ratio of schedule caste in India and Maharashtra is decreased by (-22) and (-15) respectively. While, sex-ratio of schedule tribe in India and Maharashtra was 982 and 979 respectively. In census year 1981, sex-ratio of schedule caste in India and Maharashtra was 932 and 948 respectively. As compared to last census sex-ratio of schedule caste decreased by (-3), while sex-ratio of schedule caste increased in Maharashtra (1). Similarly, sex-ratio of schedule tribe in India and Maharashtra was 983 and 974 respectively. As compared to last census sex-ratio of schedule tribe in India and Maharashtra is equally increased by (1). In census year 1991, sex-ratio of schedule caste in India and Maharashtra was 922 and 944. As compared to last census, the sex-ratio of schedule caste is decreased in India and Maharashtra and it was (-8) and (-4) respectively. While, sex-ratio of schedule tribe in India and Maharashtra was 972 and 968 respectively. As compared to last census, sex-ratio of schedule tribe in India and Maharashtra is decreased by (-11) and (-6) respectively. Decrease rate is more in India than Maharashtra. In census year 2001, sex-ratio of schedule caste in India and Maharashtra was 936 and 952 respectively. As compared to last census there is positive growth in sex-ratio of schedule caste in India and Maharashtra. It is (14) for India and (18) for Maharashtra. This growth is greater in India than Maharashtra. But sex-ratio of schedule caste in Maharashtra is greater than India. While, sex-ratio of schedule tribe in India and Maharashtra was 978 and 973 respectively. As compared to last census, sex ratio of scheduled tribe in India and Maharashtra is increased by (6) and (5) respectively. Increase rate is more in India than Maharashtra.

In census year 2011, sex-ratio of schedule caste in India and Maharashtra was 945 and 962. As compared to last census it is increased by (9) in India and (10) in Maharashtra. This growth is more in Maharashtra than India. Similarly, sex-ratio of schedule tribe in India and Maharashtra was 990 and 977 respectively. As compared to last census sex-ratio of schedule tribe in India and Maharashtra is increased by (12) and (4) respectively increased rate is more in India than Maharashtra.

**It is observed from the above table-**

During research period it is shows that, India and Maharashtra show negative growth (-12) is seen in sex-ratio of schedule caste of India. While equality is seen in sex-ratio of schedule caste in Maharashtra.

It is found that, except census years of 1981 and 1991, remaining all four census year sex-ratio of schedule caste in India is greater than overall sex-ratio of India. In study period sex-ratio of schedule caste in Maharashtra is greater than overall sex-ratio of Maharashtra. While studying trends in sex-ratio schedule tribe in India Maharashtra it is seen that, sex-ratio of schedule tribe in India is greater than sex-ratio of schedule tribe in Maharashtra. During research period, sex-ratio of schedule tribe same time increase some time decrease in India positive growth (3) is seen in sector of schedule tribe of India. While negative growth is seen in sex-ratio of schedule tribe of Maharashtra (-1).

Hence it is concluded that, overall sex-ratio of schedule tribe in India is greater than overall sex-ratio of India. Hence it is concluded that, overall sex-ratio of schedule tribe in Maharashtra is greater than overall sex-ratio of Maharashtra. Hence it is concluded that, Schedule tribe is a very backward class in India and Maharashtra sex-ratio of schedule tribe of both places is greater than 970. It means this sex-ratio is greater than national average and it is too satisfactory.

**Conclusion:-**

In research period it is found that rural sex-ratio in India and Maharashtra is greater than total and urban sex-ratio. As well as sex-ratio in schedule castes and schedule tribe is greater than total sex-ratio except few census (with respect to India). As well as sex-ratio of schedule caste and schedule tribe in India greater than sex-ratio of schedule caste, schedule tribe in Maharashtra. It points out that, when we compare been India and Maharashtra condition and sex-ratio is India its better than Maharashtra. But the decreasing sex-ratio is being responsible for social problem in future. Basic attitude of the society towards women, women's illiteracy and marriages behind this situation.

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## Food and Drink in the Short Stories of R. K. Narayan's Malgudi Days.

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### Abstract

**Malgudi Days** is a collection of short stories by R. K. Narayan published in 1943 by Indian Thought Publications. The stories written with simple style and characteristic gentle irony portray the variety and colour of Indian Life. In India, food plays very important role in the people's life. Food and Drinks shows the culture, community, religion, social and political status of the person. It also shows different mood of the person such as people having dinner and betel leaves to celebrate their success, lost taste due to fear and tense etc. R. K. Narayan describes and mentions food and drinks effectively. He himself liked curd rice and coffee. On his walks Narayan always sucked a clove, cardamom or betel nuts stored in a tiny Kodak film box he carried in his pocket. He was strict vegetarian and, he did not impose his regimen on his hosts. R.K. Narayan uses food and drink in the short stories for the function of satire, irony, and humour. The objective of this paper is to find out the importance of food and drink to understand intention of the characters appropriately. To study of the style, method and the depicted Indian tradition of R.K. Narayan's short stories.

**Key Words:** Malgudi Days, short stories, Food and Drinks, Indian Culture, Satire, Irony and Humour.

### Introduction:

**Malgudi Days** is a collection of short stories by R. K. Narayan published in 1943 by Indian Thought Publications. The stories have been written with simple style and characteristic gentle irony portray the variety and colour of Indian Life. Some stories have been taken from this collection which are based on food and its importance i.e. Hungry child, Naga, Emden, The Snake-Song, Fellow-Feeling, Iswaran, Gateman's Gift, etc. and in other stories south Indian food has been mentioned by him to give flavor of his culture. He uses food and drink in the short stories for the function of satire, irony, and humour.

In India, food plays very important role in the people's life. *Sadhu* or *Sanyasi* goes to door to door for the food and its Indian culture that people give them food with respect and believe that they can receive blessings from *Sadhu*. When person is in excitement or in trouble he or she lost interest from the food. Many people like snake charmer, who depends on animal for food and fulfills their food demands through animal and live with them like blood relatives. In India when person died, his/her relatives or blood relatives keep favorite food in his/her last ceremonies and they believe that if crow touches food then they get permission to go to home with satisfaction otherwise people think that his/her soul is not happy with the food item so relatives try to change food items so that the crow come and touch the food.

In Indian culture, food decides caste system. In Hindu religion Brahmin never eat non-veg they eat only veg but other castes people mostly eats non-veg and veg both. When people get success in their life they celebrate their success with giving dinner party to friends and relatives. People also offer milk to snake in the name of religious beliefs. In the time of R. K. Narayan's period, most people work for food than money. If they get food for the day for their work, they become satisfied.

Malgudi Days, collection of short stories based on all these beliefs and things. R. K. Narayan describes and mentions food importance and uses it for satire, irony and humour effectively. He himself liked curd rice and coffee. On his walks Narayan always sucked a clove, cardamom or betel nuts stored in a tiny Kodak film box he carried in his pocket. He was strict vegetarian and, he did not impose his regimen on his hosts. His favourite haunt was the Southern Spice restaurant at the Taj. He always sat at a particular table and knew exactly what he wanted, which would generally be a *dosa* or an *aappam*. He was much disciplined in his eating habits. He would not eat anything or take any soft drink before his meal. But he loved desserts; he also loved chocolates and Indian sweets.

### Food and Drinks in the Short Stories:

In the short stories of R. K. Narayan there are stories which give immense importance to food. In the story *Gateman's Gift*, Singh lives in fear of opening the registered letter that has been sent to him. So crippling is Singh's fear that he believes himself to be going mad. Though the logical thing to do would be to open the letter and discover whether the letter holds good or bad news Singh isn't able to do this. He lost taste for food. This loss of taste is important as it highlights just how overpowering the fear is for Singh. In the story *Fellow-Feeling*, Narayan may be exploring the theme of conflict between Rajam Iyer and another passenger over the seat. They are having an argument based on the caste system that exists in India. Rajam is a Brahmin and this annoys the other passenger. It is also interesting that the other

passenger blames Rajam on the increase price of meat, because the Brahmin is prepared to pay so much to keep it in secret. The newcomer mocks the Brahmin community about stealthily eating meat and fish. Here Narayan uses food for satire and humour effectively. Narayan may be highlighting the animosity that existed in India at the time the story was written between social classes or castes. In the story *Iswaran*, The proprietor of *Ananda Bhavan* a genial Bombay man, was a friend of Iswaran asked about his result and Iswaran replied him that '*I will go to a higher class, that is all.*' The hotel proprietor said, "*Don't leave me out when you are giving a dinner to celebrate your success.*" When *Iswaran* went again for the picture he noticed a group of boys who has been seen their results, and come now to celebrate their success. *Iswaran* knew that they must be a happy and gay lot, with their lips red with chewing betel leaves. Here, we can see that people having dinner and betel leaves to celebrate their success. The story, *The Snake Song* is an incident that occurs in the *Talkative Man's* life. He recounts an interesting and gripping anecdote to his friends when an argument starts about the difference between extraordinary music and mediocre music. He lived in a small cottage. Once while, he was in practice, he heard a knock at the door. He opened the door. A *Sadhu* was standing there and he asked for something to eat. The man turned the *Sadhu* out saying that he had nothing to spare him. So saying, he closed the door. In return the *sadhu* also got angry and left the house, cursing the man. He cursed him saying that; that was the last day of music and the next day he would exchange his flute for a handful of dried dates. Here, only handful food is necessary for the favor of *Sadhu* but due to business the *Talkative Man* didn't serve the food to the hungry *Sadhu* and in return he cursed the *Talkative Man*.

The story *Naga* is about relationship between man and animal, which are mutually dependent on each other for food and affection; though they are neither a part of the natural food chain, nor the residents of same territory, yet they establish a bond which proves to be even stronger than blood ties. *Naga* is a story of young boy who lives in Malgudi with his father; a snake charmer. The father-son duo is quite poor and totally dependent on the snake *Naga* for their livelihood. When both realized that *Naga* is not able to perform well, they decide to leave it in the Jungle. Man is using animal for his livelihood but when he realizes that it is not useful for him, he doesn't think twice to leave it forever. Here, R.K. Narayan used food for the satire and irony. In *Hungry Child*, Raman goes to the town fair in Malgudi. Even though it is loud, and wild, Raman seeks its distractions. Then he hears an announcement about a lost, crying child. Raman buys cotton candy and goes to the fair's central office. He holds up the cotton candy and the boy of about 7 years old runs over to him. Expo'77 had provided snacks and drinks at every stop. Mounds of green chillies, cucumber and tomato, vegetable bajjis, water like appalam sizzling oil and expanding like the full moon before your eyes or fresh golden *jilebis* out of the frying pan. Raman asked cones of ice-cream, chocolates and bubble gum to the young boy. The boy's mouth watered at this vision and wants to eat. Raman also buys some sweets from *Chettiar Stores*. He thought that if he offered him whatever the young boy wants then the boy will be with him forever. The young boy didn't complaint about Raman to eat some chocolate, ice-cream and *jilebis*. He enjoys Raman's company but when his real parents came he left Raman and went to his parents. Here, R.K. Narayan used food for the satire and humour. In the story *Emden*, the central character Rao is the oldest man in town, close to 100 years old. His senses have dimmed, but he is still able to walk, eat and read a newspaper. Rao's favorite part of the day is after his afternoon nap, when he drinks coffee, reads the newspaper, and then goes out for a long, slow walk around town. Rao was known for his affairs with single women whose name starts with S'. Rao broke the relationship with this woman due to some issues. He could not remember her house, but he knows there used to be a coconut palm and a well in the street in front of the house at the Gokulam Street. He decided to meet her and bought the *jilebi* for her. He hugged the packet of sweets close to his chest. When he reached the Gokulam Street, he got to know that it's too late now. All the generations of men and women who could have known Gokulam Street and the coconut tree were dead-new generations around here, totally oblivious of the past. He was a lone survivor. He become nervous and decides to go back. A brown mongrel, which had lain curled up in dust, in perfect camouflage, sprang up with a piercing howl; Rao jumped without falling down but the packet of *jilebi* flew from his grip and mongrel picked it up and trotted away, wagging his tail in gratitude. Rao thinks that, "Who knows, S. is perhaps in this incarnation now....."

Here, R. K. Narayan uses food i.e. *jilebi* for satire and irony. Rao wants to apologize to a woman but it's too late. He becomes nervous but when a street dog jumped at him and snatched the packet of *jilebi*. He thinks that perhaps this is S' in this incarnation now.

### **Conclusion:**

Stories has been taken from the collection of *Malgudi Days* which are based on food and its importance i.e. *Hungry child*, *Naga*, *Emden*, *The Snake-Song*, *Fellow-Feeling*, *Iswaran*, *Gateman's Gift* etc. and in other

stories he has mentioned south Indian food items to give flavor of his culture. In all the above stories we can find that R. K. Narayan uses food or food items for the irony, satire and humour effectively. So it is noticed that food can also play an important role in the short stories of R. K. Narayan.

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# Impact of Agricultural Development on Natural Vegetation In Shirala Tahsil: A Geographical Study

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## Introduction: -

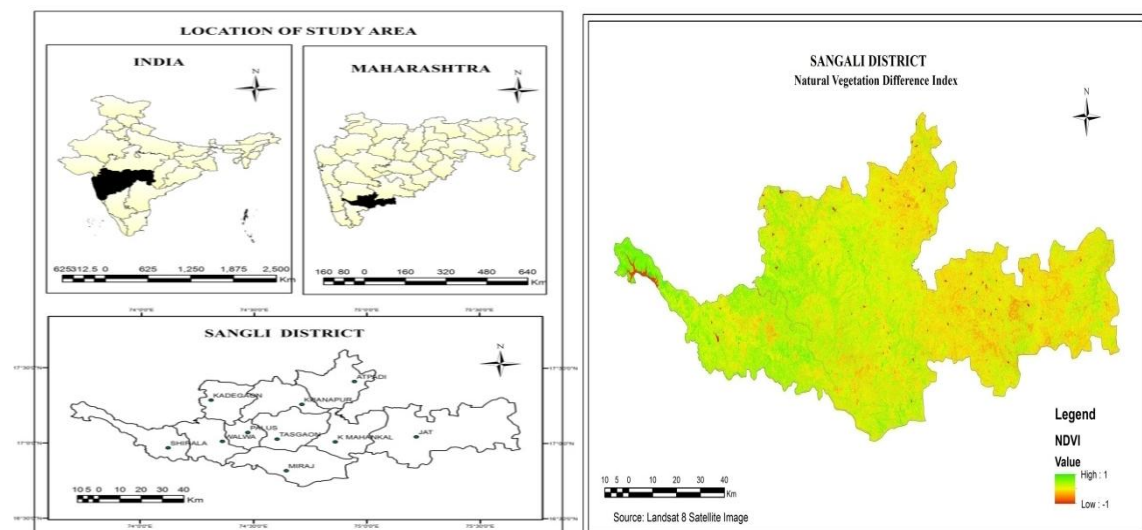
One of the impact factors on environmental degradation is a use of forest area for the agricultural purpose. In such practices lot of forest area encroached, it starts with the cutting of trees. Demolishing all signs of structures of the forest has its impact on ecosystem also. Meanwhile structured and proposed roads like national, state roads/highways; proposed industrial areas have the similar impact on the natural habitat of various species also. So in this chapter, all these aspects which are having the impact are considered. As per the authorized survey by forest department have been considered, the conclusion of this chapter results on these types of surveys in Shirala District. Forest loss and degradation are particular problems for conservation biology because forests are some of the most species-rich environments on the planet (Lindenmayer and Franklin, 2002), particularly for birds (Gill, 1995) and invertebrates (Erwin, 1982; Majer *et al.*, 1994). The United Nations Food and Agriculture Organization reviewed global forest clearance and found that between 1990 and 2000, the average rate of forest loss was 16.1 million hectares per year (FAO, 2000). Out of this, 14.6 million hectares were lost through deforestation and 1.5 million hectares were lost through conversion to plantations each year. Although there were some net gains in forest area through plantation establishment and the natural expansion of forest, these were small in comparison with the overall rate of loss, particularly in tropical countries. These estimates do not include the loss of the millions of hectares of forest that are burned annually rates of vegetation clearance are likely to be associated with the size of the human population, developments in technology, and per capita consumption of resources.

## 1. Significance Of Research Work: -

Vegetation is a key component of an ecosystem and, as such, is involved in the regulation of various biogeochemical cycles, e.g., water, carbon, nitrogen. Vegetation converts solar energy into biomass and forms the base of all food chains. Vegetation provides direct (e.g., timber) and indirect (e.g., watershed protection) socioeconomic products and services for humans. Vegetation gives spiritual and cultural experiences to some people.

## 2. Study Area: -

The Selected area for the present investigation is the Shirala district of Maharashtra state containing shiralatahsils in Shirala district such, Shirala. Shirala is one of the southern Districts of Maharashtra lying between 16°43' and 17°38' north latitude and 73°41' and 75°41' east longitude and has an area of 8,572 Sq. Km (2.78% of State) and population of 28, 22,143, (2.51% of State (2011).



## Objectives: -

1. to study the impact of agricultural development on natural vegetation in study area.
2. To study the forest conservation and suggest appropriate measures in the study area.

**Database And Methodology: -**

The present research work concentrates upon the analytic view to find out and measure the Impact of agriculture development on Vegetation resources in the study area. The period for present investigation is considered from 1990-91 to 2010-11. In the present study, The Vegetation details are collected from the forest department of the study area, and Tahsilwise details of vegetation are also analyzed. The collected primary data has been processed through the appropriate statistical techniques like Mean, Median, Mode, Average, Standard Deviation, and whenever necessary used Graphical presentation where required.

**Composite Index of Development: -** The method adopted to determine the levels of development involves two stages. To give a complete index of development,

$$CDi = \frac{Pi}{PI}$$

Where,

CDi = the co-efficient of development for variable 'i', Pi = %age of variable 'i', PI = mean %age of variable 'i' in the whole region.

$$CID = \frac{CDi1 + CDi2 + CDi3 + \dots + CDin}{N}$$

Where,

CID = Composite index of development

N = Number of variables.

i= Variable

**Levels Of Agricultural Development****Moderate Level of Development: -**

In Shirala, Tasgaon the progress of the development is witnessed and In Jat and Khanapur there are few areas which are irrigated but not for a larger area covered in irrigation and few pockets where the agricultural development took place. Calculated composite index of ten tahsil out of which Shirala, tahsil has shown progress in agricultural when few effective factors play major role in the development such as deep, black soil, intensive cultivation and assured water supply and sugar, dairy farming and other small-scale and larger-scale factories.

**Table- Composite Index of Development and levels of Development**

Sr. No.	1990-91			2010-11		
	Tahsil	CID	Level of Development	Tahsil	CID	Level of Development
5	Shirala	8.17	Moderately High Level of Development	Jat	9.34	Moderately High Level of Development

(Source: - Calculate by Researcher)

Below 8 low lower Level Above 8 Moderately High Above 10 Higher Level

**Tahsil Wise Total Area Under Forest: -**

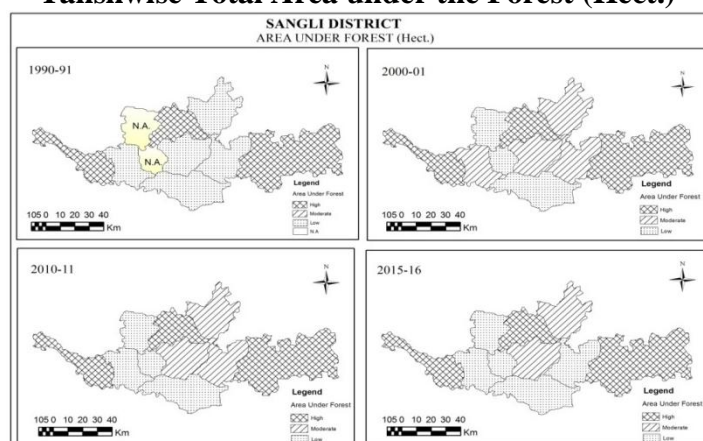
For the Comparative analysis of Tahsil-wise total area under forest cover the period of 20 years has been considered i.e., 1990-91 to 2010-11.

**Table- Tahsil wise Total Area under the Forest (Hect.)**

Sr. No.	Tahsil	1990-91	2001-01	2010-11	2015-16
1	Shirala	15122	15096	13122	12127

(Sources: - Forest Department Shirala)

### Tahsilwise Total Area under the Forest (Hect.)



#### i) Change In the Forest Area: -

To analyses, the decrease in the percentage of forest area following table is concerned.

**Table - Forest Area in Hectors (1990-91 to 2010-11)**

Sr. No.	Tahsil	1990-91	2001-01	Forest Area decrease (10 Years)	2001-01	2010-11	Forest Area decrease (10 Years)
1	Shirala	15122	15096	26	15096	13122	1974

(Sources: - Forest Department Shirala)

#### ii) ShiralaTahsil: -

In the year 1990-91 forest area in this tahsil is 15122, it decries in 26 hect. Within 10 years and followed decries i.e.1974 hect. In next 10 years (2010-11)

#### iii) Villages Forest Area: -

Shirala Tahsil and within these 75 Villages are in the year 1990-91 and number of villages having forest area cover and it decries has been indicated through the table Agricultural is the main source of income within these villages' expansion of land for cultivation of crops in these villages indicates the decrease in forest land.

**Table- Forest Area under the Villages in 1990-91 to 2010-11(Hect.)**

Sr. No.	Tahsil	No. of Village (1990-91)	Total Forest	No. of Village (2000-01)	Total Forest	No. of Village (2010-11)	Total Forest
1	Shirala	75	15122	69	15096	44	13122

(Sources: - Forest Department Shirala)

Within these tahsils, the highest forest land cover is in Shirala tahsils i.e. 15122hect. It is decried within 20 years and in the year 2010-11, it has remained 13122 hect.

#### Current Change In Forest Area: -

Agricultural pressure on the forest area of Shirala district has been increased; Pressure of Population, transportation and settlement are responsible for the degradation of forest area in shirala tahsil within the period of 5 years, Rapid development in agricultural sector result into decries in the forest area of shirala tahsil.

**Table - Tahsilwise Forest Area Decrease 2010-11 to 2015-16**

Sr. No.	Tahsil	Area under Forest (in hectares) (2010-2011)	Area under Forest (in hectares) (2015-2016)	Decries Area (in hectares) 2010-11 to 2015-16
1	Shirala	13122	12127	995

(Source: - Forest Department Shirala District 2010-11)

#### Exploitation Of Vegetation: -

Accessible forests are exploited as per the prescription of the working plans. Those forest areas lying in the extreme West of Shirala Mahal are inaccessible and hence have so far not been exploited.

Islampur by virtue of its central location is the principal market for the forest produce of Shirala district. Wild Animals in Shirala district forests are mostly confined to the Western portion of Shirala Mahal and wild animals are met within these areas. To preserve wildlife shooting (photography) of wild animals and bird's is licensed and to regulate this shooting blocks are created.

**Table - Output and Value of Forest Produce**

Year	Production of major and minor forest produce						
	Timber		Fuel		Grass and grazing	Other products	Total value in Rs.
	Quantity in the cubic meter	Value Rs.	Quantity in the cubic meter	Value Rs.	Value Rs.	Value Rs.	
1	2	3	4	5	6	7	8
1990-91	40897	11556435	11764	2,154,367	570,567	1175674	15,457,043
2000-01	82456	23654723	23,564	4923876	329768	642,098	29,550,465
2010-11	1,02,365	28570956	29,875	6589421	155463	365324	35,681,164

(Source: - Forest Department Shirala District)

### Causes Of Vegetation Degradation In Shiralatahsil:

#### 1. Agricultural Development: -

The decrease in forest area purposed at use it for an agricultural purpose; with strong influences of traditional agricultural practices had its negative impact on local natural vegetation for a long time. Natural forest vegetation change into the vegetation like sugarcane, Soybean, wheat, rice, cotton grapes enhanced all co-related development such as construction of road for transportation; uniform picture of along with the Western Ghats of entire Maharashtra is now witnessing the increase of agricultural land and emergences of sugar factories by demolishing sings of flora-fauna of forest. It is observed that the cultivation further damages soil profile and nutrients through the Mono-cropping pattern. Thus, causing an irreversible and permanent impact on the already fragile and eco-sensitive biodiversity. This is possibly an eco-friendly alternative to green the cultivable Wasteland and barren slopes of the plain and hills. Provided, the tea, mango,

Coconut, of Eugenia jambolana (Jambhul), Memeoylonedule (Anjani), Actinodaphne hookeri (Pisa), Artocarpus integrifolia (Phanas), Terminalia chebula (Hirda), Ficus religiosa (Vad), Mangifera indica (Amba), Lagerstromia lanceolata (ana), Sideroxylon tomentosum (Kumbhal), Ficus glomerata (Payer), Samalia m labaricum (Sawar), Dellenia pentagyn (Karambal), Gerwia tiliaefolia (Dhaman), Ranwolfia densiflora (Hakaya), Olea dioica (Parajambul), Terminalia balerica (Beheda). Plantations may not encroached forests land owned by government authority. On Agricultural area presently under the sugarcane cultivation, it could be a welcome difeco-friendly alternative changed in Agricultural land and practiced

**Table- Agricultural Area Increase 1990-91 to 2010-11**

Sr. No.	Tahsil	Agricultural area in Hect. (1990-91)	Agricultural area in Hect. (2000-01)	Agricultural area in Hect. (2010-11)
1	Shirala	44532 (6.75)	51312 (7.20)	54347 (6.42)

(Source: - Forest Department Shirala District)

#### 2. Road Development: -

The Road development is key factors of development for transportation in any region; agricultural development depends upon the availability of road

**Table- Road Length Increase in 1990-91 to 2010-11**

Sr. No.	Tahsil	Road Length in km (1990-91)	Road Length in km (2000-01)	Road Length in km (2010-11)
1	Shirala	789.16(10.06)	897.11(10.17)	995.16(9.30)

(Source: - PWD)

#### 3. Growth of Population: -

The population is increased and mainly urban population is increased forest population pressure is seen on land; as well as Agricultural practices Created the problems of environmental degradation in the study area, in the study area

**Population Increase in 1990-91 to 2010-11**

Sr. No.	Tahsil	Population Growth(1990-91)	Population Growth(2000-01)	Population Growth(2010-11)
1	Shirala	148936 (6.74)	158298 (6.13)	162911 (5.77)

(Source: - Indian Population census)

#### **4. Industries Development: -**

Industrial development in the study area has its impact on vegetation; the following is table about the increase of industries in the study area from 1960 to 2017.

**Table- Industries Development**

Sr. No	Year	No of Industries	Percentage
1	1960	67	1.129
2	1991	519	8.748
3	2000	619	10.433
4	2010	794	13.383
5	2016	901	15.186
6	2017	955	16.096

(Source: -Shirala District industrial Department)

#### **Analysis Of Forest Area Decrease In Study Area: -**

The table is about the decrease of forest area within three decades; the total forest area cover is 15122 in 1990-91 it is decreased by 15096 hect. In thousands with the period of decades: still, it is continued in 2010-11 13122 hect. Area of forest cover is reduced with decades from 2000-01 to 2010-11.

**Table - Forest Area Decrease in 1990-91 to 2015-16**

Sr.No.	Tahsil	1990-91	2001-01	2010-11	2015-16
1	Shirala	15122(24.64)	15096(25.46)	13122(24.93)	12127(24.58)

(Source: - Forest Department Shirala District 2015-16)

#### **Conclusion: -**

It is observed that the biodiversity in the study area is a threat of being lost of its once pristine natural status unless immediate action is taken to protect the forest habitats and restored its resilience on the sustained basis with local people participation. The extensive rate of commercialization of local resources, such as for has to lead to extraction for fuel wood through deforestation, is putting stress on the carrying capacity of the local forest. The present rate of utilization and exploitation of fuel wood and green biomass by the locals is unsustainable and can pose major threat to the existing natural vegetation on the forest as well as private land in the shirala tahsil Forest area This is possible and preferable if eco-development related regional government development policies are carefully implemented by taking local population in confide and with their involvement. Today is vegetation is valued elements to the environment and human life.

#### **Suggestions-**

1. Organization of training Programmers, workshop, Conference, seminars would provide proper platform to farmers.;
2. Eco-friendly remedies should be adopted for the control of pesticides, insect, Biopesticides like canker-worm; Provision of tahsil-wise' agro-clinic' helps farmers regarding awareness of health of fields.
3. Equal and active Participation, as well as Voluntary participation of NGO'S, NSS, NCC students, local Youth clubs for tree plantation and social forestry programmes (*shat kotivrukshlagvad*) result into greenery in whole study area.
4. Dairy industry, Fish Farming, Poultry farming, horticultural industry, Goat-sheep breeding these are avocations related to agriculture should be concerned in study area.
5. EIA should be adopted to measure the impact of agricultural development on Environment.

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# **Ecological Sustenance and Rewilding: A Dystopian Reading of H.G. Wells The Time Machine**

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## **Abstract**

A basic tenet of a human being's innate goodness is how he/she perceives the surrounding world. The magnitude of alienation from nature and the extent of mediated life is colossal. Falling away from primitive origins has led, finally, into an abyss of artificially reproduced existence and meaninglessness. Human beings are a biological species belonging to a particular taxonomic order and characterised by certain physiological functions. But humans are the only type of creature that can be characterised as a moral agent because each aspect of our existence from general life pattern to specific rules, even to a question of whether to continue to exist as a species or not is allegedly open to deliberation and choice. But, due to the selfish motives, a situation is formed where 'human centeredness' is given priority rather than considering nature as the supreme sole of our existence. By the term 'rewilding', we mean a return to a more wild or natural state and it is a process of undoing domestication. Supporters of rewilding argue that through the process of domestication, human wildness has been altered by force. Using H.G. Wells' classic: *The Time Machine* as a tool, we attempt to prove the importance of Rewilding theory as an effective resistance against the exploitation of nature and its living organisms.

## **Key Words**

Dystopia, Biocentric, Ecocriticism, Rewilding

## **Introduction**

The research paper attempt to enquire into the consequences of a dystopian future and show how the concept of 'rewilding' can act as an effective tool against the ill effects of the present society. Green anarchists and anarcho-primitivists highlight the tension by arguing that civilization is an inherent threat to nature as a whole and to the wildness of nature as humans. Rather than ignore the fall or accept it as irrevocable, green anarchists insist that it is not just possible, but necessary to re-imagine and return to an existence embedded in unity with the living flux of reality, the life world common to all existence. At the center, the fall is the rending of simultaneity with nature. The pre-theoretical affective experience of the life world was disrupted by basic, reified abstractions most fundamentally notions of space and time. The fall is the substitution of abstraction for lived experience, mediation and control for immediacy and intimacy. It is on the basis of this psychotically violent rupture of "Man" and nature that the systematized violence of civilization against human and non-human nature precedes.

Primitivists prefer to completely eliminate all forms of symbolic culture and typically, regard the problems inherent within a form of communication and comprehension that relies primarily on symbolic thought at the expense of other sensual and unmediated means of comprehension. The emphasis on the symbolic is a departure from direct experience into mediated experience in the form of language, art, number, time, etc. They state that symbolic culture filters our entire perception through formal and informal symbols and separates us from direct and unmediated contact with reality. It goes beyond just giving things names and extends to having an indirect relationship with a distorted image of the world that has passed through the lens of representation.

## **What Is Rewilding?**

According to the American anthropologist Harold Barclay, "Anarchy is the order of the day among hunter-gatherers. Indeed, critics will ask why a small face-to-face group needs a government anyway. If this is so we can go further and say that since the egalitarian hunting-gathering society is the oldest type of human society and prevailed for the longest time period-over thousands of decades-then anarchy must be the oldest and one of the most enduring kinds of polity. Ten thousand years ago, everyone was an anarchist." John Zerzan, an important theorist in *rewilding* adds the most academic voice. While his writing style is the least accessible, his critique is by far the deepest. He seeks the root of all domination, and this path leads him deeper into prehistory than even the origins of agriculture. Art, language, number, time and even symbolic thought have been subjects of Zerzan's interrogation. For him, each of those serves to mediate humans from direct experience of the world. According to him, civilization was a mistake that has had disastrous consequences of human and non-human life and it will continue to wreak havoc until people decide to stop it or until it collapses under its own weight. After one of these events

occurs, the planet will finally be able to begin recovering from ten thousand years of human domestication. Rewilding seeks to analyse wild life that is free from that seems to be doing its best to destroy the planet, a life that humanity successfully realized for nearly all of our time on this planet. What this entails in the modern society context, is a small scale society that is independent from the global industrial economy, but said society would also not be restricted by the modern constraints of property and imaginary borders. It would be self-sufficient, subsisting successfully on the local land as well as any scraps which civilization provides. It would lack the desire to control or subdue the life forms upon which it depended. But most importantly, such a community would have a visceral sense of and relationship to a physical place. John Zerzan's works mainly criticize agricultural civilization as inherently oppressive, and to advocate drawing upon the ways of life of hunter-gatherers as an inspiration for what a free society should look like. Some subjects of his criticism include domestication, language, symbolic thought and the concept of time. Zerzan's theories draw on Theodore Adorno's concept of negative dialectics to construct a theory of civilization as the cumulative construction of alienation.

### **Dystopian Society In The time Machine**

The time traveller in the novel *The Time Machine* narrates how the future society, expected to be more civilized and cultured, actually become more primitive in their nature and class structure. The inherent tendency of people to move closer towards nature in order to be innocent and free of problems can be observed in the novel. This can be the result of exhaustive nature of the previous capitalist class structure. When we consider the writer's own time, London is the archetype of the nineteenth century industrial city filled with miserable workers and rich industrial leaders. H.G. Wells, like most Englishmen, was very conscious of the class status and at the same time, he was also concerned with the consequences of this imperfect system. Also, the superior attitude prevailed by the civilized society can clearly be seen in the novel *The Time Machine*. The opening of the book brings its Victorian luxury to the foreground in part as a contrast to the fanatical nature, the story about to be told and in part to highlight the comfort of the upper class from which man's future evolution begins. The technologically advanced so called civilized society's attitude is reflected through 'the time traveller'. The devotion and innocence of the Eloi people can be contrasted with the attitude of the narrator who considers those people as inferiors or specimens to be explored and studied:

Then I heard voices approaching me. Coming through the bushes by the white sphinx were the heads and shoulders of men running. One of these emerged in a pathway leading straight to the little lawn upon which I stood with my machine. He was a slight creature-perhaps four feet high-clad in a purple tunic, girdled at the waist with a leather belt. Sandals or buskins-I could not really distinguish which-were on his feet; his legs were bare to the knees, and his head was bare. (Wells 42)

The glorification of nature is an important theme in the Romantic writings of the 18<sup>th</sup> and 19<sup>th</sup> centuries, especially in the writings of Jean Jacques Rousseau and writers like William Blake. It reaffirms the basic tenet of man's innate goodness and is reflected in the Eloi people discussed in the novel. Even though they belong to the cruel upper class ancestors, they seem to be very calm and friendly and do not take part in any cruel deeds. Even the Morlock people who feed on Eloi cannot be considered as cruel, but they do this act for their survival. Moreover, the harsh and cruel conditions they had to face in the previous ages may have made them to act in a more harsh and aggressive manner. Since the author is a product of the Victorian age, an attempt to predict the after effects of problems faced at that time might have motivated him to depict the future society in an ordinary setting which stands closely towards the nature. The exhaustive and destructive nature of technology and comforts ultimately lead to the situation depicted as the future. In short, the anxiety prevailed by HG Wells about the degrading, destructive and exhaustive Victorian class structure forced him to impart anarcho-primitive elements in the novel *The Time Machine*.

### **Conclusion**

The human mind filled with the dead abstractions is cut away from the world which becomes a plane of objects, ready for appropriation. Our embodied perceptions are severed from our own earthly relations in a mineral, animal and plant kingdoms and even from the body of Mother Earth. The point I would like to make here is that by resisting against the dystopian future, we are not made to move to primitive culture by abandoning the present society completely. But instead, the old primitive texts and tribes can be brought under close examination in order to impart their experience into our lives. However, people object that luxuries and privileges enjoyed in the society are not seen in the primitive cultures. But, we have to note that more luxuries and comforts can lead to more problems and complexities. According to Socrates, "The secret of happiness, you see, is not in seeking more, but in developing the capacity to enjoy less". The idea of limits of happiness and pain are determined by the human mind which can vary among individual. The society plays an important role in shaping these aspects that later controls the thoughts and expressions of



an individual. Therefore, like religion, which plays a crucial role in developing spirituality, theories like 'rewilding' have the ability to hold on to the innate virtue of human beings by hindering the evil elements of the civilized society up to an extent.

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## **Dalit Women's Labor: Issues of Caste, Gender, Dignity and Human Rights**

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### **Abstract**

The present research paper aims to study Dalit women's labor in the contexts of caste, gender, dignity and human rights. Dalit life narratives are replete with account of hard working Dalit women labors. The researcher will try to explore the above contours in the select Dalit life narratives. India is multicultural nation with her amalgam of religion and people. Her long traditional history of Vedic foundation of Hindu religion and scripture maintained class structure based on occupations/labor. Dalits, especially Dalit women are the victims of class, caste and gender. Working in unorganized sector, they are devoid from any kind of benefits (social, economical, medical) and have to perform menial works as a result their labor rights are violated. Dalit writers like Bama, Y.B. Satyanarayana and Guneshekar depict the labor concerns of Dalit women in their life narratives and asks for their human rights and dignity.

**Key words:** Dalit women, Caste, Gender, labor, human rights, Dignity

### **Introduction:**

India is multicultural nation with her amalgam of religion and people. Her long traditional history of Vedic foundation of Hindu religion and scripture maintained class structure based on occupations/labor. The duality of labor clearly divided labor entity into white color and menial jobs, consequently segregating society into upper caste and lower caste. The division of people based on labor hierarchy pushed Dalits at the bottom of social pillar. The pushing at labor marginality obviously forced them to do menial works that has a little work value in society.

### **Caste: A crucial basis of the social Divide:**

Caste has been an inherent mark of Hindu society. It is a deep rooted thought which has a perspective of casteist mindset that is unable to transcend caste barriers even in globalized era. Ours is a republic state where Indian constitution grants equal treatment irrespective of caste, class, religion, language, culture etc. However Dalit women have been facing discrimination in respect with above structures. The caste has concertized social division of Indian society. India is multicultural nation with her amalgam of religion and people. Her long traditional history of Vedic foundation of Hindu religion and scripture maintained class structure based on occupations/labor. This is explained clearly by Magdum thus, "The first group was made of Brahmins (priests). They came from Purusha's mouth, and were to provide for the intellectual and spiritual needs of the community. The second group was called the Kshatriyas (warriors and rulers). They were created from the arms, and were to rule and to protect the others. Vaishyas (landowners and merchants) sprang from Purusha's thighs. This group was in charge of trade and cared for agriculture. Shudras (artisans and servants) came from the feet. They had to do all the manual work". [Magdum: 2009: 7-8]

### **Concoction between Caste and Labor:**

According to Nicholas Dirks, Caste is, "a specter that continues to haunt *the social history of India*" (Italics mine) (17). The above comment is apt in regard with Dalit women laborers. Dalits women laborers are at the bottom of social hierarchy and are the victims of economic deprivation (class) untouchability (caste) and patriarchy (gender). The UN Special Rapporteur's 2013 report on Violence against Women explains that Dalit women are "at the bottom of the political, economic and social systems, and they experience some of the worst forms of discrimination and oppression - thereby perpetuating their socio-economic vulnerability across generations." (<http://idsn.org>)

Different societies have different perspectives, thoughts and ideas regarding labor. Both in colonial and modern India dominant power structure and ideologies look contemptuously towards manual work. They privileged non- manual work and degrade Dalit labor. It is labeled as filthy and 'dirty work' attaching it to impurity. (Hughes, 1958) Consequently, Dalit women being manual labors became objects of prey for the upper caste structure.

### **Dalit women's labor: Delineation of Gender Discrimination:**

Gender is that demon that haunts female from her birth that marks its reverse impact in their social, cultural, political and economic subjugation. The matter even functions negatively and worse in

reference to Dalit labor workers. The contemptuous approach of dominant power structure concretized subjugation of Dalit women's labor, especially in rural area. They were forced for manual labors, which have less social value. Their works start early in the morning till sunset. They have to perform household duties that include collecting water and fuel for daily use, preparing food, daily wage labor, agricultural work scavenging, cleaning etc. In the violation of labor rights, gender plays a vicious role. For equal work, equal pay is denied to women workers just because of gender bias. Dalit women are daily wage labors and agricultural workers. Dalit women are forced to do physically straining and menial types of works and in many cases their labor rights are violated. They have to do hard work for long hours, without break for lunch, with no control of time limit and with little choice regarding working conditions and wages. Low wages, excessive work and exploitation of all sorts are the problems before Dalit women. The point of low wage gets reflected when observes Rekha Ojha, thus, "In most of the state Dalit women workers are paid unequal wages for equal work; it means Dalit women are paid lower wage for a similar work than that of male workers. In most of the state minimum wage act is introduced but minimum wage rate is not provided to Dalit women workers." (82).

Gender is the hurdle that labels Dalit women's work as sub-standard, low graded. Productive labor (masculine) is considered superior to reproductive (feminine) on the basis of sex. As a result woman's household duties-child bearing, cooking etc. -is regarded as second-rate, worthless and mean. The economic matrix of women labor is well explained when V. Geetha, put forth thus, "Women's work is considered always and already of low economic value. This is because it is considered Supplementary to the work done by men. Women work, it is believed, because the family needs them to, not because they are 'naturally' workers as men are. This means that a woman worker need not be paid the same tasks. The assumption here is that a man is paid a 'family wage', since it is believed that he is the family's sole breadwinner and needs to be paid an amount that would not only sustain him but his family as well. A woman worker, since she is not a breadwinner but only helping to make ends meet, could consequently be paid less." (p. 67) Unlike caste woman, Dalit woman have to perform double duty- household and outside labor. Through his words, Y.B. Satyanarayana reveals the point, "in untouchable families, it was common for girls to learn every kind of work at home and to even accompany their mothers to work in the fields by the age of eight or nine." (Satyanarayana: My Father Baliah 32)

#### **Dalit women Laborers: the most peripheral subjectivities**

The pollution-purity matrix of upper caste structure is responsible for the social exclusion of Dalit women workers. Dalit life histories document this account of hard working women laborers. Bama aptly focuses on the toils and troubles of Dalit women laborers when she observes, "From the moment they wake up, they set to work both in their homes and in the fields. At home they are pestered by their husbands and children; in the fields there is back-breaking work besides the harassment of the landlord. When they come home in the evening, there is no time even to draw breath. And once they have collected water and firewood, cooked a Kanji and fed their hungry husband and children, even then cannot go to bed in peace and sleep until dawn. (Bama: Sangati 22). Dalit women laborers have to do seasonal jobs to live their life. This is realistically narrated by Gunasekaran in his autobiography *The Scar*. He narrates, "During monsoon months she [mother] would cut grass and sell to the Muslim houses." (Gunasekaran: 10)

The patriarchic power structure has been one of the barriers in economic deprivation of Dalit laborer women. She is not given enough space restricting her in four walls of home. Gunasekaran narrates the account of his mother's economic deprivation. His mother was educated and had opportunity to do government job but his father opposed and kept her away from job. Gunasekaran says, "My mother had been educated, even in those days, up to eighth standard at Schwartz School in Ramanathapuram ... Our father did not allow my mother to take up a government job." (ibid 8)

#### **The problem of Dalit women's labor and Dignity:**

The Merriam Webster dictionary defines the term 'dignity' as the quality or state of being worthy, honored, or esteemed. The dignity is an entity for which each human being aspires for. This is a focal point of human existence which demands and believes in co-existence and respect of other human being. It accords with the principle of take respect and give respect. However the damage of dignity demoralizes person and affect his/her psyche. The psychic damage paralyses human confidence and turns into inferior complex.

International institutions such Human Rights Commission upholds principle of human dignity for proper development of human being. Even the principle of dignity has mentioned in preamble of Indian constitution. However the picture is not rosy in respect of the dignity of Dalit women workers. Their dignity is damaged in every regard considering them and their labor as second grade. Indignity is exhibited at them on order to prevent Dalit's from asserting a sense of citizenship and equality (Guru, 2013). As a

result their human existence gets injured. Dalit autobiographers problematize the issues of injured dignity of Dalit women.

### **Human Rights and Dalit Women labors:**

Human rights are the basic rights essential for human development. They grant equal treatment to people irrespective of nationality, religion, language, sex, caste, class etc. These rights are related with life, liberty, equality and dignity of the individual. United Nations' Universal Declaration of Human Rights state that, all human beings are born with equal and inalienable rights and fundamental freedoms and the United Nations is committed to upholding, promoting, and protecting the human rights of every individual. This commitment stems from the United Nations Charter, which reaffirms the faith of the peoples of the world in fundamental human rights and in the dignity and worth of the human person.

India is a republic state where Indian constitution grants human rights. The fundamental rights in Indian Constitution are considered as Human Rights. Articles 12- 35 of constitution speak for Human rights. However Dalits especially Dalit women workers are discriminated, humiliated, oppressed in terms of freedom and rights. Their rights are violated on the axis of caste, gender, culture, etc. The discrimination based on these issues pose a question of their dignity and rights. The depiction of violation of rights and dignity is well expressed by Dalit autobiographers.

### **Conclusion:**

The catalytic agents such as caste and gender are responsible that dilutes social, economic, political and cultural life of Dalit women workers. These factors pushed them on fringes. The division of labor hierarchy forced them to do menial works that has a little work value in society and is labeled as second grade. This lower economic gradation of their labor damaged their dignity. The above axes are the tools of their exploitation. Dalit women workers are discriminated, humiliated, oppressed in terms of freedom and rights. Their human rights are violated under one or other pretexts. Dalit Autobiographies depict candid picture of Dalit women laborers and questions violations of their human rights. They ask for their human rights and dignity as human being.

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# Hierarchical Distribution of Health Care System in Satara District: A Geographical Analysis

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## Abstract

Public health is defined as the "science and art of illness prevention," with the goal of extending life and improving quality of life via concerted efforts and educational choices made by communities, organizations, and the business sector. The body is more than simply the absence of sickness or the interdisciplinary field; it is also the absence of disease and the interdisciplinary field. Epidemiology, biostatistics, social sciences, and health-care administration are all intertwined. Environmental health, community health, behavioral health, health economics, public policy, mental health, health education, workplace safety, gender issues in health, and sexual and reproductive health are some of the other major sub-sectors. Public health is defined as the "science and art of illness prevention," with the goal of extending life and improving quality of life via concerted efforts and educational choices made by communities, organizations, and the business sector. The body is more than simply the absence of sickness or the interdisciplinary field; it is also the absence of disease and the interdisciplinary field. Epidemiology, biostatistics, social sciences, and health-care administration are all intertwined. Environmental health, community health, behavioral health, health economics, public policy, mental health, health education, workplace safety, gender issues in health, and sexual and reproductive health are some of the other major sub-sectors. General public health activities include teaching the right way to wash hands, breastfeeding, vaccinations, suicide prevention, body hygiene, good eating habits, etc.

## Introduction:

Any Disease come from food, destroy the functioning of Human body "Disease is a specific symptoms and problems of all body and particular part of body. After the origin of earth and environment, human existed on earth. From existence, food, shelter and water is the basic need of human has completed from the environment. Life of human becomes restful but has involved the several problems is referred as disease and depict the functioning of human body in fact, diseases have originated dominantly and increased after the industrialization mainly in the developed countries. The industrialization has resulted high concentration of industries in the geographical area of country. Those industries have produced the all pollutions like air pollution, sound pollution, water pollution, soil pollution etc. in this paper we study the Typhoid affected people in the study area and find impact of malaria diseases in Satara District. This proposed study is based on the collection of data from health care centers, hospitals and extensive field survey by the statistically tabulated, interviews, questionnaire method. In Satara district 1 Civil Hospital, 2 Sub district Hospitals, 15 Rural Hospitals 72 Primary Health centres, 400 health sub centres established. The number of health centres increased according to growth of population. In 2001, the available health facilities in Satara were less, but in 2011 the situation was changed Satara District has average availability of government medical facilities. In the early the criterion of one primary health centre for 3000 population and one sub centre for 5000 populations was established in Satara district

## Study Area:

Satara district is one of the leading district of Western Maharashtra. It is situated in the western part of the State and lies between north latitudes 17° 05' and 18° 11' and east longitude 73° 33' and 74° 54'. The total area of the district is 10480 sq. km. The district is bounded in the north by Pune district on the east by Solapur district, on the south by Sangli district and on the west by Ratnagiri district of Konkan region. Sahayadri hills of western ghat forms the western boundary, while Nira River forms the northern boundary of the district

## Objective:

- 1) To study the rural Hierarchical Distribution in the study area.
- 2) To study the urban Hierarchical Distribution in the study area.

## Database & Methodology:

Majority of primary data regarding medical facilities in civil hospital and Z.P. office Satara District is collected through field work. e.g. Field visits, Interviews with local and officials. The secondary data will be collected through related reference books, magazines, journals, and published Govt. Report, Newspapers, Other media reports and relegated websites. Appropriate statistical method & cartographic technique are used for analysing. Arc GIS software used to Creating map

### Hierarchical Distribution of Health Care Centers

The geographical distribution of any areas used by economists, social scientists, researchers, and students of various disciplines. According to Chris Taller, a hierarchical class system is inevitable in a spatial mode of central places that belong to one or the other.

#### Hierarchical Distribution of Health Centers in different order.

Tahsil	I <sup>st</sup> order	II	III	IV	Total
Mahabaleshwar			1	3	4
Wai			1	4	5
Khandala			1	3	4
Phaltan		1	1	6	8
Man			1	5	6
Khatav			3	7	10
Koregaon			2	6	8
Satara	1		0	7	8
Javali			2	5	7
Patan			2	13	15
Karad		1	1	11	13
Satara District total	1	2	15	72	90

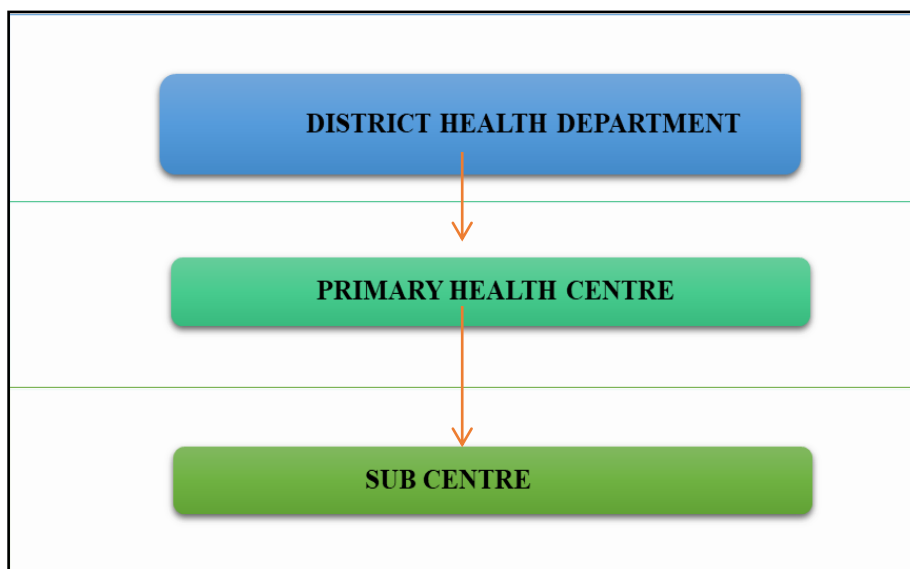
**Source: Computed by Researcher**

Table shows that government health centers in Satara district have been distributed into four orders of hierarchy. Those are decided on the basis of patients, especially on the basis of beds available in each hospital. The first order hierarchy includes the District Civil Hospital, consisting of more than 300 beds. However, it is the central unit in health services which consists of 1. Second-order hierarchies include sub-district hospitals in the district consisting of 50 or more beds. Those include Karad and Phaltan. Third order hierarchies include rural hospitals in the district, which consist of 30 beds. These consist of 15 rural hospitals in the district. Fourth order hierarchies consist of primary health centers with 6 or more beds. They come under the present group, which consists of 72 PHCs.

#### Hierarchical Distribution of Rural Health Care Systems in Satara District:

Z.P. is an important Local Self-Government institute which provides rural health facilities. The Primary health centers are part of the referral units of district health facilities. A medical unit is important in medical facilities such as primary health centers. It is an important point between the RH and Health sub-centers. There is a need for implementation in PHC. In early 1961, programmes in primary health care, schooling, and other social sectors were given to the Zilla Parishad. In Maharashtra, the first state to establish the norm of one primary health care center for every 3000 people, and one primary health care center for every 20000 people in tribal areas. These health centers have two doctors with two beds each, who provide health facilities to the villagers first. PHC implements all national programmes and schemes in public health and family welfare. Their focus areas are selective disease control, family planning services, and vaccinations for newborns and pregnant women. Thus, doctors in PHCs play an important role, but they cannot provide adequate medical services due to inadequate support for PHC level services.

### **Hierarchical distribution of Rural Health Care System in Satara district**



According to Fig the Maharashtra government has established the criteria of one sub-center for every 5000 people. It works at the root level. Four to five SCs work under the guidance of each PHC, which has a male and female health worker who implement the entire preventive and promotion programmes under PHCs. Maharashtra currently has 9725 health sub-. At present, the Satara district has 400 sub-centers which work effectively. It is a decentralized unit at the gross root level, and it is important to focus on health sub-centers also.

### **Hierarchical Distribution of the Urban Health Care System in Satara District:**

In the urban health care system, the District Civil Hospital is the primary hospital for all types of diseases and accident patients. The district civil hospital is the higher authority at the urban level. It provides services to all civil hospitals that provide the most basic specialties. In Maharashtra, there are 23 civil hospitals in the state with 6723 beds. These hospitals are care centers for referral medical services for rural cities, in addition to catering in district cities. Patients from primary health centers, rural hospitals, and sub-district hospitals have been referred to district civil hospitals. The district civil hospital has handled a large portion of the recruitment and responsible work. In Satara District, the government medical college and hospital is another unit working under the district civil surgeon. Therefore, the hierarchical distribution of civil health centers is different from that of rural health centers.

### **Hierarchical Distribution of Urban Health Care System in Satara district**

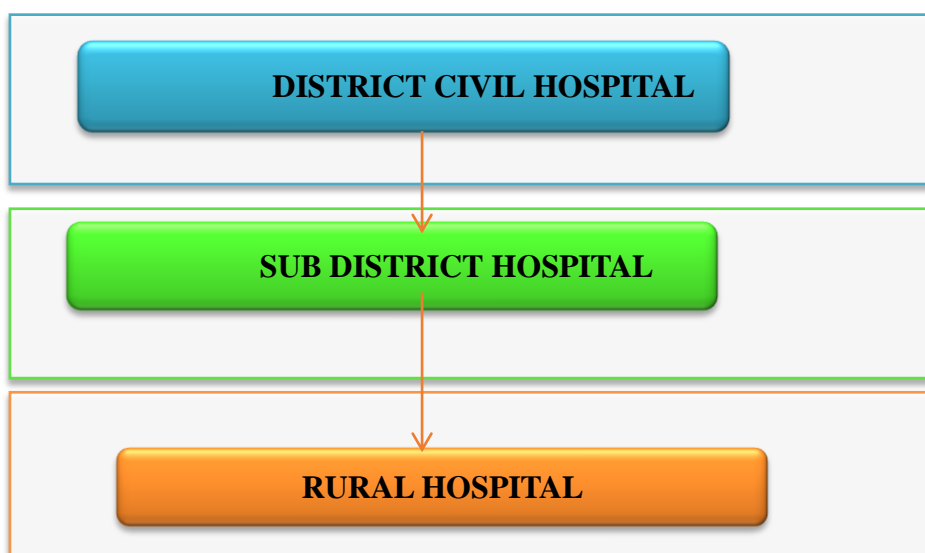


Figure shows that in Maharashtra there are 5 primary health centers and 1 rural hospital. According to the government's criterion, 1 RH for every 1 lakh population. The rural hospital works under the guidance of the district civil surgeon. In the 1980's, rural hospitals or community health centers were established by upgrading some of the older PHCs under the Minimum Needs Program as part of the expansion of rural health infrastructure. The idea was to make referral care available to people in rural areas first. In the Satara district, rural hospitals have 30 beds available and are called CHCs. It has four basic disciplines, including medicine, surgery, obstetrics and gynecology, and pediatrics. In Maharashtra, there are 322 rural hospitals.

### **Conclusion**

Medical facilities in Satara district are very low quality. Need to improve quality of medical facilities, equipment, medicine and cost of treatment.

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# **A study of various leadership styles among B. Ed Teacher trainees of B. Ed colleges in Mumbai region.**

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## **Abstract:**

Today education is seen as a series of teaching, thinking, learning experiences which serves to change students' behavior in a specified desired measure. The progress and prosperity of a country depends upon the quality of its citizens. The critical measure of the quality of its citizens is the quality education provided to them. The quality of education depends upon various factors. The teacher is however the most important factor for quality improvement. Teachers are literally the arbiters of a nation's destiny. It may sound a truism, but it still needs to be stressed that the teachers are the key to any educational reconstruction. Teachers' influence is everlasting. He shapes the destiny of the future citizens. The teacher occupies a very important place in the society because he brings about the light of civilization burning bright. He is expected to help in the silent social revolution that is taking place in the country. His duty does not end in the classroom with his students. He owes a duty to the society and the nation. A teacher is required to be a man of qualities. He must possess an outstanding personality and extraordinary traits. He should be able to set a personal example of good conduct. High scholarship, high ideals, social service, integrity and leadership etc.

**Keywords:** B.Ed, Leadership, diagnostician, stimulation, Leadership styles.

## **Introduction:**

The teachers act as the pivot for the transmission of the intellectual and technical skills from generation to generation. From the philosopher to the layman everyone eulogizes the teacher as the mason who builds the fabric of society the students begin the bricks and mortar of the future. From the earliest times the teachers have had a hazardous and onerous task to perform to mold the body mind and soul. A teacher is no longer viewed as the transmitter of knowledge or dispenser of wisdom, but as a diagnostician, guide, assistant whenever appropriate – encourager, stimulator, promoter and an interactive participant in the education process.

## **Significance of the Problem:**

A teacher is supposed to possess outstanding personality and extraordinary traits. He should be able to set an example of good conduct, high scholarship, high ideals, social service, integrity and leadership etc. Even a good teacher possessing good subject knowledge is assigned the challenge to apply it effectively. A leader is the person who influences the attitudes and behavior of others in group activity. This requires on his part, an ability of intelligent observation of the behavior trends of members, capacity for coordinating their efforts and motivating them to achieve group goals. The teacher's job is a challenge for even the most capable. So, the teacher must possess and practice the various styles of leadership to perform his duty effectively. So, the B. Ed courses provide eligible teachers for handling various subjects at secondary and higher secondary school stage. The student trainees must have possessed leadership style for carrying out in many more academic activities. Today's student trainees are tomorrow teachers. The student trainees should have an opportunity to develop their leadership style during their course of the study. Yet no systematic attempt has been made to assess the leadership style among the student trainees by anybody till date to do best of the little knowledge of the investigator. Hence in this study the investigator has selected the topic as "A study of various leadership styles among B. Ed Teacher trainees of Govt. aided colleges in Mumbai region".

## **General Objectives of Study:**

To find out the leadership style among B. Ed Student trainees.

## **Hypothesis:**

1. There is no Significant means scores difference between the male and female B. Ed students in leadership styles.
2. There is no Significant means scores difference between the urban and rural B. Ed students in leadership styles.
3. There is no significant means score difference between the B. Ed student trainee having undergraduate degree and those possessing post graduate degree qualifications in leadership style.
4. There is no significant mean scores difference between lower age group and higher age group of B. Ed student trainee in leadership style.

**Methodology:**

For this study, survey method was adopted to collect the data through google forms. Using this method in which 200 samples selected from various B. Ed colleges in Mumbai.

**Statistical techniques:**

Thus, the collected data were screened and securitized by the investigator. After screening the data were analyzed using descriptive statistics and the test of significant like independent t-test was employed for testing the hypothesis and to arrive the meaningful conclusion.

**Hypothesis 1:**

There is no significant means score difference between the male and female B. Ed students trainees in leadership styles.

**Table1: Means scores differences between the male and female B. Ed student trainees in leadership style.**

Variable	B. Ed Student Trainees	N	Mean	SD	Df	t-value
Gender	Male	70	104.09	8.88	198	1.45
	Female	130	105.68	6.58		

The table 1 shows that the means scores difference between the male and female students' trainees in leadership styles. According to the table t-test is not statically significant at 0.05 level. Hence the hypothesis 1 is accepted and it tends to be presumed that there is no significant means score difference between the male and female B. Ed student trainees in leadership styles.

**Hypothesis 2:**

There is no Significant means scores difference between the urban and rural B. Ed students in leadership styles.

**Table 2: means scores difference between the urban and rural B. Ed students in leadership styles.**

Variable	B. Ed Student Trainees	N	Mean	SD	Df	t-value
Locality	Male	129	104.84	7.85	198	0.732
	Female	71	102.37	5.27		

The table 2 shows that means scores difference between the urban and rural B. Ed students in leadership styles. According to t-test table value is not statistically at 0.05 level. Hence the hypothesis 2 is accepted and it tends to be presumed that there is no significant means score difference between the urban and rural B. Ed students' trainees in leadership styles.

**Hypothesis 3:**

There is no significant means score difference between the B. Ed student trainee having undergraduate degree and those possessing post graduate degree qualifications in leadership style.

**Table 3: Means score difference between the B. Ed student trainee having undergraduate degree and those possessing post graduate degree qualifications in leadership style.**

Variable	B. Ed Student Trainees	N	Mean	SD	Df	t-value
Qualification	U G	125	104.98	7.95	198	0.577
	P G	75	105.52	6.67		

The table 3 shows that means scores difference between students' trainees having undergraduate degree and those having post graduate degree qualifications in leadership styles. According to t-test table value is not statistically at 0.05 level. Hence the hypothesis 3 is accepted and it tends to be presumed that there is no significant in means scores difference between students' trainees having undergraduate degree and those having post graduate degree qualifications in leadership styles.

**Hypothesis 4:**

There is no significant mean scores difference between lower age group and higher age group of B. Ed student trainee in leadership style.

**Table 4: mean scores difference between lower age group and higher age group of B. Ed student trainee in leadership style.**

Variable	B. Ed Student Trainees	N	Mean	SD	Df	t-value
Age	21 to 30	189	105.07	7.58	198	0.397
	3 to 45	11	106.01	5.80		

The table 4 shows that the means scores difference between lower age group and higher age group of B. Ed student trainee in leadership style. According to t-test table value is not statistically at 0.05 level. Hence the hypothesis 4 is accepted and it tends to be presumed that there is no significant in means scores difference between lower age group and higher age group of B. Ed student trainee in leadership style.

#### **Findings:**

1. There is no Significant means scores difference between the male and female B. Ed students in leadership styles.
2. There is no Significant means scores difference between the urban and rural B. Ed students in leadership styles.
3. There is no significant means score difference between the B. Ed student trainee having undergraduate degree and those possessing post graduate degree qualifications in leadership style.
4. There is no significant mean scores difference between lower age group and higher age group of B. Ed student trainee in leadership style.

#### **Conclusion of the study:**

1. The leadership style based on the B. Ed student trainees gender shows insignificant difference. It reveals that the B. Ed student trainees based on their gender shows no significant differences in leadership styles.
2. The leadership style based on the B. Ed student trainee's locality shows insignificant difference. It reveals that the B. Ed student trainees based on their locality shows no significant differences in leadership styles.
3. The leadership style based on the B. Ed student trainee's qualification shows insignificant difference. It reveals that the B. Ed student trainees based on their qualification shows no significant differences in leadership styles.
4. The leadership style based on the B. Ed student trainees age shows insignificant difference. It reveals that the B. Ed student trainees based on their age shows no significant differences in leadership styles.

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## **Area And Production Of Sugarcane Crop In Maharashtra With Special Reference To Satara District**

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### **Abstract**

The cropping pattern in India has changed significantly during the last 65 years. The farmers were mostly cultivating those crops which require less water. The production and productivity of these crops were mostly dependent on monsoon. With the progress of irrigation the cropping pattern has also changed. With the enhancing irrigation facility farmers were preferred commercial or sugarcane crop instead of some traditional crops. With the development of agro based industries and agro processing industries, there is increase in an area under the cultivation of sugarcane crop.

**Keywords:** - Sugarcane, Area, Production, India. Maharashtra and Satara.

### **Introduction**

Food crops and non-food crops are more cultivated in Maharashtra. The same trend was observed among the regions of Maharashtra. There was dominance of traditional as well other crops in terms of area under cultivation, output and yield growth. It can lead to suggest that, there is alternative in terms of area under cultivation to concentrate another crop in spite of tradition dominant crop. Moreover, few crops were recorded higher growth in production during overall period in Maharashtra. They were sugarcane, cotton, rice, soybean, wheat, groundnut and Bajara. But the annual growth rate of production of all crops except soybean was recorded within the five per cent per annum which was the low growth. In order to increase the growth rate of agricultural production instead of increasing more area under cultivation, the productivity growth rate, which was also remained low, had to rise in the Maharashtra.

Cropping pattern growth in area and production of main crops in Maharashtra, it could show that, the production was higher when area was declined while productivity or yield was increased. The growth in productivity excepting few crops remained higher than period-I (1961-70) because it was pre-green revolution period. After adopting high yield variety seeds technology, irrigation and use of other agricultural inputs, the productivity was increased. The productivity growth of sugarcane, wheat, cotton and safflower was higher than other crops productivity growth during overall period (1961-2010). The productivity growth of soybean and safflower was higher during the period-III (1981-90) but it could not sustain of during the further sub-period. Growth in total oilseed crops was lower till period-III but it recorded higher during the further period. As mentioned in production pattern, the technology mission of Sugarcane also responsible to increase the growth rate of productivity of Sugarcane in Maharashtra.

Three largest producing states of important crops during 2019-20, Maharashtra stood at second rank in the production of Sugarcane. The table 1.2 shows area and production of Sugarcane Crops in Maharashtra during the period 2001 to 2020.

### **Study Area:-**

Satara district lies in the southern Maharashtra, particularly at the western limit of Deccan table land. From the view point of physiographic Sahyadri and Mahadeo these are the two important ranges within the Satara district. The district is situated in the river basin of two rivers that are the Bhima and the Krishna River. But most probably, from the view point of peninsular drainage the entire land of Satara district belongs to the larger drainage system of the Krishna River. The latitudinal and longitudinal extent of Satara district is 17°05' to 18°11' north latitudes and 73°33' to 74°54' east longitudes. The district is bordered by Pune district and Sangli district in the north and the south respectively and by Solapur district and Ratnagiri district in the east and the west respectively. It also shares small boundary of about 24k.m. in the north-west with Raigarh district (Census 2011). The district administers 10480.00sq.km of area. The total population of district is 3003922 including 1512524 male population and 1491398 female population. The total population of district constitutes 2.67 percent of the total Maharashtra's population. The population density of district is 287 people per. Sq. km. whereas the sex ratio of district is 986. (Census2011).

## Research Problem Of The Study

Sugar is agro based product and it is almost 98 per cent of its total production, used in food factories and sweet factories. The only 2 per cent of total sugar production is used in domestic purpose. That's why production of sugarcane crops in India and increase in production is fivefold.

## Objective Of The Study

1. Sugarcane cropping pattern in Maharashtra.
2. To study the change of Sugarcane Crop between the period from 2000-2001 to 2019-2020.
3. To suggest measures for improvement if necessary.

## Research Methodology

Only secondary data has been collected from Books, Journals, Gazetteer, Agricultural epitomes, RBI Report, Crop reports published by the department of agriculture (2000 to 2020).

## Limitation Of The Study

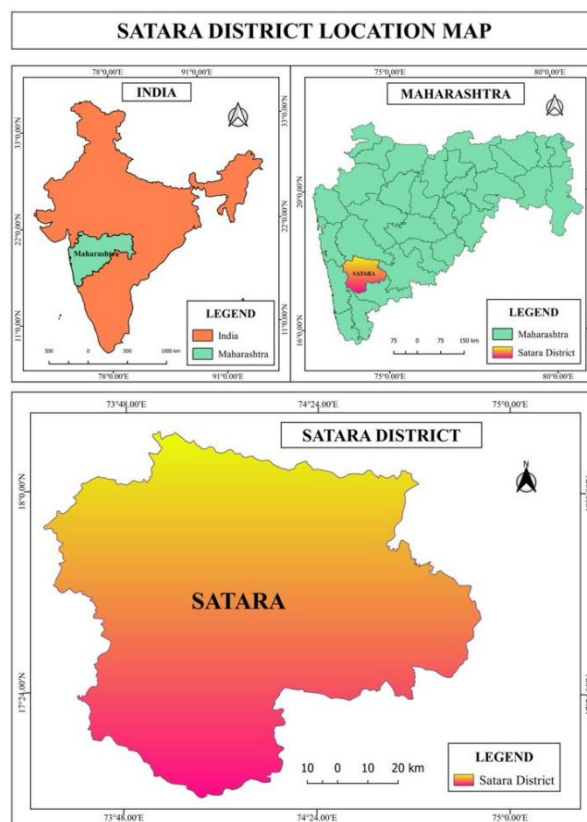
The major limitation of this research is that the present research is related to only Area and Production of Sugarcane crop in India and conclusion of this research may not be applicable to other area.

## Data Analysis And Interpretation

**Table 1**Area and Production of Sugarcane Crop in India

(Area in million hectares; Production in million tons)

Year	Sugarcane	
	Area	Prod.
2000-01	4.32	295.96
2001-02	4.41	297.21
2002-03	4.52	287.38
2003-04	3.93	233.86
2004-05	3.66	237.09
2005-06	4.2	281.17
2006-07	5.15	355.52
2007-08	5.06	348.19
2008-09	4.42	285.03
2009-10	4.17	292.3
2010-11	4.88	342.38
2011-12	5.04	361.04
2012-13	5.00	341.2
2013-14	5.01	350.02
2014-15	5.07	362.33
2015-16	4.93	348.45
2016-17	4.44	306.07
2017-18	4.74	379.9
2018-19	5.06	405.42
2019-20	4.57	355.7



<b>Total</b>	<b>92.58</b>	<b>6466.22</b>
<b>Average</b>	<b>4.63</b>	<b>323.31</b>
<b>Std</b>	<b>0.43</b>	<b>46.04</b>
<b>CV</b>	<b>9.29</b>	<b>14.24</b>
<b>CAGR</b>	<b>0.003</b>	<b>0.01</b>
<b>Maximum</b>	<b>5.15</b>	<b>405.42</b>
<b>Minimum</b>	<b>3.66</b>	<b>233.86</b>

**Source: Directorate of Economics and Statistics, Department of Agriculture and Cooperation 2019-20.**

The average area under Sugarcane and production of Sugarcane during the period 2000-01 to 2019-20 was 4.63 million hectare and 323.31 million tons respectively. It means that production of Sugarcane is increasing at more rate than the area under Sugarcane crops in India. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 9.29 and 14.24 percent correspondingly. It means that, production of Sugarcane is more unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 5.15 million hectare and 405.42 million tons respectively. On the contrary the minimum area under Sugarcane crops and Sugarcane production were 3.66 million hectare and 233.86 million tons respectively during the period 2000-01 to 2019-20. It means that the production of Sugarcane crops is increasing more rapidly than the area under Sugarcane crops in India and increase in production is fivefold. In fact cultivation of sugarcane is depends on the availability of irrigation facility since it requires huge amount of water and the availability of sugar factories. The climatic conditions are also affects on the production of sugarcane in India.

**Table 2Area and Production of Sugarcane Crop in Maharashtra and Satara District**  
(Area in “00” Ha. Production in “00” Tons)

Year	Sugarcane Crop in Maharashtra		Sugarcane Crop in Satara District	
	Area	Production	Area	Production
2001	5953	495687	383	35040
2002	5782	451398	394	37280
2003	5731	426170	380	35360
2004	4425	256684	313	21061
2005	3269	239137	232	18753
2006	5007	388137	389	34538
2007	8488	662774	536	44854
2008	10928	884372	608	51356
2009	7684	606483	504	42300
2010	7559	641594	538	48122
2011	9645	856914	740	69634
2012	10220	894561	706	69626
2013	9381	753350	598	55777
2014	9371	839542	598	60152
2015	10296	915380	700	69274
2016	63300	542370	655	63298
2017	90200	831380	503	62597
2018	116280	8977050	806	79838
2019	822240	6931290	824	80381
2020	114280	1116421	840	89778

<b>Total</b>	<b>1320039</b>	<b>27710694</b>	<b>11247</b>	<b>1069019</b>
<b>Average</b>	<b>66001.95</b>	<b>1385534.70</b>	<b>562.35</b>	<b>53450.95</b>
<b>SD</b>	<b>181893.75</b>	<b>2282868.92</b>	<b>176.61</b>	<b>19888.53</b>
<b>CV</b>	<b>275.59</b>	<b>164.76</b>	<b>31.40</b>	<b>37.21</b>
<b>CAGR</b>	<b>0.17</b>	<b>0.04</b>	<b>0.04</b>	<b>0.05</b>
<b>Maximum</b>	<b>822240</b>	<b>8977050</b>	<b>840</b>	<b>89778</b>
<b>Minimum</b>	<b>3269</b>	<b>239137</b>	<b>232</b>	<b>18753</b>

**Source:-Department of Agricultural, Government of Maharashtra 2015-16.**

The average area under Sugarcane and production of Sugarcane in Maharashtra during the period 2001 to 2020 was 66001.95 thousand hectare and 1385534.70 thousand tons respectively. The compound annual growth rate of area under Sugarcane crops and production was 0.17 and 0.04 percent respectively. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 275.59 and 174.76 percent respectively. It means that production of Sugarcane is unstable than area under Sugarcane in Maharashtra. The maximum area under Sugarcane crops and Sugarcane production has been observed as 822240 thousand hectare and 8977050 thousand tons respectively. Likewise the minimum area under Sugarcane crops and Sugarcane production were 3269 thousand hectare and 239137 thousand tons respectively during the study period. The average area under Sugarcane and production of Sugarcane in Satara district during the period 2001 to 2020 was 562.35 thousand hectare and 53450.95 thousand tons respectively. The compound annual growth rate of area under Sugarcane crops and production was 0.04 and 0.05 percent correspondingly. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 31.40 and 37.21 percent respectively. It means that production of Sugarcane is increasing than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 840 thousand hectare and 89778 thousand tons respectively. On the contrary lowest area under Sugarcane crops and Sugarcane production were 232 thousand hectare and 18753 thousand tons respectively during the study period.

### **Conclusions**

After having overall discussion on the area and production of sugarcane analysis in the study region, researcher is now in position to draw appropriate conclusions of the study which are classified as per the objectives of the study and it is presented as below.

1. The average area under Sugarcane and production of Sugarcane during the period 2000-01 to 2019-20 was 4.63 million hectare and 323.31 million tons respectively. It means that production of Sugarcane is increasing at more rate than the area under Sugarcane crops in India. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 9.29 and 14.24 percent correspondingly. It means that the production of Sugarcane crops is increasing more rapidly than the area under Sugarcane crops in India and increase in production is fivefold. In fact cultivation of sugarcane is depends on the availability of irrigation facility since it requires huge amount of water and the availability of sugar factories. The climatic conditions are also affects on the production of sugarcane in India.
2. The average area under Sugarcane and production of Sugarcane in Maharashtra during the period 2001 to 2020 was 66001.95 thousand hectare and 1385534.70 thousand tons respectively. It means that production of Sugarcane is unstable than area under Sugarcane in Maharashtra.
3. The average area under Sugarcane and production of Sugarcane in Satara district during the period 2001 to 2020 was 562.35 thousand hectare and 53450.95 thousand tons respectively. It means that production of Sugarcane is increasing than area under Sugarcane.

### **Suggestions**

1. The crop loan should be made available easily, timely and at the affordable cost to the farmers especially during the harvesting period.
2. The transportation system especially agricultural roads are needed to be developed from farm to sugarcane factory. The agricultural roads are not well developed in the study region, so it has been suggested that agro roads should be developed in India.
3. The agricultural cost of production is seems more compare with state and national level figures in study region, hence it has been suggested that farmers should promotes to use cost effective farm techniques.
4. The average land holding size is very small in the study region, hence it has been suggested that to think about cooperative farming or joint farming so as cost of production may reduce and increase in productivity of the land.

5. The Government has no control over the market prices of agriculture commodities, hence more frequently the market price during pick period is observed lower than that of minimum support price. The government should control market prices through redefining agriculture pricing policy.

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# **An Analytical Study of The ‘National Green Tribunal Act 2010’ In Upholding Environmental Sustainability.**

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## **Abstract:**

The Public Liability Insurance Act 1991 and National Environmental Tribunal Act 1995 provide the remedy of damages in favour of victims other than the workmen who have suffered injury to their persons or property in course of accident while handling of hazardous substances only. Thus these Acts were not providing remedy in case of injuries to person or property occurred during the accident while handling non hazardous substances. Victims in these situations were compelled to avail remedies at the instance of ordinary civil courts which have always been expensive, time-consuming and technical in nature. Similarly there has always been the need of reconciliation of different environmental legislations at the instance of single adjudicatory authority to achieve the object of environmental sustainability. In this background the National Green Tribunal Act 2010 strives to provide solutions.

**Keywords:** Environmental legislations for prevention of environmental pollution and for protection of natural resources – the remedy of damages for breach of environmental rights – special tribunal under National Green Tribunal Act 2010.

## **Introduction:**

Indian constitutional law is the fundamental law containing a scheme of protection of environment and prevention of environmental pollution. Under Constitution Indian higher judiciary has elevated the status of the right to pollution free environment as the fundamental right. The person being aggrieved of the violation of his environmental rights may seek compensatory justice from high courts and Supreme Court by availing relevant constitutional provisions such as Article 21, 14, 226, 32 etc. Aggrieved person may also enforce his rights to positive and negative remedies. The victim being aggrieved from the breach of environmental rights consequently suffered from the public nuisance may set the criminal administration of justice into motion by reporting the environmental pollution issue to either police or Magistrate as the case may be by resorting the provisions of Indian Penal Code and Code of Criminal Procedure. The victim can also seek the remedy of the declaration and damages from the civil court under the provisions of Specific Relief Act and Code of Civil Procedure. The remedy of the damages in case of breach of environmental rights of the person now has been expanded and strengthened under Indian legal system. At the time of the enactment of environmental laws in form of special legislations either for prevention of environmental pollution or for protection, preservation of natural resources due care has been taken that the persons aggrieved of the breach of fundamental environmental rights will be getting fair compensation for it. The aggrieved person could be the workman or a member of the general public who is victim of the environmental pollution or breach of any of his environmental right. In such a situation where numerous special enactments of environmental laws containing relevant remedies are operative need for having the special independent adjudicatory forum to enforce those rights is inevitable. Similarly the owners, managers of the industrial establishments carrying personal reservations about the justifiability of the orders passed by environmental authorities under different laws wanted to have unified redressal forum in form of appellate authority. Hence National Green Tribunal Act was passed in 2010.

## **Research Methodology (Material & Methods):**

Author for the sake of writing present article will rely on the Doctrinal, non-empirical legal research method and will be referring the provisions of the Constitution and the National Green Tribunal Act 2010 passed by the Parliament which are considered as the primary data in the field of law.

## **Silent Features of the National Green Tribunal Act 2010:**

1. The objectives of the national green Tribunal Act are as follows, firstly to make provision for the formation of National Green Tribunal. Secondly to bring into existence the prompt and efficient mechanism for the speedy disposal of cases involving issue of environmental protection, conservation of forests and natural resources. Thirdly to provide the scheme for the enforcement of legal rights pertaining to environment and for giving remedy of the compensation for damages to persons and property.
2. Under section 3 of the Act Central Government by issuing notification has established the National Green Tribunal to exercise jurisdiction, powers and authority conferred on it under this Act. The national green Tribunal on full time basis consists of (a) Chairperson (b) judicial members not less than ten and maximum twenty in number supposed to be notified by the Central Government. (c) expert members not less than ten and maximum twenty expected to be notified by the Central Government. The Chairperson

of the Tribunal has been empowered to invite any one or more person having specialized knowledge and experience in a particular case before the Tribunal to assist the Tribunal in that case.

3. Under section 14 the national green Tribunal is having the jurisdiction over all civil cases where a 'substantial question relating to environment (including enforcement of any legal right relating to environment)', is involved and such question arises out of the implementation of the enactments specified in Schedule I. It includes all the Acts which are material for the protection of environment such as the Water (Prevention and Control of Pollution) Act 1974; the Forest (Conservation) Act 1980; the Air (Prevention and Control of Pollution) Act 1981; the Environment (Protection) Act 1986; the Public Liability Insurance Act 1991; the Biological Diversity Act 2002.
4. The 'substantial question relating to environment' includes an instance where, (i) there is a direct violation of a specific statutory environmental obligation by a person by which, (a) the community at large other than an individual or group of individuals is affected or likely to be affected by the environmental consequences; or (b) the gravity of damage to the environment or property is substantial; or (c) the damage to public health is broadly measurable; (ii) the environmental consequences relate to a specific activity or a point source of pollution;
5. The Tribunal hears the disputes arising from the above mentioned questions and settles such disputes and passes relevant orders.
6. The prescribed period of limitation by filing application for adjudication of dispute by the Tribunal is six months from the date on which the cause of action for such dispute first arose. However Tribunal may in case of existence of sufficient cause allow it to be filed within a further period not exceeding sixty days.
7. Under section 15 of the Act there is provision for the relief, compensation and restitution. The Tribunal may by an order provide (a) relief and compensation to the victims of pollution and other environmental damage arising under the enactments specified in the Schedule I (including accident occurring while handling any hazardous substance); (b) for restitution of property damaged; (c) for restitution of the environment for such area or areas as the Tribunal may think fit.
8. Under section 16 Tribunal is also having appellate jurisdiction. Any person aggrieved by (a) an order or decision made on or after the commencement of the National Green Tribunal Act 2010 by the appellate authority / competent authority under relevant section of the environmental protection Acts specified above (in schedule I) may within a period of thirty days from the date on which the order or decision or direction or determination is communicated to person can prefer an appeal to the Tribunal.
9. Under section 17 of the Act the liability to pay relief or compensation in certain cases has been determined. It speaks that where death of or injury to any person (other than a workman) or damage to any property or environment has resulted from an accident or the adverse impact of an activity or operation or process under any enactment specified in Schedule I, the person responsible shall be liable to pay such relief or compensation for such death, injury or damage as may be determined by the Tribunal.
10. Under section 18 of the Act the provision of filing an application or appeal in the prescribed manner to Tribunal for seeking appropriate relief as discussed above has been made. An application for grant of relief or compensation or settlement of dispute may be made by (a) the aggrieved person or (b) any of the legal representatives of the deceased or (c) any agent duly authorized or (d) any representative body or organization.
11. Under section 20 Tribunal has to apply certain principles while passing any order or decision or award, such as the principles of sustainable development, the precautionary principle and the polluter pays principle.
12. Under section 21 Tribunal takes the decision by majority of members. Under section 22 any person aggrieved by any award, decision or order of the Tribunal may file an appeal to the Supreme **Court**, within ninety days from the date of communication of the award, decision or order of the Tribunal on the grounds specified in section 100 of the Code of Civil Procedure 1908.
13. Under section 24 there is provision of the deposit of an amount payable for damage to environment in the environmental relief fund created under sub-section (3) of section 7A of the Public Liability Insurance Act 1991.
14. Under section 25 National Green Tribunal executes award or order or decision of Tribunal as a decree of a civil court and for this purpose the Tribunal shall have all the powers of a civil court. The Tribunal can also transmit any order or award made by it to a civil court having local jurisdiction and such civil court shall execute the order or award as if it were a decree made by that court.
15. Section 29 of the Act speaks about the bar of jurisdiction accordingly no civil court shall have jurisdiction to entertain any appeal in respect of any matter which the Tribunal is empowered to

determine under its appellate jurisdiction. Similarly no civil court shall have jurisdiction to settle dispute or entertain any question relating to any claim for granting any relief or compensation or restitution of property damaged or environment damaged which may be adjudicated upon by the Tribunal and no injunction in respect of any action taken or to be taken by or before the Tribunal shall be granted by the civil court.

16. Under section 30 of the Act no court inferior to that of a Metropolitan Magistrate or Judicial Magistrate of the first class shall take cognizance of any offence under this Act except on a complaint made by (a) the Central Government or any authority or officer authorized in this behalf by that Government or (b) any person who has given notice of not less than sixty days in such manner as may be prescribed, of the alleged offence and of his intention to make a complaint, to the Central Government or the authority or officer authorized as aforesaid.

#### **Conclusion:**

The National Green Tribunal Act 2010 is an important legislation which has established the national Green tribunal and practically streamlined the enforcement of the environmental remedies provided under Indian environmental laws. Its significance can be led down in the following manner towards upholding environmental sustainability.

1. The Tribunal established under National Environmental Tribunals Act 1995 was having jurisdiction to provide damages arising out of any accident occurring while handling any hazardous substance only. Thus scope of the jurisdiction of Tribunal was a restrictive. The National Green Tribunal Act 2010 (which has repealed the National Environmental Tribunal Act 1995) has resolved this limitation where in damages can be sought arising out of any kind of accident whether while handling hazardous or non hazardous substances.
2. The competent authority namely the collector is empowered under the Public Liability Insurance Act 1991 to provide remedy of the compensation in favour of the person other than workman who has suffered injury to his person or property because of any accident occurred in industrial establishment handling hazardous substances. Thus the scope of the competent authority is limited. However the National Green Tribunal as mentioned above has empowered to grant the compensation to the aggrieved person whether the damage is caused because of the accident while either handling of hazardous or non-hazardous substances.
3. Under Water Prevention and Control of Pollution Act 1974, Air Prevention and Control of Pollution Act 1981, Forest (Conservation) Act 1980, Environment (Protection) Act 1986 or under Biological Diversity Act 2002 the competent authorities such as the central or state pollution control boards etc. have been created. These authorities are empowered to issue relevant directions to the owners/administrators of the industrial establishments regarding emission of the trade effluent/pollutant and pertaining other norms of the pollution or obligations under environmental laws. The appeal against such orders can be filed before the tribunal under National Green Tribunal Act 2010. Thus it has provided the facility of appellate authority to the aggrieved owners, managers of the industrial establishments.
4. This Act has made the provision of the speedy, inexpensive, informal adjudicatory authority in form of National Green Tribunal for the enforcement of the environmental rights of the persons. Thus the National Green Tribunal Act 2010 has proved to be comprehensive umbrella legislation containing the provisions for the grant of remedies of declaration, damages, injunctions etc. through National Green Tribunal.

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# Critical Review Of Relationship Between Income Inequality And Healthy Environment

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## **Abstract:**

All the economic and environmental forums are focusing on the sustainable development at local, national as well as international level. However, low income people, who are mostly affected due to environmental degradation, supposed to act for healthy environment! High income people/state/country are became rich by using (exploiting?) the available natural resources. We can have a healthy environment, and bequeath one to future generations, by respecting nature's limits and investing in nature's wealth. Achieving these goals does not only require rebalancing our relationships with nature. It will also require rebalancing our relationships with our fellow humans. The data has been collected from secondary sources and truly acknowledged. Nature of the paper is descriptive. In this context the paper is review the existing literature regarding the relationship between income/economic inequality and environment degradation. It is observed from the study that relationship between income inequality and healthy environment are inversely related.

**Key word:** Environment, Inequality, Environment Kuznets Curve

## **Introduction:**

Recently all the forums are focusing on the environment up gradation at local, national as well as international level. But can we say to low income people, who are bearing large cost of environmental degradation, to behave for healthy environment? High income people/state/country are became rich by using (exploiting?) the available natural resources. We can have a healthy environment, and bequeath one to future generations, by respecting nature's limits and investing in nature's wealth. Achieving these goals does not only require rebalancing our relationships with nature. It will also require rebalancing our relationships with our fellow humans. Environmental degradation appear to be another side effect of economic inequality and analyses show there is a negative correlation between income inequality and environmental sustainability (Andrichet al., 2010; Baland et al., 2007; Butler, 2002; Dorling, 2010a2010b; Holland et al., 2009; Mikkelsen et al., 2007): the higher the income inequality the worse the environmental indicators such as waste production, meat and water consumption, biodiversity loss and environmental composite indices (e.g. ecological footprint). Boyce et al (2007) have proposed that the unequal distribution of wealth and power within countries leads to greater environmental damage by undermining the collective action required for environmental protection. Likewise, it has been shown that more equal societies are more socially cohesive and have higher levels of trust which foster public-spiritedness (Wilkinson & Pickett, 2010). Similar findings have been reported on the relationship between social capital and environmental outcomes (Dulal et al., 2011), presumably because lack of trust and poorer social capital erode the capacity for collaborative action. In this context the paper overviews the study regarding the relationship between income/economic inequality and environment degradation. The relation is positive and highly correlated. Or we can say the relation between income inequality and healthy environment are inversely related.

## **Environment harm:**

Before going to see an empirical and theoretical examples we must understand some concepts i.e. environment harm, sustainable development, income inequality. A criterion that has gained many adherents in the past two decades is "sustainable development." This was defined by the World Commission on Environment and Development in its 1987 manifesto, *Our Common Future* (also known as the Brundtland Report, after commission chair Gro Brundtland), as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs." By this criterion, "environmental harm" means actions that compromise the ability of future generations to meet their needs. Conversely, "environmental improvements" would refer to actions that enhance the ability of future generations to meet their needs.

## **Income inequality:**

Economic inequality is the difference in how assets, wealth, or income are distributed among individuals and/or populations. It is also described as the gap between rich and poor, income inequality, wealth disparity, wealth and income differences, or the wealth gap. Income inequality is the extent to which income is distributed unevenly in a group of people.

### **Very important three questions asked by James K. Boyce (2007)**

James K. Boyce asked the very important question regarding environment harm and the victim of the environment harm in his working paper series entitled 'Is Inequality Bad for the Environment? (April 2007). These questions and expected answers given by him are as follows.....

1. Who benefits from the economic activities that cause the harm? If no one benefits – or at least thinks they do – they would not occur.
2. Who suffers environmental harm? If no one is hurt by these activities, they are not a problem – at least, not in terms of human well-being.
3. Why is the first group able to impose environmental harm on the second? That is, what allows some people to benefit at the expense of others?

The last of these questions is crucial to understanding the reasons for environmental harm. There are three possible answers to it.

One possibility is that those who are harmed belong to future generations, who are not here to defend themselves. In this case, the only remedy is to cultivate an ethic of inter-generational responsibility, one founded on a moral commitment to safeguard the well-being of our children and generations to come.

The second possibility is that those who are harmed lack information. They may know that their children are falling ill, for example, but not know what environmental circumstances are making them sick or who is responsible for them. In this case, the solution lies in greater access to information: environmental education in general and right-to-know laws in particular. In the United States, for example, the Emergency Planning and Community Right-to-Know Act of 1986, passed in the wake of the chemical plant disaster in Bhopal, India, created the Toxics Release Inventory which makes information on releases of toxic chemicals by industrial facilities available to the public. The final possibility is that those who are harmed are alive today and well aware of the costs imposed on them, but lack the power to prevail in making social decisions about the environment. In this case, the solution lies in redistributing power, so that those who suffer environmental harm are better able to defend themselves – and the environment – from others who benefit from activities that cause the problem.

We can answer these questions by another way.

Higher income people (countries) are able to exploit the natural resources (Ade N. 2016). They can influence the environment policies by their large share in income (MNC). In other words, rich people harm the environment by their activity and they are beneficial from the activity that caused the harm. But poor people/low income people (countries) are suffered from environmental harm because lack of information. They are not aware the evil effect of bad environment so they don't compete against such policies. Or they are not a try to be a part of such policy. If they try, they don't get noticed from richer people (countries)

### **Some theoretical and empirical examples**

In a statistical test of hypothesis, Boyce et al. (1999) found that among the 50 U.S. states, those with more equitable distributions of power (measured by voter participation, educational attainments, tax fairness and Medicaid access) tend to have stronger environmental policies and better environmental outcomes. Further evidence in support of this hypothesis comes from a study of the relationship between residential segregation and cancer risks from air pollution in the United States, which found that greater segregation on racial and ethnic lines is correlated with worse environmental and health outcomes for all groups, not only for people of color (Morello-Frosch and Jesdale 2006). Similarly, cross-country studies at the international level have found that a more equitable distribution of power – measured by such variables as democracy, political and civil rights, and adult literacy – is correlated with better environmental quality, even while controlling for other variables such as differences in per capita income. In sum, both theoretical reasoning and empirical evidence support the conclusion that inequality is bad for the environment. People are not like pondweed. How we treat the natural environment depends on how we treat each other. The second study Boyce conducted, with another group of colleagues, looked at environmental quality across the 50 states and asked why it's better in some states than others. It again turns out that these variations have much to do with differences in wealth and power. "Where income inequalities were greater, where educational inequalities were greater, where the fairness of fiscal policy in terms of both the tax system and access to services like Medicaid was better, you tended to find differences in environmental degradation." More equal distributions of wealth and power were associated with better environmental outcomes. Boyce's results are supported by complementary studies. Economist Jungho Baek and his co-authors also find that more equal income distribution in the U.S. results in better environmental quality in both the short and long run. Australian researchers identify similar impacts on the "stability of major systems including the social, terrestrial, water and mineral industry." Here is one another empirical example given

by Nico Heerink, Abay Mulatu, Erwin Bulte in their paper entitled 'Income inequality and the environment: aggregation bias in environment Kuznets curves'. This gave some interesting result. Increasing income creates environment harm at initial level but gradually the environment harm decreases due to income increases.

As household income increases, the ability of household to change consumption and production patterns improves. Many indicators of environmental quality/impact will be non-linearly related to household income. Indeed, some of those relations will have a turning point, although this is not relevant for the analysis below. At the consumption side, for example, it can be hypothesized that rising incomes may first increase demand for fuel wood, but at higher income level, fuel wood will be increasingly replaced by modern energy sources (Cropper and Griffiths, 1994). Demand for energy in to is also likely to be non-linearly related to income, although less likely to have a turning point. At the production side, similar effects are expected. For example, have found an inverted-U shaped relationship between household income and deforestation, as richer household were able to afford more intensive agricultural practices, entailing modern techniques of production. In addition, richer farmers can afford the investment needed for taking soil conservation measures (like the construction of terraces, adoption of agro-forestry practices, etc.) and they may be more interested in making such investments as their rate of time preference is likely lower. Finally, several recent empirical studies also find that household-level pollution follows an inverse-U (e.g. Chaudhri and Pfaff, 1998; Kahn, 1998).

Of course, there is no a-priori reason to suspect that environment pressure is necessarily related to household income in a concave fashion, as postulated by the EKC (Environment Kuznets Curve) hypothesis. However, the general argument spelled out in the following section is equally valid for the case of a convex relation between income and pressure.

Can we have the meaning of above study that redistribution of income from rich to poor people should be increases the ability to sustain development or awareness of healthy environment among the former poor people(Country)?

The paper 'Inequality and Environmental Sustainability' written by S. Nazrul Islam identifies four inter-related channels through which inequality impacts the environment. They are: household, community, national, and international channels. The household channel works mainly through the consumption behaviour. The rich tend to consume and pollute more than the poor, and hence redistribution of income in favour of the poor households has the potential to be more favourable for the environment. The concrete outcome however depends on several other factors. The community channel works through the role of equality in facilitating collective effort necessary for the protection of common property (environmental) resources. At the national level, the reduction of inequality can create a more level playing field that is conducive to the adoption of more pro-environment policies. At the international level, more equal distribution of economic and political power among countries can make it easier to mobilize the global effort necessary to confront the global environmental problems, including the important problem of climate change. These different channels however are not water-tight separate tunnels. Instead, they overlap and thus can amplify the beneficial impact of reduction of inequality on environmental outcomes.

### **Conclusion:**

By the theoretical and empirical evidence, we can conclude that there is a positive correlation between economic equality and healthy environmental (Sustainable environment). The policy makers of environment should focus on this side. The theoretical and empirical results thus indicate a potential trade-off between environmental conservation and income equality, both of which can be considered legitimate government objectives. Redistributing income is desirable in its own right, but may, at least in the short and medium term, contribute to loss of environmental quality if the household level relation between income and environment pressure in concave and the aggression effect is sufficiently large. This type of empirical study should take an initiate at developing countries like India. The results of the study can helpful to policy makers also developing countries which implement income equality policies can associate such policies with environmental policies.

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## Study of Thane Creek Pollution Caused By Various Sources Of Pollution

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### Abstract:

Thane creek (72°55' to 73° East Long and 19°15' North Lat) is 26 kms long. Thane creek joins by minor connection with Ulhas River on its North near Thane city. A few decades back heavy industrialization and consequent urbanization have occurred along both the banks of the creek. The creek supports good diversity of mangroves and birds including Flamingos. The creek used for domestic and industrial effluents. It results water pollution in creeks. It affects the creek ecosystem. It is possible to revive the creek ecosystem if remedial measures such as reduction of sewage and solid wastes at source, plantation of mangroves.

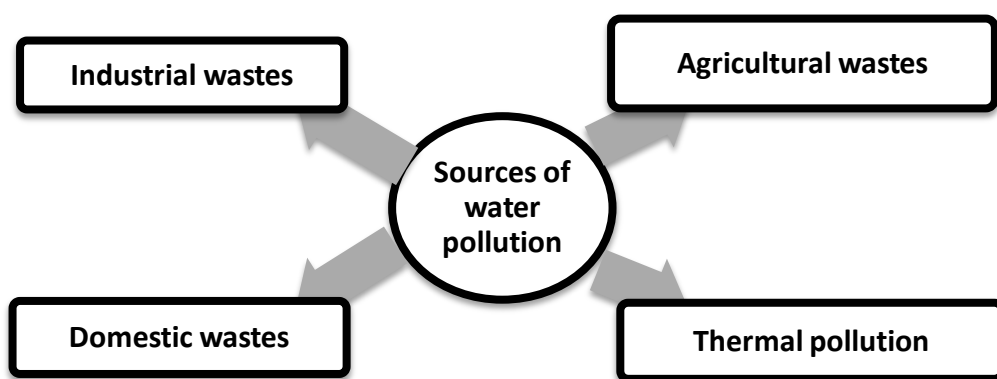
**Key Words:** Creek, Effluents, Ecosystem, sewage.

### Introduction:

Water is undoubtedly the most precious natural resource existing on our planet. It is required to meet our basic needs in day to day life. It is also required for irrigation, day to day activities, generating electricity in power plants, manufacturing processes and disposal of waste. In the process of urbanization, industrialization and agricultural practices, we knowingly or unknowingly pollute our rivers, lakes and oceans. Subsequently, we slowly but surely harm our planet. One of the consequences of this is that many species of flora and fauna are diminishing at an alarming rate.

Creeks play an important role as habitat for fishes and prawns. However, they are vulnerable to anthropogenic activities, as they are being used as dumping grounds for domestic and industrial wastes. Mostly industrial waste is harmful for aquatic ecosystem. A few decades' back heavy industrialization and consequent urbanization have occurred along both the banks of the creek. On the east bank exists Asia's largest industrialized zone namely Thane Belapur industrialized area along with the Navi Mumbai Urban area.

### Water pollutants:



#### 1. Domestic wastes (sewage):

This primarily includes excreta of humans and animals along with papers, food waste, detergents etc. Various discarded materials ultimately get accumulated in nearby water bodies like lakes, Ponds and rivers and creeks.

#### 2. Industrial wastes:

Huge amount of water is needed for manufacturing processes in steel



and paper industries. Hence such industries are situated on the banks of rivers. Many other industries like textile, Rubber, leather, medicines etc. are responsible for water pollution. All these industries produce huge amount of effluents, it is discharged if untreated into water bodies, can cause severe water pollution. Wastes like heavy metal are carcinogenic in nature and toxic compounds like phenol, cyanide and Ammonia are the major contaminants of chemical industries. Most of these pollutants are non degradable in nature.

### **3. Agricultural wastes:**

Chemical fertilizers are applied in fields to increase the crop yield.

They have harmful effects on human beings, animals and the environment too. The excess of fertilizers are leached into the ground and pollute the groundwater. Excess pesticides, insecticides and herbicides are also used in the fields to protect the crops, but all these find their way into nearby water bodies through surface run-off and are responsible for severe water pollution.

### **4. Thermal pollution:**

In thermal power stations and nuclear power plants, huge quantity of water is used for cooling purposes and such water becomes hot. When such heated water enters into nearby lakes or rivers it causes thermal pollution. Such type of pollution has harmful effects on aquatic ecosystem. Water pollutants include contamination due to domestic wastes, insecticides and herbicides, food processing waste, pollutants from livestock operations, volatile organic compounds (VOCs), heavy metals, chemical waste, and others. Rampant dumping of debris and effluents in the creeks abutting the city has been polluting the water of these natural bodies and posing a grave threat to marine life. This water has also been causing rashes in humans. A TMC survey reveals high alkalinity and less oxygen in the Thane creek water. The reports show high alkaline values to the extent of 7.85 mg/l at Kasheli while the volume of dissolved oxygen is also less at Gaimukh (7.4 mg/l). Dissolved oxygen is required to keep micro-organisms alive in water. The values were found higher at certain spots like Kolshet, Kalwa and Kopri and calls for immediate attention by the pollution control department. Organic content, Nitrates and Phosphates, heavy metals (zinc, chromium, cadmium and copper) present in the sediments of Thane creek.

### **Effects of water pollution:**

Waterborne diseases caused by polluted drinking water include typhoid, amebiasis, giardiasis, ascariasis, hookworm, etc. Waterborne diseases caused by polluted beach water are rashes, ear ache, pink eye, respiratory infections, hepatitis, encephalitis, gastroenteritis, diarrhea, vomiting, stomach aches, etc. When water is contaminated with chemicals such as pesticides, hydrocarbons, persistent organic pollutants, or heavy, it could lead to cancer, including prostate cancer and non-Hodgkin lymphoma, hormonal problems that can disrupt reproductive and developmental processes, damage to the nervous system, liver and kidney damage, and damage to the DNA. Specifically, mercury in water can cause abnormal behavior, slower growth and development, reduced reproduction, and death.

#### **1. Effects on human being:**

1. Diseases like hepatitis, typhoid, diseases of skin and alimentary canal.
2. Ailments of liver, kidneys, brain, deformities in bones, hypertension.

#### **2. Effects on ecosystem:**

1. Retarded plant growth
2. Loss of plant species
3. Increase in salt content of water
4. Decreased dissolved oxygen level
5. Disturbance in aquatic ecosystem
6. Death of aquatic animals
7. Adverse effects on sea birds

#### **3. Other effects:**

1. Changes in physical and chemical properties of water
2. Changes in natural color and taste
3. Useful aquatic fauna is destroyed
4. Soil fertility is affected
5. Toxic materials are added to crops

### **Conclusion:**

The study reveals the detrimental state of Thane creek. Moreover the livelihood of the local fishing community solely depends on the health of the creek. The constant hypoxia and high nutrients would not only affect the ecology of the creek but also the economy of the area. In order to combat this situation the government authorities should plan and implement certain remedial measures. Such as,

stopping reclamation activities, proper planning of solid waste disposal and making the use of effluent treatment plants mandatory before disposing the effluents and domestic sewage into the creek.

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## **Current Challenges Facing Indian Democracy: Some Solutions**

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### **Abstract**

Democracy is a universal form of government. Politically, democracy is a system of government in which the participation of every individual is important. It is claimed that almost all the nations of the world have adopted democratic rule. Democracy is not a modern form of government, it is ancient. Democracy seems to have originated in the Greek kingdoms. After independence, India adopted democracy. India is the largest democracy in the world. Democracy in India is much more decentralized than in the rest of the world. Political representation has been made available to the people at the grassroots level through Democracy. In addition to personal freedom and security, the Indian Constitution emphasizes the development of democracy in India through fundamental rights. Over the years, democratic regimes in many countries have changed, but Indian democracy still stands strong and capable. In the context of India, democracy is not just a form of government but a way of life for the Indian people. The credit for this definitely goes to Dr. Babasaheb Ambedkar. Considering the social, economic and political situation in India, there are still many obstacles in the way of parliamentary democracy. Many challenges have plagued Indian democracy. This research article attempts to discuss those challenges and find solutions to them.

**Key words:** Democracy, Society, Government, Nation, Inequality

### **Introduction**

After 1950, the Constitution of India came into force. India accepted parliamentary democracy. Credit for Parliamentary Democracy in India It belongs to Dr. Babasaheb Ambedkar. He was the architect of the Indian Constitution. He was instrumental in inculcating parliamentary democracy in India and in drafting the Indian Constitution. India is a diverse country. India is ethnically, religiously, culturally, socially, geographically, economically, regionally diverse. "Indian Parliamentary Democracy and the Constitution have worked to unite this diverse India".<sup>1</sup> A number of provisions have been made in the Indian Constitution to create national unity. 'Unity in diversity' is a hallmark of Indian democracy. In order to uphold and sustain democracy by adopting parliamentary democracy in India, "Democracy is not merely a guarantee of adult franchise; it also creates conditions for participation in the political process".<sup>2</sup> Many provisions have been made in the Indian Constitution such as Federal system, Fundamental rights, Directive principles of State policy, Judiciary, Local self-government, Reservation. The main objective of Indian Democracy is the holistic development of the individual. The protection of Fundamental rights is enshrined in Indian Democracy. "No one can usurp the Fundamental rights of citizens. The people's representatives are accountable to the people. The Indian people have the right to dismiss the government by voting if the people's representatives or political parties are not doing their job properly. Sovereignty in India is in the hands of the people".<sup>3</sup> No one in India is superior to the people. The public is not bound by any political party or individual. 'One person one value' is a feature of Indian democracy. "The government has to make an effort to establish equality. The task of democracy is to eliminate inequality. India has embraced representative democracy. People have the right to choose their representatives".<sup>4</sup> In a Democracy, everyone is given equal opportunity for development. Although there are people of different castes and religions in India, the Indian Constitution recognizes secularism. Religion and caste should not be an obstacle in the way of personal development. From independence till today, the path of Indian democracy has been successful. Many democracies in the world have changed more or less, but Indian democracy is still alive and well.

### **Methodology**

For this research paper, research tools have been used to observe the happenings around the Indian society, news in the media, news in newspapers, reviews of Indian democracy by various scholars. This research is basically based on secondary sources for which observational and descriptive research methods have been adopted.

### **Observations**

Although Indian democracy is moving forward successfully, democracy is facing many challenges these days. Indian democracy is facing many challenges in India such as Caste, Religion, Regionalism, Violence, Terrorism, Naxalism, Criminalization of politics, Minority movement, Linguistics, Economic inequality, Poverty, Corruption. No matter how good the concept of Democracy, the journey of Democracy is dangerous if those who run democracy are not tolerant. While Democracy in India looks good, it should

not be forgotten that the internal situation is appalling. Obstacles to democracy are obstacles to national unity and development. The above challenges need to be eradicated in order to survive.

### **Discussion**

Traditions have an impact on Indian society. "The social relations and the customs that guided the social life".<sup>5</sup>This society has not yet fully emerged from the siege of ancient traditions, Customs, etc. Therefore, in the minds of the Indian people, roots like religion and caste are deeply rooted. Since politics is also a part of social life, it is natural for politics to reflect good and bad things in society. Although secularism has been adopted, the interference of religion has been seen in Indian democracy from time to time. Political party candidature is given on the basis of caste. "In India they evolved the system of communal and special representation".<sup>6</sup>People of a particular caste vote according to the caste of the candidate. Political parties nominate candidates without considering their character, education and ability to get elected. There are still many candidates with a criminal background in Indian democratic politics. There are many instances of people's representatives embezzling crores of rupees in government funds. Corruption is a disgrace to Indian democracy. There is a growing tendency among political leaders to use language for political gain. The question of language in Indian democracy has also become an emotional question. In recent times, Indian democracy and national unity have been threatened more than ever. It is dangerous for the whole country to feel too close to the people about a region. The policies of the government are also fuelling regionalism. This has led to growing separatism, narrow-mindedness, the demand for autonomy, the demand for a separate state. "Despite these significant achievements in democracy and development, the incomplete project of nation-building, fuelled by the search for collective identity has emerged as one of the core problems of the twenty-first-century".<sup>7</sup>Indian democracy suffers from the problems of terrorism, Naxalism. The main objective of terrorist, Naxalite activities is to damage public property through acts of violence. Educated unemployed youth in the society are being lured to the path of anti-national ideology by showing financial temptations. The fact that acts of violence are carried out without using parliamentary means to meet the demands is extremely dangerous for democracy. India has huge economic inequality. Economic inequality creates an anti-integration environment. Inequality seems to have divided India into rich and poor. Communalism is on the rise in many religions in India. Democracy is threatened by growing Communalism. History shows that India was divided due to Communalism. Even today the country is witnessing massive communal riots in which many innocent civilians have been killed.

### **Findings**

In order to maintain Indian Democracy and National unity, the government needs to come up with a comprehensive plan to achieve equality by eliminating economic inequality in the country. In order to eliminate economic inequality, employment opportunities should be made available to the people along with good education system. Indian youth need to find employment so that they do not fall prey to anti-national ideology. To run a democratic nation, political leaders and the people need to know the basic tenets of democracy. Lack of knowledge of democracy is definitely not good for a democratic nation.

### **Solutions**

The government will have to come up with a comprehensive plan to establish economic and social equality in India. We have to educate the people about democracy by creating awareness about democracy. Decentralization of power and trade in education will have to be widespread. Efforts will have to be made to create transparent administration. Efforts will have to be made to address the imbalance in regional development. Nation religion should be human religion. The principles of interfaith harmony have to be disseminated through education. Young people will have to create a lot of employment opportunities. The law needs to be enforced effectively.

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# **The Performance of Digitalization in The Indian Banking System in 2021**

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## **Abstract**

Currently the new world digital is being used in all fields. The banking sector like other sector is moving toward digitalization. Banks in all sectors are investing heavily in digital venture to maximize the benefits to their customers. Digitalization is becoming more important in the banking sector. The digitalization service saves customer time as well as bank time and provides services to customer quickly. The use of digitization is meeting the needs of consumers in an innovative way. Digitalization is reducing mental error and increasing customer loyalty. Due to online banking facility 24 hours banking service is available to the customer. Digitalization has made consumers accustomed to cashless transaction. Customer does not have to carry cash around. Customer can transact anywhere and anytime. Many banks have survived in the banking business by offering digital services to their customers. The use of new technology is proving to be beneficial for the bank. The banking system saves on bank expenses.

**Key Words:** Digitalization, New Technology, Mobile Phone Banking

## **Introduction**

The present world is an electronic age. The world because of electronic systems and the advancement of information technology it is near. As a result the banking business has undergone business has undergone a radical change. The electronic system has revolutionized the banking sector. The banking business is incomplete without electronic technology. Advance in technology and internet have paved the way for digitalization. Now day's people are totally dependent on internet. Digitalization is the use of data using technology this means converting to digital. Digitalization reduces the number of errors in the banking business which in turn benefits the customers of the bank. Banks in all sectors have invested heavily in digital ventures to survive in today's competition and offer customers. Banks are providing better services to their customers through the use of digitalization. This saves time for both the customer and the bank. Today, due to online banking 24 hours banking facility is available to the customers. It has become easier to manage large amounts of cash. Digitalization allows transactions without cash. Digitalization allows customers in the bank to transact anywhere anytime.

## **Objectives:**

1. Creating awareness among consumers regarding digital banking.
2. Informing customers regarding the use of digital banking.
3. To study the system of digital banking trends in India.

## **Material and Methods**

Secondary data has been used in this study. Data has been collected from various sources such as research articles, various publications of the government of India, various bulletins of their serve bank of India as well as authentic Websites.

## **Review of Literature**

### **1. K. Hema Divya and K. Sumavally (2018)**

The article titled "A study on digital payment in India with perspective of consumer's adoption." The study found that the use of digital payment technology has led to better performance in the banking sector. Therefore, efforts were made to reduce the amount of cash in the country. The chi-square technique was used to collect the questionnaire.

### **2. Santiagocarbo**

The article focuses on the impact of digitalization on the banking business and the challenges facing the bank for financial stability. Has been discussed. The study also found that digitalization creates opportunities to reduce retail costs and increase productivity in financial services

## **Observations/Results**

Radical changes are taking place in the banking sector. In the case of banking digitalization is providing to be a boon. As a result the customer base is better attracted to the bank. Due to digitalization banks are getting better customer base while banks are also providing high quality services to their customer. Digitalization protects the customer base of the bank from cyber crime. The use of digitalization of mobile banking allows customers to transact money anywhere, any time. The growing use of technology and the use of smart mobile telephones are opening up a market for the banking business. In today world digital banking is gaining popularity. Consumer awareness about banking services is changing. After the ban digital banking has caught the attention of consumers in a different way. Some people still make mistakes in using digitalization because they are not financially strong and some people are ignorant of how to sue the internet. Banking services are greatly improved by organizing various programs, educating the poor and the ignorant through this program as well as informing them about the benefits of this service.

## **Discussions**

In the 1980s the Indian banking sector began to need computer systems for customer service, accounting and record keeping. Then in the year 1988 a committee was appointed under the chairmanship Dr. C. Rangarajan to study computer system. In 1991-1992 the Indian economy improved and the use of computer processing increased. Due to the growing sector of the bank the investment of private and foreign investors has increased in various sectors as well as in the stock market. Commercial banks use digital banking systems to stay competitive and serve customers. Automatic teller machines (ATMs) allow bank customers to withdraw money from their account anytime, anywhere. We can also get details of transactions on over account. Money can also be credited to your account through a cash depository machine. The reserve bank of India has made great efforts to strengthen the payment and settlement system among banks. Also the government of India is promoting digital transactions. Transfer can be made quickly to various bank accounts on the basis of UPI app. In Today market place customers can make payment using Google pay, phone pay, Paytm, Bharat pay, etc. also all type payment like light bill, phone bill, government tax, TV recharge, train booking, phone booking etc. the following facilities are provided to the customers by the bank of India to enhance the banking business as well as to attract the customers egment.

### **1. Automatic Teller Machines:**

ATM is the most popular system in India. With this system customer can withdraw money 24 hours a day 7 days a week. Using an ATM card, customers can transact with the bank on a regular basis without having to interact with the cashier. In addition to cash withdrawals, ATM is used to pay utility bills, transfer funds. To accounts, and check and cash balances.

### **2. Telebanking**

Telephone banking is facility provided by banks and other financial institutions. Financial transactions are enabled through this facility. Convenience is provided without the inclusion of cash or financial instruments.

### **3. ECS**

According to the electronic clearing system, funds are transferred electronically from one bank account to another bank account. This system is widely used by the organization for payment of dividend, interest, salary; pension etc. the ECS system is also used to pay bills and other charges. ECS system is used for both ECS debit and ECS credit system. Monthly installment transfer is also done by ECS system.

### **4. Electronic funds transfer:**

EFT is a system offered by the reserve bank of India where any one person can make payments in the name of another person. The person can go to the bank and make the payment or transfer the funds to the recipients bank account. This transaction requires full details of the recipients such as recipients name, account number, type of account (current or saving account) bank name, branch name, city, IFSC code etc.

### **5. RTGS/NEFT**

Funds are transferred from one bank account to another bank as per real time gross settlement. This transfer is done according to electronic instructions. Funds are transferred

quickly and efficiently as per RTGS. Money is transferred through this system in a very short time. National electronic fund transfers are regulated by the reserve bank of India. And accordingly the amount is transferred. Money is transferred electronically. This facility is used to transfer funds electronically from any bank branch. Fund transfer is done as per NEFT using internet banking and mobile banking.

#### **6. MICR Code**

MICR Code is printed on the check. This enables the check to be efficiently identified and the check transaction process to be expedited. MICR has 9 digit codes. Bank and branches participating in the electronic clearing city the uniquely identified under this code. The MICR code is at the bottom of the check page and next to the check number.

#### **7. IFSC Code**

The Indian financial system code is a unique 11 digital alphanumeric code that is used for online fund transfer transactions done via NEFT, RTGS and IMPS. You can find the IFSC code on the cheque leaf that is provided by the bank. The reserve bank of India assigns the IFSC codes to the bank. This 11 character code helps identify the individual bank branches that participate in the various online money transfers like NEFT and RTGS. The first 4 digit of the IFSC represents the bank and last 6 characters represent the branch. The 5<sup>th</sup> character is zero.

#### **8. IMPS System**

Immediate payment services are an instant interbank electronic fund transfer service through mobile phones. It is also being extended through other channel such as ATM, internet banking etc. IMPS provides robust and real time fund transfer which offer an instant 24\*7 interbank electronic funds transfer services that could be accessed on multiple channels like mobile, ATM, SMS. IMPS are an emphatic service which allows transferring of funds instantly with in banks across India which is not only safe but also economical. The eligible criteria for the banks who can participate in IMPS are that the entity should have valid banking or prepaid payment instrument license from reserve bank of India participate in IMPS.

#### **9. QR Code**

A QR code is a piece of barcode that allows information to be stored and read easily by digital devices. Many types of smart phones are manufactured according to QR code. Currently in the market, payments like Google Pay, Phone Pay, Amazon Pay, Bharat Pay, Lightbill etc. are made through QR code.

#### **Limitations**

The information of the paper is depending upon the secondary data it also one of the limiting factor

#### **Acknowledgment:**

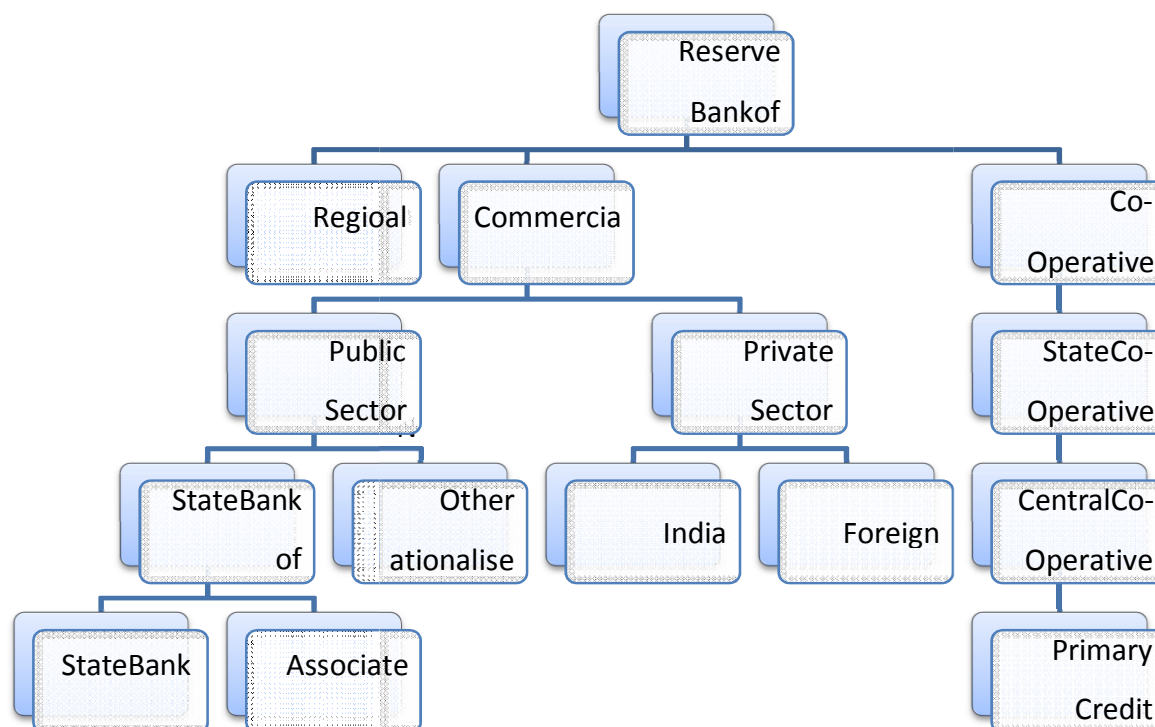
In today world banking institutions are the backbone of the country economy. The bank operates in the financial sector. Bank collects deposits and distributes loans to the needy. The aim of the bank is to make the society prosperous. Today the financial expansion of the bank is increasing day to day. Every person in the society is involved in the financial affairs of the bank in one way or another. In this study I the performance of digitalization in the Indian banking system has been studied. The valuable guidance of my guide Dr. B. S. Salunkhe for this study has benefited. I am grateful to them for their guidance. Because without their guidance and encouragement, I would not have been able to study this subject. They inspire me to complete this task.

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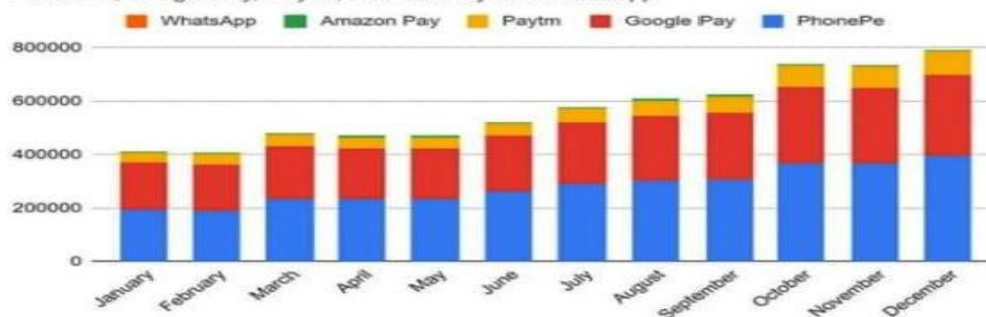
### Indian Banking System



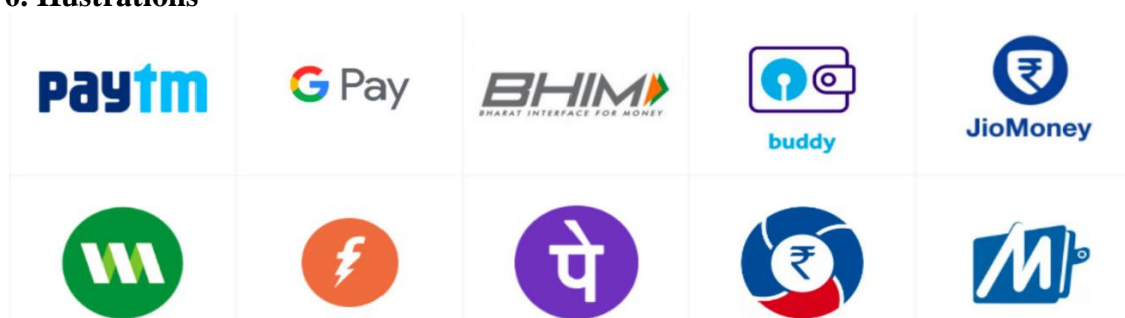
## 5. Figures

### UPI Transactions Value In CY21 [In Cr] - App Wise

PhonePe, Google Pay, Paytm, Amazon Pay and WhatsApp



## 6. Illustrations





# **The Impact of Information Technology on Modern Accounting System**

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## **Abstract:-**

This paper provides a review on the impact of information technology on modern accounting system. The impact of IT has made on accounting is the ability of companies to develop and use computerized system to track and record financial transaction. IT networks and computer system have shortened the time need by accountant's to prepare and present financial information to management. The computerized accounting system allows companies to create individual report quickly and easily for management decision making. Also this system increased Functionality, Improved Accuracy, Faster Processing and Better External Reporting. Finally, this paper shed light on advantages and disadvantages of using information technology in modern accounting system.

## **Keywords:-**

Modern Accounting System, Information Technology, Financial Transaction, Decision making, Security.

## **Introduction:-**

The accounting system is one of the most important foundation for the success of any company, as the correct and efficient application of the accounting system contributes to enhancing the economic efficiency of the company, reduces the excess costs and reduces the risks that the company can be faced, therefore a company can uses the accounting system to measure its financial performance by noting and classifying all the transaction like sales, purchases assets and liabilities in a manner that adheres to certain accepted standard formats. It helps to evaluate a company's post performance, present conditions and future prospects. Accounting can also be referred to as an information system that measures, process, and communicates financial information about an economic entity. The information technology has always been a very important part of accounting and it makes the accountant's job a little easier which has helped to increase the efficiency and ability of an accountant's to assess statistical values and to interpret data efficiently and effectively. The impact of I.T. has made on accounting is the ability of companies to develop and use computerized accounting system to track and record financial transaction. The computerized accounting system on financial reporting has several positive impacts i.e. facilitating financial task to be performed easily, easy communication, user friendliness, cost saving, timely and accurate financial reports. Also this system allows companies to create individual reports quickly and easily for management decision making.

## **Research Problem:**

This research focuses on the impact of information technology on the modern accounting system, therefore the problem of research can be summarized as follows :-

- (1) Does information technology have good security aspects to journalize accounting transactions safely ?
- (2) Does information technology help to make accounting transaction more efficient and effective ?

## **Research Significance:-**

The significance of this research stems from the explaining of the impact of information technology on the accounting system and role of information technology in enhancing the level of efficiency and effectiveness of the accountant's skill. In addition this research can provide researchers with a perspective to understand the importance of information technology.

## **Research objectives:-**

- (1) To study the present impact of information technology on the modern accounting system.
- (2) To achieve adequate research result consisting of the problem examined and the conclusions of this study in an appropriate way.

## **Sources of Data Collection:-**

This paper is an outcome of secondary data. It includes books, research journals, research articles, research thesis, and internet and government reports.

**Research Scope:-**

The scope of the research is concern to the study of the impact of information technology on modern accounting system. The scope of the study is mainly related to solve the problem for the sustainable development of accounting system.

**Impact of IT on modern Accounting system :-****1) Faster Processing :-**

Computerized accounting system allow accountants to process large amount of financial information and process it quickly through the accounting system. Quicker processing times for individual transactions has also lessened the amount of time needed to closed out each accounting period. Month or year end closing periods can be especially taxing on accounting department, resulting in longer hours and higher labour expense. Shortening this time period aids companies in cost control, which increases overall company efficiency.

**2) Accuracy :-**

Information technology assists in the computation. Since accounting work is very detailed, accuracy in recording and reporting is greatly valued. One of the positively effects of this system is the fact that it lessens the possibility of increasing mathematical errors which is one of the problems experienced in the manual system.

**3) Increased Functionality :-**

Computerized accounting system have also improved the functionality of accounting departments by increasing the timelines of accounting information. By improving the timelines of financial information, accountant's can prepare reports and operations analyses that give management an accurate picture of current operations.

**4) Better External Reporting :-**

Reports issued to outside investors any stakeholders have been improved by computerized accounting system. Improved reporting allows investors to determine if a company is a good investment for growth opportunities and high value company. Companies can utilize these investors for equity financial, which may use for expanding.

**5) Flexibility :-**

Flexibility technology is severely needed in accounting departments. The accounting system must have the capability to adapt with change in business practices. Information technology associates with accounting create flexibility to accommodate the changes.

**6) Reliability :-**

Computer systems are immune to boredom, tiredness or fatigue. Therefore, these can perform repetitive functions effectively are highly reliable as compared to human beings.

**7) Storing and protecting information :-**

Information technology creates electronic storage system to protect company's valuable, record. Storage system, such as vital vaults, keep information safe by only allowing certain users within the company to access, withdraw add or change the documents and protect from being hacked or wiped out during a technological disaster.

**8) Economic Efficiencies :-**

Information technology resources can significantly reduce accounting costs. Redundant tasks can be centralized in one location through the use of information technology infrastructure. Economic efficiencies can be realized by migrating high cost function into an online environment. Companies can also offer email support for customers that may have a lower cost than a live customer support call. Cost savings could also be found through outsourcing opportunities remote work options and lower cost communication options.

**9) Reduction of paper usage :-**

The utilization of electronic envelopes and documents reduce the usage of papers in accounting process. Thus, it reduces costs and of course it draws the entity away from the environmental issues regarding trees and paper usage.

**10) Graphics Software :-**

This software creates graphs, photos and charts from data input in order to facilitate better understanding of the topic. This is usually used in financial reporting.

**Limitation:-****1. Heavy cost of Installation :-**

Computer hardware needs replacing and software needs to be updated from time to time with the availability of newer versions.

**2. Cost of training :-**

To ensure effective and efficient use of computerized system of accounting, newer versions of hardware are introduced. This requires special training and cost is incurred to train the staff personally as specialists.

**3. Disruption in work :-**

When computerized system is introduced, there might be loss in the work time and certain changes in the working environment.

**4. System Failure :-**

The danger of system crashing due to some failure in hardware can lead to subsequent loss of work. This occurs when no back-up is retained.

**5. Health Dangers :-**

Extensive use of computers may lead to many health problems such as eyestrain, muscular complaints, backache etc. resultantly reducing working efficacy as well as increasing medical expenditure.

**Conclusions:-**

Information technology advancement has greatly helped the accounting systems of business entities. Because of today's computerized accounting information systems, business performance seems to improve many transaction processes were simplified thus creating efficient operations. The affordability of computer technology for small business entities creates great opportunities for these entities to improve their business. Information technology advancements made effective and efficient information flow that enhances managerial decision making, thereby increasing the firm's ability to achieve corporate and business strategy objectives.

**Recommendations:-**

According to the conclusion of the research, the researchers recommended the following :-

- (1) The use of information technologies in an accounting system must be determined by international standards issued by relevant professional organizations.
- (2) All companies should invest part of their profits in developing software for accounting system.
- (3) All companies must use accounting software efficiently and effectively to obtain the highest level of advantages of this software to overcome the disadvantages of the implementation of information technology.

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# Human Rights of Senior Citizens: A Social Perspectives

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## Abstract

One who has age of 60 and above called a senior citizen. By the natural cycle of human being, growing age indicates gradually weakening of the body and the mind. It also weakens the strength and working ability of a person. To take care of one's old age is the prime duty of the state as well as the family of a person. Many of senior citizens are unaware of their rights, due to rampant illiteracy and lack of attentiveness. Government provides financial assistance and many concession and welfare schemes for senior citizens. Also we can trace that there are many public and private sectors of the society making available aids for them. We are proud of our country which has required laws and enactments which help to protect the rights of senior citizens. In this article, the researcher intends to shed lights on the rights and facilities available to the elders.

**Key words:** *Human rights, Senior citizen, Welfare measures, Laws*

## Introduction

With respect to human rights, laws and legal system maintains an order of a healthy society. Naturally, human rights can be seen as certain basic and inalienable rights of human beings which are rational beings. Society is structured to be governed by the laws existed in the state. The law talks about the problems confronted by the society. The era shifts its concerns towards the human rights of senior citizens and the problem of maintenance of senior citizens.

We cannot generalize that old age equals to inabilities. No doubt, old age gradually is about decreasing their capacity, both physical and mental. The Maintenance and Welfare of Parents and Senior Citizens Act 2007 highlights that a 'senior citizen' is any person who has reached the age of sixty years or above. It is a significant share of them, fulfilled with serving their family, society and eventually our nation during their adulthood. It is perceived that senior citizens face many problems. Their securities are overpowered, their fundamental rights are violated, alienated from basic needs and they are ignored by even their own family. It is essential to take care of them as much as infant children. This research paper sheds lights on the human rights of senior citizens, as an upcoming area of concern in the society.

## Objectives

1. To observe the demography of population of senior citizens in India over a period of time.
2. To know the rights of senior citizens.
3. To point out the various problems of the senior citizens.
4. To study the various Laws of maintenance and welfare measures relating to senior citizens.

## Methodology

The present study is depend upon the primary as well as secondary data. For the collection of the primary data, 30 senior citizens were personally contacted and the data is collected through the interview schedule. The secondary data is collected through the reference books, surveys, reports and articles.

## Demography of Population of Senior Citizens

The improvement in health care facilities over the years has resulted in increase in life expectancy and increase in proportion of population of senior citizens. The current trends of population shows the lowering birth rate and death rate and the population of senior citizen is growing section of the society in India. The projected population of senior citizens (60+) and their % share in the total projected population of the country for the period from 2006 to 2026 is given in following table.

**Table No. 1**  
**Projected Population of Senior Citizens**

Year	Projected Senior Citizens Population (in Crore)			% of Total Population		
	Person	Male	Female	Person	Male	Female
2006	8.36	4.07	4.28	7.5	7.1	8.0
2011	9.85	4.81	5.03	8.3	7.8	8.8
2016	11.81	5.81	5.99	9.3	8.8	9.8
2021	14.32	7.06	7.26	10.7	10.2	11.3
2026	17.32	8.46	8.86	12.4	11.7	13.1

*Source: 2013-14 Annual Report of Ministry of Social Justice & Empowerment*

As seen in the above table, in 2006, 7.5 percent of the total population were aged 60 years and above. These figures are projected to go up to 12.4 percent by 2026. According to census report 2011, the proportion of population of senior citizens is 8.57 percent in total population of India which is shown below-

#### 2011 Census Population of Senior Citizens

2011 Census Population (in Crore)	Person	Male	Female
All India Population	121.05	62.31	58.74
Population of Senior Citizens (60 +)	10.38	5.10	5.28
As % to Total	8.57	8.20	8.99

[Source: 2013-14 Annual Report of Ministry of Social Justice & Empowerment]

#### Rights of senior citizen

Various Laws of our country provide many rights in favour of senior citizen. Some of them include:

- Right for maintenance by children and relatives.
- Right for proper medical aids and other related problems.
- Right for social security and integrity.
- Right for old age pensions and other related benefits.
- Right against exploitation and ill treatment by others.

#### Problems of Senior Citizens

Traditional Indian Society favoured joint family system, which gives importance to respect for elderly person. However, due to changing lifestyle, socio-economic and value system is changing gradually. Joint family system is replaced with the nuclear family system. Consequently, many senior citizens are now forced to spend or sometimes they willingly spend their twilight years all alone. Few are taking shelter in Old Age Homes willingly or unwillingly. Thus, the number of Old Age Homes are increasing day by day. It has resulted in increasing number of problems of senior citizens such as-

- Economic Problems-** include loss of employment, financial dependency, low income, maintenance problems and financial insecurity.
- Physical & Psychological Problems-** include medical and health issues, nutritional deficiency, treatment and hospitalization problems, psychological insecurity issues.
- Social Problems-** include social adjustments, elder abuse issues, lack of love and affection from family and relatives etc.

The data regarding the problems of senior citizens mentioned above is collected with the help of interview schedule and it is analyzed and presented in the following table.

#### Problems of Senior Citizens

Sr. No.	Nature of Problem	No. of Respondents	Percentage
1	Economic Problems	16	53.33
2	Physical & Psychological Problems	22	73.33
3	Social Problems	12	40.00

The data regarding the problems of senior citizens is presented in the above table. The data shows that the proportion of senior citizens is highest those who are suffering from physical and psychological problems (73.33 percent). Whereas 53.33 percent senior citizens are suffering from economic problems and 40 percent senior citizens are suffering from social problems. Physical and psychological problems are the major problems in which senior citizens are suffering in their daily life.

#### Welfare measures for Senior Citizens-

Maintenance and Welfare of Parents and Senior Citizens Act, 2007 aims at providing maintenance to senior citizens in order to avoid their hardship. It also pursues to safeguard the life and property of the senior citizens. It foresees setting up Old Age Homes in every district. Maintenance supposed to cover basic requirements of life. We can see some of the welfare measures for Senior Citizens with this Act and others too.

- A childless senior citizen can claim maintenance from any relative who hold his property or who would inherit it.

- There is a provision of imprisonment if a person fails to pay for maintenance as per the order of the court of law.
- The Act offers for formation of at least one old-age home in each district with a capacity to shelter 150 senior citizens.
- The Act prescribes punishment for the abandonment of parents or senior citizens by a person who is liable to take care of them.
- The income tax slabs are different for senior citizens and super senior citizens. Income up to 3 lakhs for senior citizens and 5 lakhs for super-senior citizens is tax-free
- The amount received by a senior citizen under reserve mortgage scheme is exempted from income tax.
- Under the National Old-age Pension Scheme Central Government is to pay a pension of INR 200 to senior citizens belonging to the BPL household. Another INR 200 is provided by the State Government.
- The railway ministry provides a concession of 30% and 50% in railway fare to male and female senior citizen respectively above the age of 60 years.

Apart from all these schemes and facilities, there are positive measures taken by the government under National Policy on Older Persons, 1999 whereby a separate department in the ministry of Social Justice & Empowerment for the senior citizens was arranged. It also aimed at setting up of councils of older persons in the states, National Council for older persons and an autonomous National Association of Older Persons. These bodies are established to look into the problems of the elderly and work towards their solution.

#### **Conclusions-**

Thus, it can be stated that there are countless problems faced by senior citizen of our country such as lack of proper care, good medication and carelessness from the family members as well as the society and numerous acts which may affect even their life and property as well. Government has executed many schemes and projects like pension scheme. Apart from this, what they need is love, care and affection from their relatives and the society. We have to take review of this matter in relation to our own family and must to upgrade our attitude towards them which may slightly change their life for better tomorrow.

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# Spatio-temporal Change detection in Beach Morphology: a Case Study of 'Devbag-Karli Recurve-Beach-Spit' along South Konkan of Maharashtra

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## Abstract

The present work concentrates ephemeral dynamics of morphology of a Devbag-Karli extended beach along the coordinates of 15°58'20.07'' North Latitude - 73°30'00.77'' East Longitude, in Malvan tahsil of Sindhudurg district of Maharashtra. For the investigation of spatio-temporal changes since 2003 to 2013 are marked and monitored with help of depth and height measured offshore, foreshore and backshore from Google earth images supported by fieldwork measurement. Further the data duly processed with Arc Map-9.3 and Global Mapper-13 to show DEM and 3-D graphics of the same terrain. It is therefore, inferred from the investigation that, the absolute area covered by beach-spit in 2003 was maximum ever (83411 sq m) than the subsequent years 2009, 2011, 2013 (57784 sq m). The said area curtailed by the amplified rate of erosion towards the leeward that is from Karli estuary due to series of flash floods intrusion in sea of Devbag. Due to the same reason enormous fluvial load deposited about 740 m leeward in estuary and formed a tiny islet irrelevantly named as 'Tsunami Island'.

**Key Words:** Morphology, beach, spit, shore, absolute area, estuary.

## Introduction:

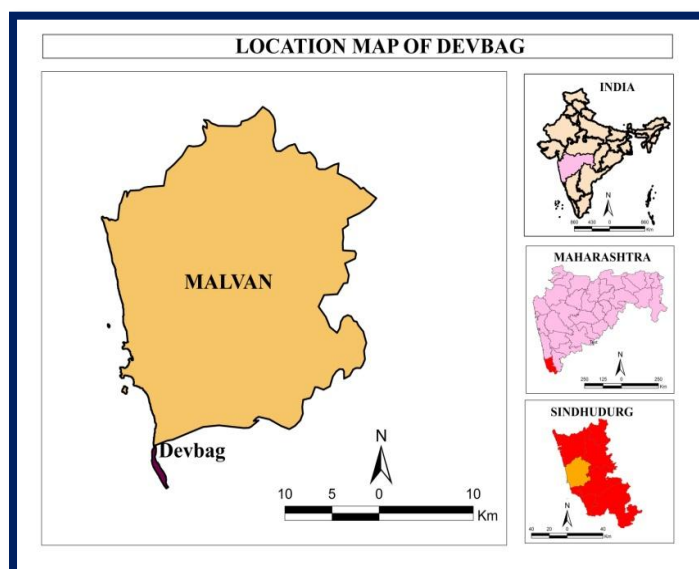
India has two coastal plains, one is western coastal plain and another is eastern coastal plain. Western coastal plain is situated near Arabian Sea and eastern coastal plain near to Bay of Bengal. Western coastal plain is divided in four parts: Gujarat coast, Konkan coast, Kannad coast and Malabar coast. The present study is concentrated on Konkan coast, Devbag (Malvan, Sindhudurg). In Konkan common coastal landforms are beach, island, cliff, sand spit, sand bar, head land and tombolo which formation is depended on sea waves, currents, wind direction, rainfall, sun rays and geological structure. The landform's origin and development is depended on geomorphological processes and its geological structure. This study is about spit, which is near to Karli creek. 'A spit is a long narrow accumulation of sediment (sand or pebbles) with one end attached to the land and the other projecting into the sea or across the mouth of an estuary': (Gold Coast Shoreline Management Review, March 2006). The Devbag spit morphology is depended on Karli creek, because Karli River is collect the more sediment and deposited it in Karli estuary. The settlement also established on the same spit. This spit is dangerous for settlement because of it's continuously change.

## STUDY AREA:

Devbag is a small fishing village of Malvan tehsil in Sindhudurg District. It is near to Karli creek, located 10 KM towards south from Malvan. It is adjacent with Tarkarli beach. Its end is called as Devbag Sangam. Devbag extends from 15°58'20.07'' North Latitude to 73°30'00.77'' East Longitude. The researchers interested in Devbag because of its dynamic changes of spit in Karli creek. The study is focused on spit change.

**Figure 1: Location Map of Devbag**  
**DATA BASE AND METHODOLOGY:**

The success of research is depended on Methodology, so it plays important role in research work. For the present work the remote sensing data used to identify the Devbag Spit long term changes. Google earth images from 2003 to 2013 are used to show the dynamic change. GIS software; Arc Map version 9.3 to digitize the map and Global mapper version 13 to show the 3D height view and cross section of Devbag change. The contour map is developed in ArcGis



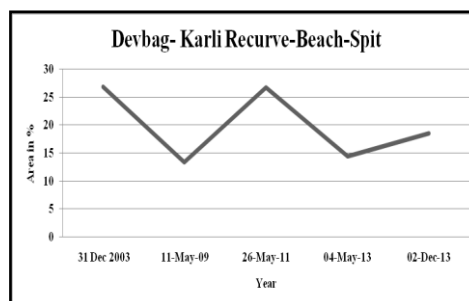
with the base of Google Earth. The field survey is done to collect the photo and information from local people.

Google Earth	
Acquisition Date	31 December 2003
	11 May 2009
	26 May 2011
	4 May 2013
	2 December 2013
Scale	100 Meter

#### DEVBAG LONG TERM CHANGES:

The Remote Sensing data is very useful for identified each and every area long term and short term changes. For this present work 10 years changes of Devbag spit find out with the help of Google Earth. The spit landform is totally depended on short river, its deposition and erosion processes, wind and sea waves. The Devbag spit is very dynamic, because the marine action and estuary affected on the same spit. It is adjacent with Tarkarli beach, which is the main continuous beach. The deposited material from Karli estuary is very small and loose, it is a totally sandy spit, so erosion process is also early and fast. The next table shows the area of spit change in last 10 years.

Year	Area in sq m	Area in %
31 Dec 2003	83411	26.81396
11 May 2009	41721	13.41196
26 May 2011	83139	26.72652
4 May 2013	45018	14.47184
2 Dec 2013	57784	18.5757
Total	311073	100



**Table 1: Year wise Devbag-Karli Recurve-Beach-Spit changes**

The area of spit is in 2003 is maximum than in ten years that is 1206 m, in 2009, 2011, 2013 and 2014 the area is 683.47, 1151, 614.27 and 873.37m. The spit growth is decrease in 2009, 2013 and 2014 but increased in 2011. These changes are started after tsunami, and near to this spit in Karli estuary the new island is emerged that is Tsunami Island approximately 740m far from end of spit. This island become obstacle to provide material to the main Devbag spit from Karli estuary. The change is mostly identified around the location 15°57'58.78'' North Latitudes to 73°30'11.63'' East Longitude

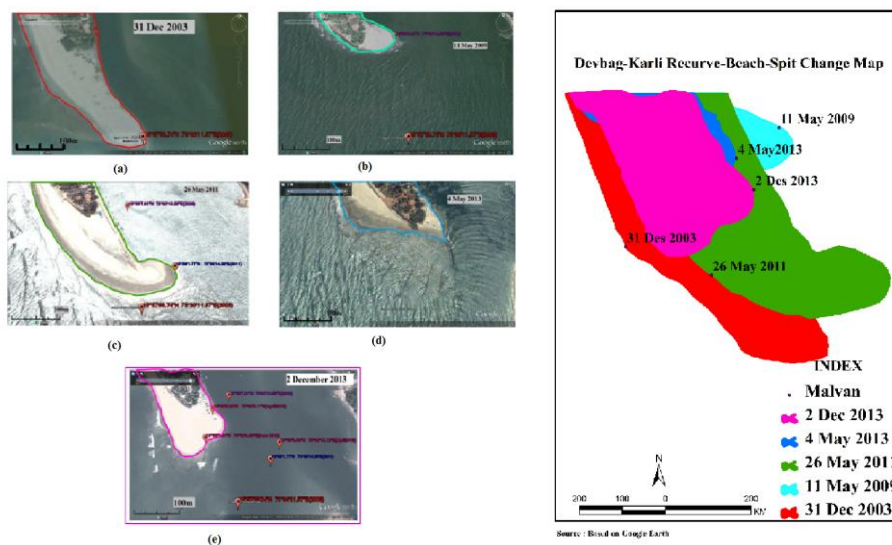


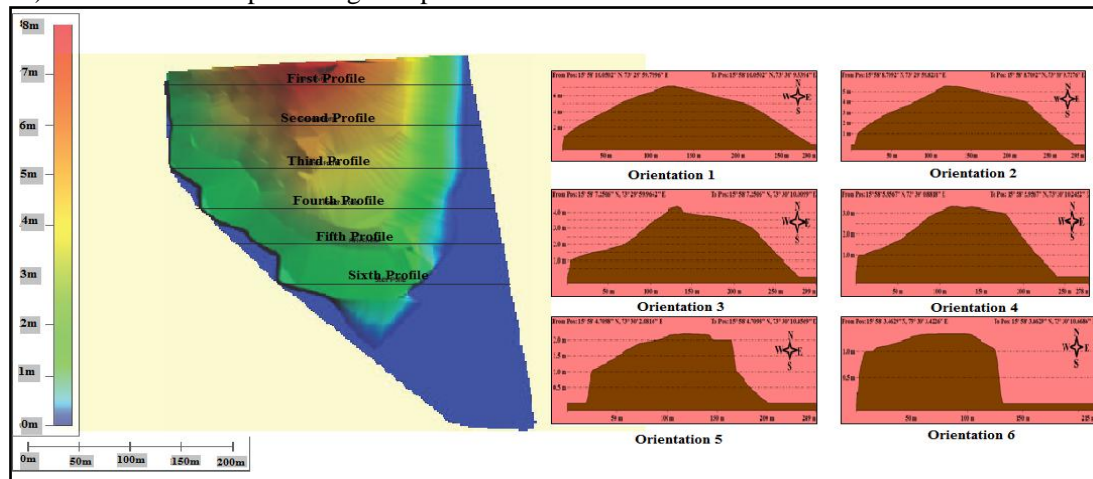
Fig.3: (a) ,(b), (c), (d) and (e) images shows Devbag-Karli Recurve-Beach-Spit changes year wise (Source: Google Earth)



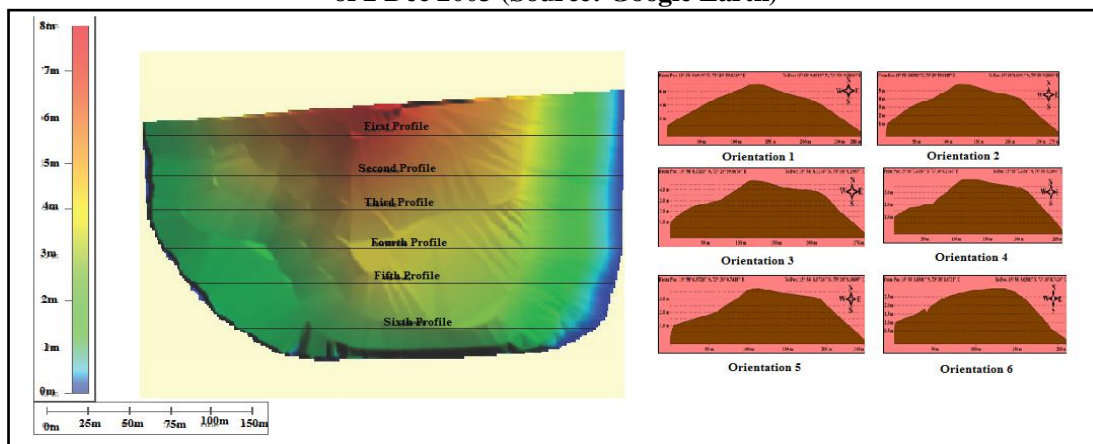
The tourism activity is started on this beach and also on the Tsunami Island. The settlement is also established on the same. The human activities and tourist are also responsible for this erosion. The long shore currents are also take material away from spit. With the help of Google earth, the height is finding out and creates the contour map. The following contour map gives the idea about spit height with 3D view.

The maximum height is 8 m on the respected spit from sea level. The settlement is only near to 100 m far from the end of spit. The spit profiles give the idea about the length, width and height of spit. The six places choose for showing the profile of spit. The next figures show the profiles of Devbag spit from west to east direction, which is in between Arabian sea and Karli estuary.

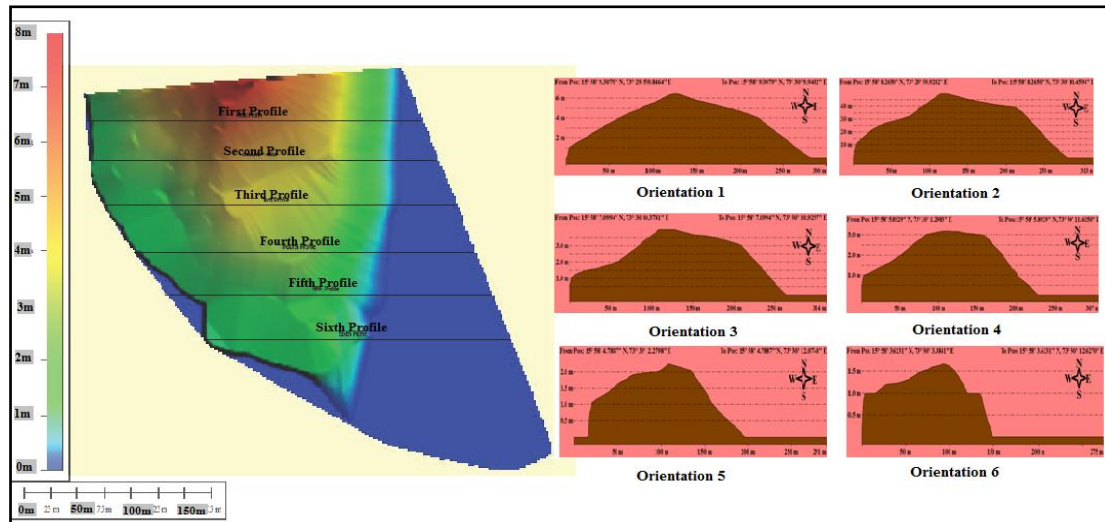
From these profiles find out that the width of Devbag spit is near to 280 m. North to south the width become narrow and height is become less from 8 m to 1 m. from sea level. The half area of spit is in ten years from 2003 to 2013 under the sea water. In present days there are artificial sand bars (wave breaker) of 30 x 30 m. for protecting the spit.



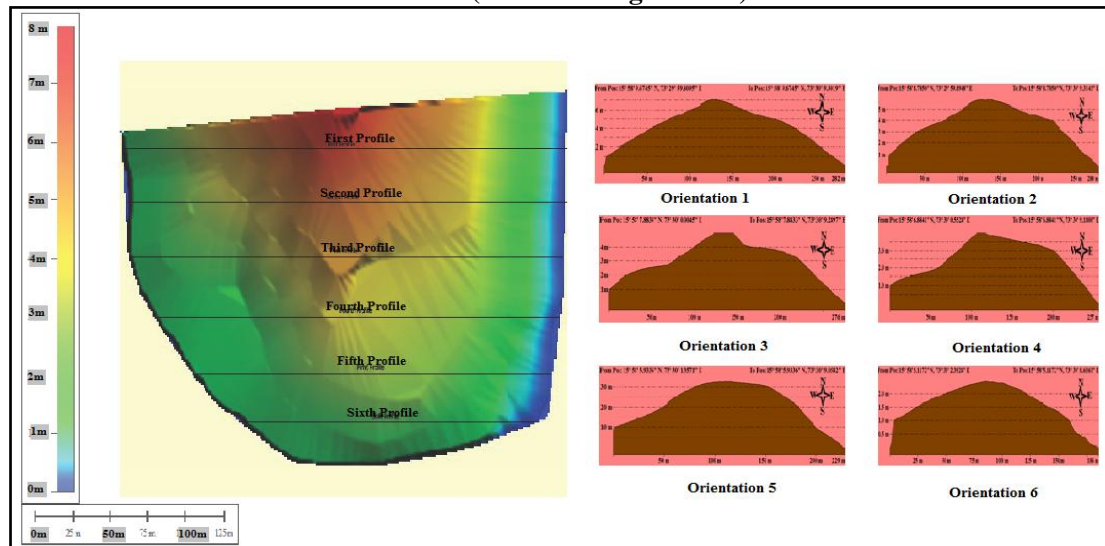
**Fig.4: Devbag-Karli Recurve-Beach-Spit 3D model and west to east Orientations of 2 Dec 2003 (Source: Google Earth)**



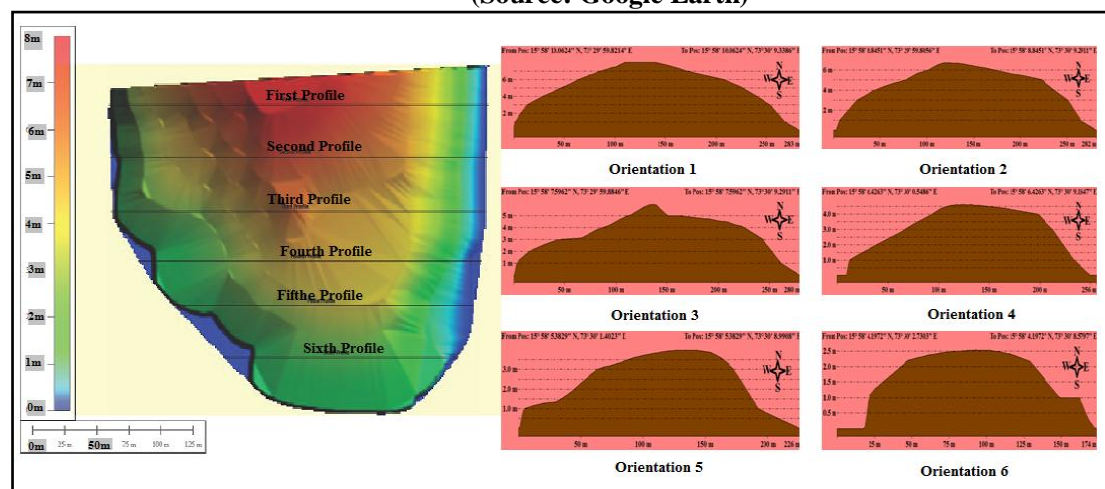
**Fig.5: Devbag-Karli Recurve-Beach-Spit 3D model and west to east Orientations of 11 May 2009 (Source: Google Earth)**



**Fig.6: Devbag-Karli Recurve-Beach-Spit 3D model and west to east Orientations of 26 May 2011**  
(Source: Google Earth)



**Fig.7: Devbag-Karli Recurve-Beach-Spit 3D model and west to east Orientations of 4 May 2013**  
(Source: Google Earth)



**Fig.8: Devbag-Karli Recurve-Beach-Spit 3D model and west to east Orientations of 2 Dec 2013**  
(Source: Google Earth)

#### CONCLUSION AND SUGGESTION:

It is therefore, inferred from the investigation that, the absolute area covered by beach-spit in 2003 was maximum ever (83411 sq m) than the subsequent years 2009, 2011, 2013 (57784 sq m). The

said area curtailed by the amplified rate of erosion towards the leeward that is from Karli estuary due to series of flash floods intrusion in sea of Devbag. Due to the same reason enormous fluvial load deposited about 740 m leeward in estuary and formed a tiny islet irrelevantly named as ‘Tsunami Island’. From this study one can find out that the erosion of spit is persistently in high rate that is unsafe for settlement. However, the spit helps to protect the settlement from sea waves and also it is important place for seagull birds, and other marine environment. Local government has to give attention to protect this spit and reestablish the settlement from this area to in proper village. Thickness of the coconut and cashew-nut vegetation should be increased on the spit. From the view of the coastal management the barrier or sea wave breakers should be constructed near spit.

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# GIS-Based Spatio-Temporal Rainfall Variability – A special Emphasis On The Indo-Gangetic Plains, India

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## Abstract

This study aims to examine the spatial variability of annual, seasonal and monsoon monthly rainfall sequence over Indo-Gangetic Plains (IGP), India and its impact on environmental issues. The monthly rainfall data for 80 rain-gauged stations of the study region for the period 1951-2000 have been analysed to understand the spatio-temporal spreading or contracting the area under different rainfall conditions. This study analyses the detailed climatological and fluctuation characteristics of the whole country & IGP using longest instrumental monthly rainfall data; and the wet/dry spells and their extremes across India using the daily rainfall data of the country for the period 1951-2015. The probability distribution of starting date, ending date and duration of the wet season is near-normal for the majority of the river basins and there is no significant long term trend in the parameters of the wet season for any of the basins though exhibits a large spatial and temporal variation. The detailed fluctuation characteristics of the wet season, dry/wet spells along with their extremes and rainfall across India are expected to provide vital information under changing environmental conditions as well as the combat twin problems of flood and drought.

**Keywords:** Rainfall trend, India, IGP.

## Introduction

### Geographical Location

India lies between 8°4' and 37°6' N Latitude and 68°7' and 97°25' E Longitude. This seventh largest country in the world spreads over an area of 3,166,414 sq. km., including Lakshadweep Island in the Arabian Sea and the Andaman and Nicobar Islands in the Bay of Bengal. India is bounded by the Arabian Sea on its west and south west and the Bay of Bengal on its east and south east and the Himalayan Mountain ranges borders the country on its north.

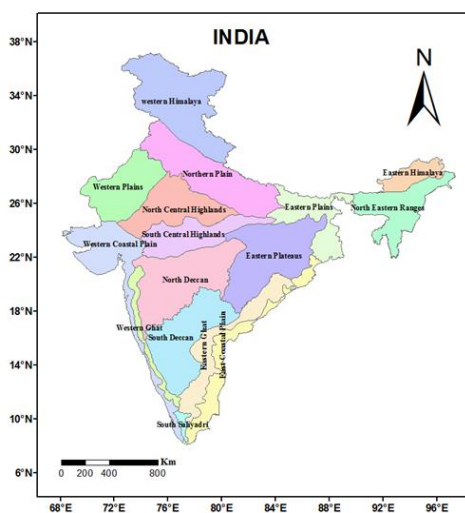


Figure 1.1: Map showing the Physiographic divisions of India

. Physiographically, the study area is divided into eight provinces (Punjab Plain, Ganga-Yamuna Daob, Rohilkhand Plain, Avadh Plain, North Bihar Plains, South Bihar Plain, Bengal Plain and Bengal Basin). The Indo-Gangetic Plains incorporates states-Punjab, Haryana, Uttar Pradesh, Delhi, Bihar and west Bengal, except eleven districts. The entire region under study has more than 70 percent land under agriculture use. The Indian segment of Indo-Gangetic Plain (IGP) comprises of

### The Study Area – Indo-Gangetic Plains

The Indo-Gangetic Plain (IGP) comprises the flood plains formed by the Indus and the Ganga rivers covering an area of about 4, 54,431 sq km (Figure 1). Though the overall topographic situation

remains fairly uniform with elevations of 150 msl in the Bengal basin, and 300 m amsl in the Punjab plain (Shankarnarayana 1982). The general slope of the ground is from west to east i.e. 200 meters above msl in the west to near sea level in the east. Annual rainfall varies from 300 mm to 1600 mm increasing towards east at the rate of roughly 0.6 mm/km. Thornthwaite's scheme of climatic classification, five types of moisture regimes can be identified in Indo Gangetic Plains as arid, semi-arid, dry subhumid, moist sub-humid and humid. Types of weather events are highly dependent upon the season- a year is broadly divided into four seasons, winter (January-February), summer (March-May), summer monsoon (June-September) and post-monsoon or north-east monsoon (October-December; Singh & Sontakke 2002). This region is now the home to about million people. The region is largely recognised as the "bread basket" for south Asian countries producing about 30% of the rice and 42% of the wheat, 21 % of the geographical area of the country. 40% of the population lives in this area. The Indo-Gangetic plains, also known as the "Great Plains,"

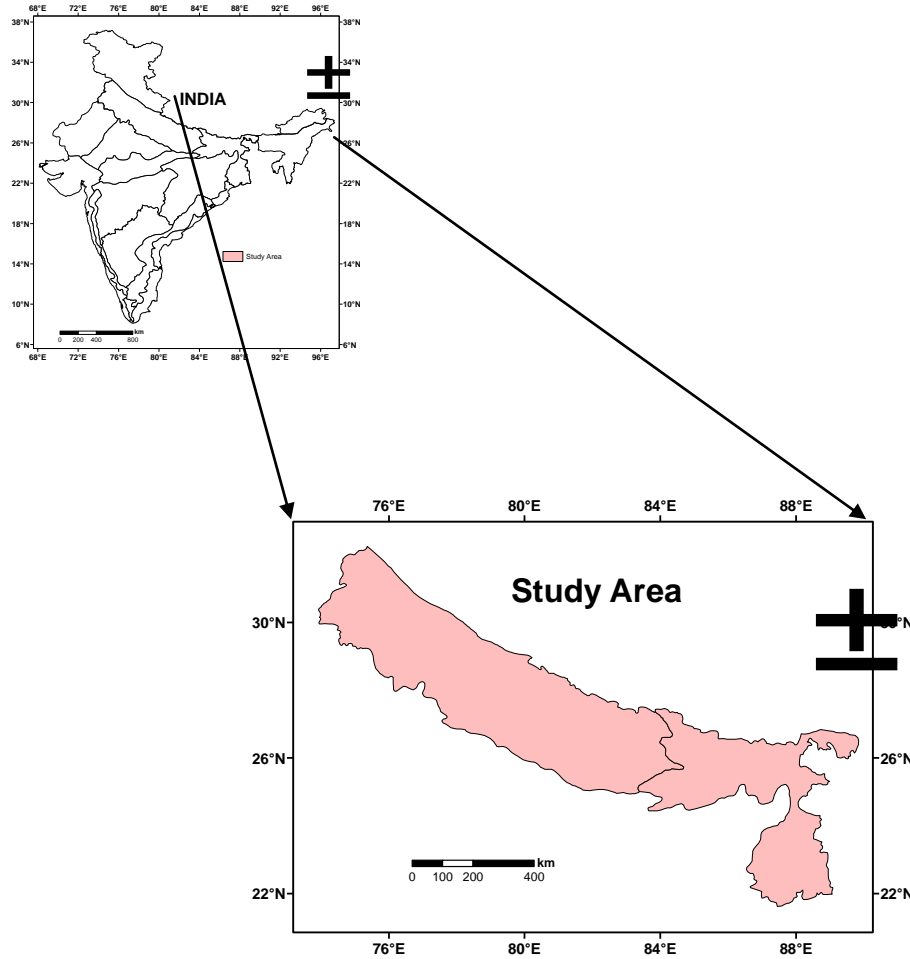


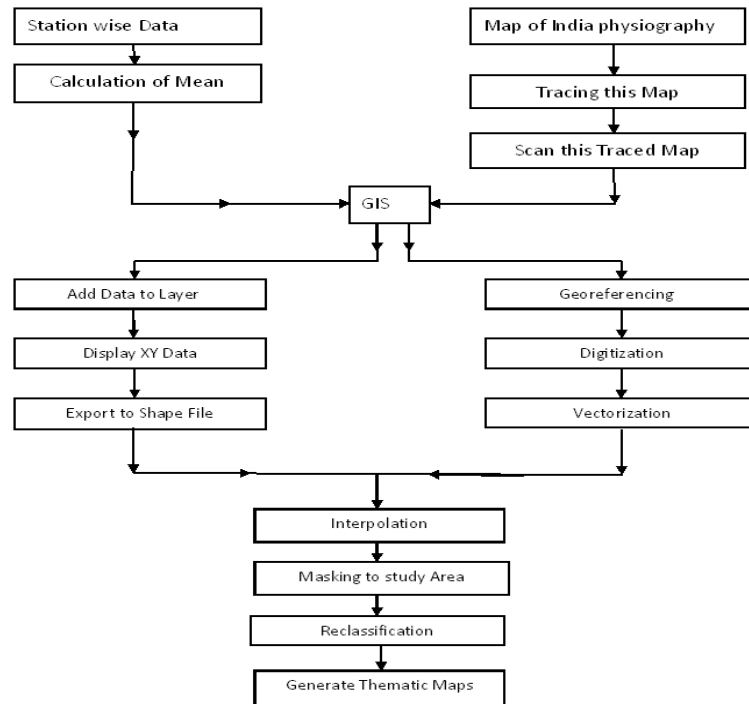
Figure 2.1: Map showing the study region, The Indo-Gangetic Plains, India

#### Materials and Methodology:

##### Indo Gangatic Plain

MOUNTH	THRESHOLD VALUE				
	VD	D	N	W	VW
JUN	< 71.6	71.6-72.7	72.7-85.3	85.3-113.8	>=113.8
JULY	< 220.3	220.3-244	244-299.3	299.3-374.7	>=374.7
AUG	< 227.4	227.4-244.5	244.5-262.3	262.3-382.7	>=382.7
SEP	< 134.1	134.1-177.8	177.8-182.2	182.2-189.4	>=189.4
JJAS	< 737.5	737.5-818.5	818.5-850	850-876.1	>=876.1
ANNUAL	< 906.2	906.2-955.4	955.4-1030.7	1030.7-1073.2	>=1073.2





Methodology Flow Chart

## RESULTS AND DISCUSSIONS

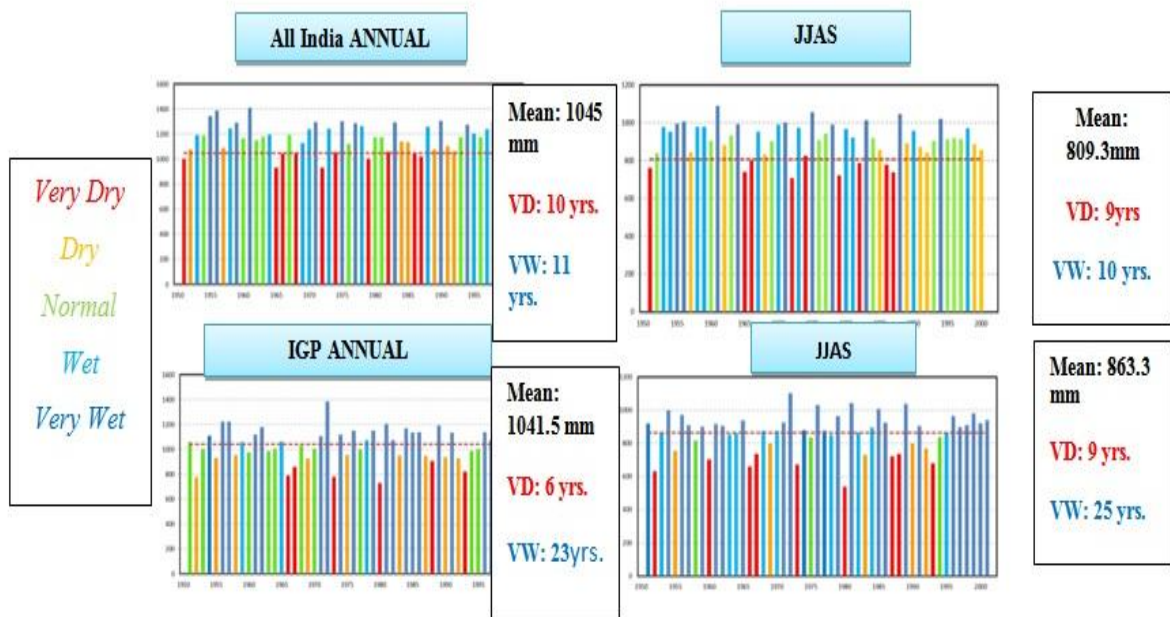
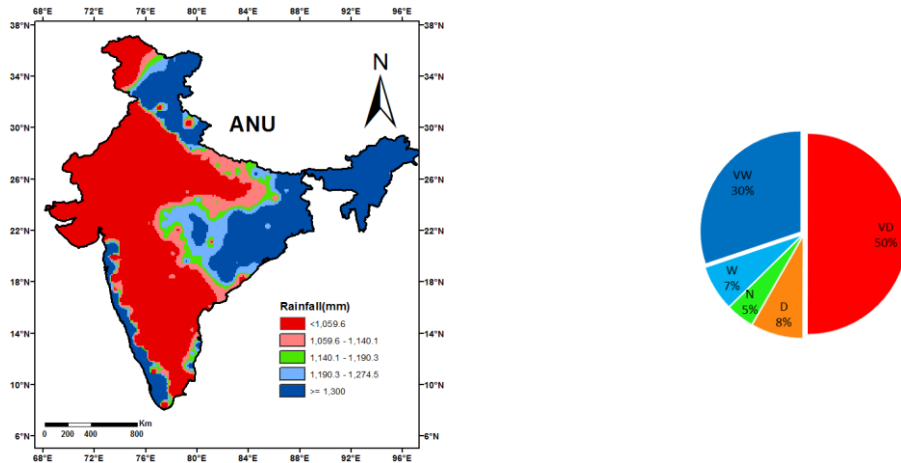
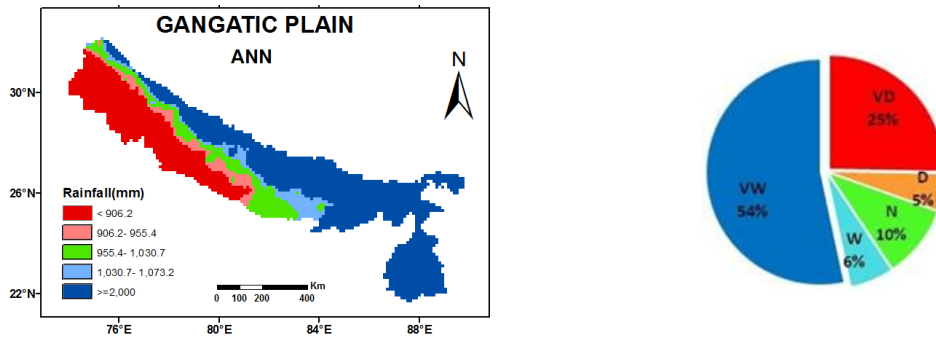


Figure 3.1 Bar graphs showing year wise mean rainfall (1950-2000)

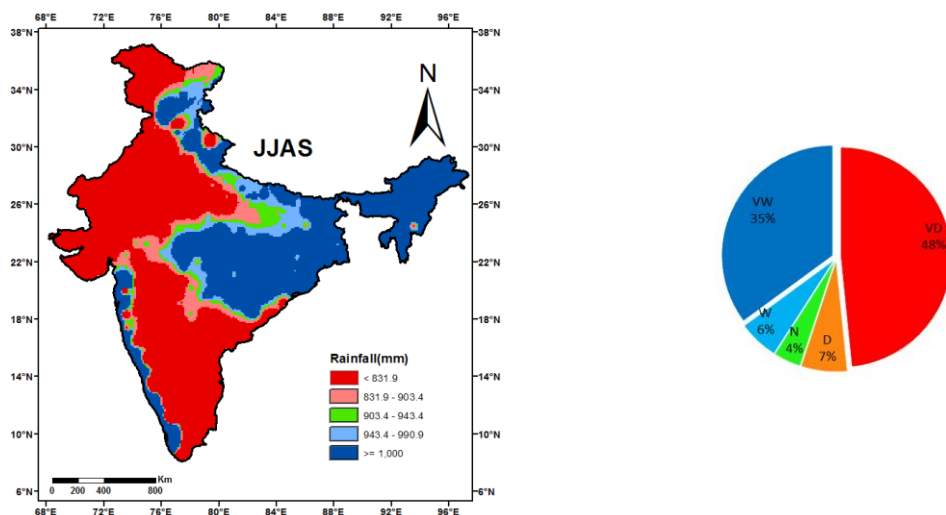
**Figure 3.1 Bar graphs showing year wise mean rainfall (1950-2000)**



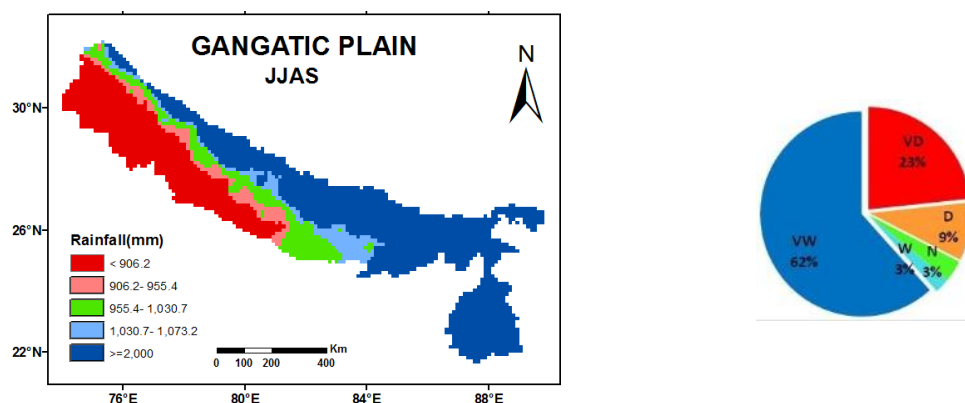
**Figure 4.1: Mean spatial variability of rainfall over India for the month of Annual**



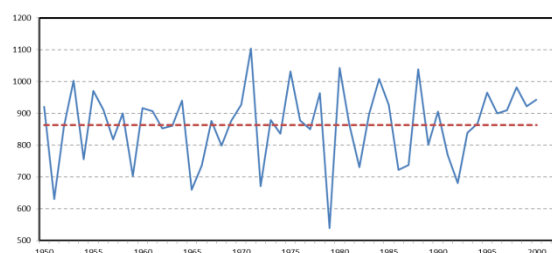
**Figure 4.2 : Thematic map and Pie chart showing the different categories of Annual rainfall over IGP study area**



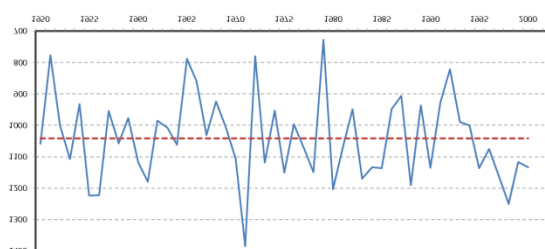
**Figure 4.3: Thematic map & Pie chart of Mean spatial variability of rainfall over India for the JJAS.**



**Figure 4.4: Thematic map and Pie chart showing the different categories of JJAS rainfall over the IGP area.**



**Figure 5.1: Line graph showing the rainfall variation during 1950-2000 for the month of JJAS over the study region. Horizontal Dashed red line indicates mean rainfall; dotted black lines indicate Mean+ Standard deviation.**



**Figure 5.2: Line graph showing the rainfall variation during 1950-2000 for the month of Annual over the study region. Horizontal Dashed red line indicates mean rainfall; dotted black lines indicate Mean+ Standard deviation.**

### Conclusion

Fluctuation characteristics of annual, seasonal and monsoon monthly rainfall have been reported for physiographic provinces of the IGP as well as for the study region (IGP) using the available instrumental rainfall records from well-spread 316 raingauge stations. For the period 1951–2000, with data available for all the selected raingauges, the area-averaged rainfall series has been prepared from simple arithmetic mean of the gauges in the particular region.

The recent trend in annual rainfall fluctuation over the study region (IGP) and four physiographic provinces (Punjab Plain, Ganga-Yamuna Doab, Rohilkhand Plain and Avadh Plain) decrease since 1999 whereas show an increasing tendency since 1967 over the remaining four physiographic provinces (North Bihar Plain, South Bihar Plain, Bengal Plain and Bengal Basin). For the country as a whole slight decrease in annual as well as summer monsoon rainfall fluctuation can be seen since 1962.

### Acknowledgment

I would like to express my deep sense of gratitude to our esteemed and inspiring Research Guide Dr.H.N.Reddy and Head of the Dept. Dr.M.N. Surayanshi. Also sincerely acknowledged SARTHI



institute, Pune for financial support for my Ph.D. work. Last but not the least, i would sincerely like to thank to all my friends and family members who always give me a big cheer-up from time to time.

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# Delineation of Crop Combination Region In Man River Basin

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## Abstract

Weaver (1954) crop combination technique is important technique for the delineation of agricultural region. Man basin is located in drought prone area of Maharashtra state in India. The development of agriculture in basin area need to strategic plan. Weaver technique provides the base to the agriculture development. Farmers cultivate integrate various crops in a region. The physical, socio-economical factors affect the crops in the any region. Farmers were cultivates crops based on only rainfall but this situation is changed in 2010-11 due of various socio- economic factors. Wheat, Jowar, Bajara, Maize, Pulses, Sugarcane, Spices, Fruits and Vegetables, Cotton, Oil Seeds, Medicinal Plants and Fodder crops has been taken in account for study. Two decadal crops data has been taken in to account for the study of present research paper.

**Key word:** Crop combination, Agriculture region Weaver's method

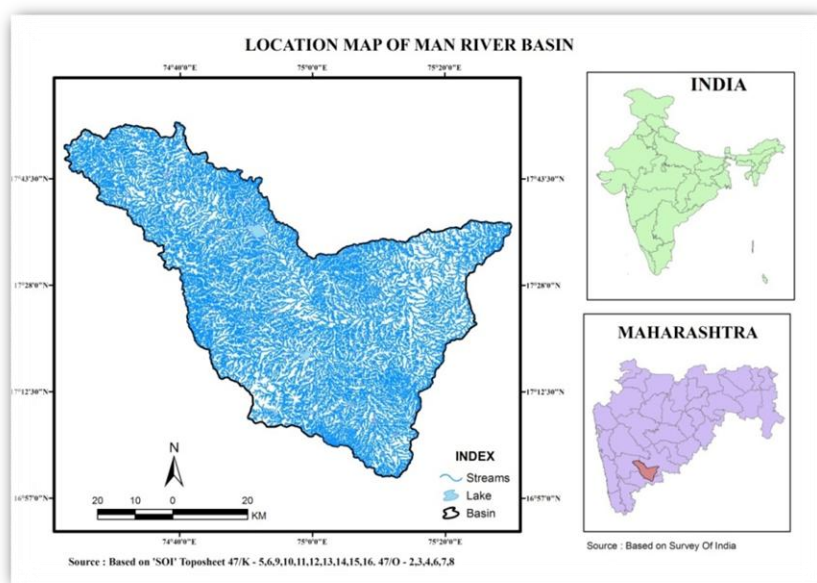
## Introduction:

Agriculture is major activity in rural India. Farmers in rural areas cultivate different crop in the season. The study of crop combination helps for regional agricultural planning and development provides an excellent mosaic of agricultural regionalization. Crop combination is an important term of understanding the relative position of individual crops as well as distributional analysis and construction of agricultural region. The method of crop combination was introduced in geographical research by Weaver (1954) in his study of crop combination in Mid-Western United states. In the present paper Weaver's crop combination method has been applied for delineation of crop combination region. Man is seasonal river in western Maharashtra. The entire basin is located in drought prone area of the state. Agriculture was totally depends on the availability of good rainfall but in the recent year number of irrigational project were completed, developed micro irrigation facilities, farmers become aware about cultivation of crops as the result the entire basin is being changed in different crop combination region.

## Study Region:

Man river basin is known as 'Mandesh'. It extended from 16° 59' 56" north to 17° 51' 48" north latitudes and 74° 22' 30" east to 75° 30' 30" east longitudes. The basin lies in the Satara, Sangli and Solapur district of Maharashtra State. The River man flows toward the south-west direction and its confluence to Bhima river at Sarkoli Village in Phandhapur tahsil of Solapur

district. Belvan, Korada, Aprupa are the main tributaries of Man River. **Location Map**



**Objectives:**

To find out crop combination region in Man River Basin.

To study the change in crop combination region in Man River Basin.

**Database and Methodology:**

The data has been taken from Govt. Agencies, agricultural department, District census handbook, District socio-Economic and Statistical abstract. Weavers Crop combination statistical method has been used in to find out the crop combination region. In order to assess the crop combination, the following Weavers calculation steps applied

**The theoretical curve for the standard measurement was engaged as follows:**

- ☐ ☐ Monoculture = 100 % of the total harvested crop land in one crop.
- ☐ ☐ 2crop combination = 50 % in each of two crops
- ☐ ☐ 3crop combination = 33.33 % in each of three crops
- ☐ ☐ 4crop combination = 25 % in each of four crops
- ☐ ☐ 10crop combination = 10% in each of ten crops

For the determination of minimum deviation the SD method

The expression is  $SD = \sum d^2/n$

Where, 'd' is the different between the actual crop percentage in a given areal unit and the appropriate percentage in the theoretical and 'n' is the number of crops in a given combination.

**Result and Discussion****Table: - 1****Tahsil wise area under each crop in per cent**

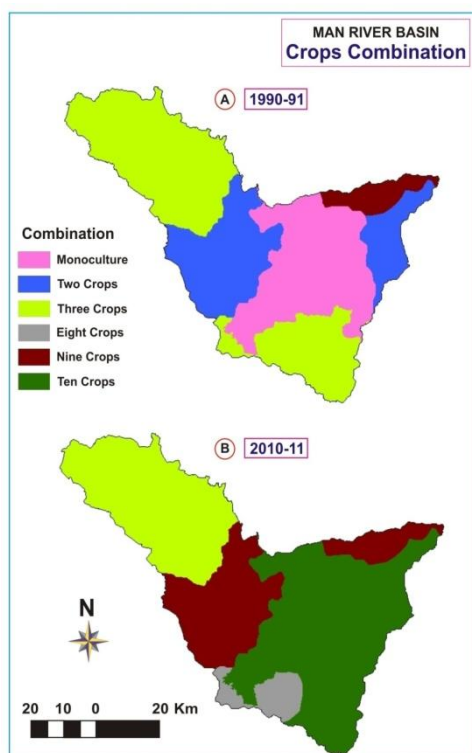
Crops Name of Tahsil	Bajara		Cotton		Fodder		Fruits & Vegetables		Jowar		Wheat		Maize		Oilseeds		Pulses		Sugarcane		Other crops	
	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11	1990-91	2010-11
Man	36.8	34.7	0.28	0.93	33.2	4.83	1.76	6.67	17.5	24.4	0.78	3.42	0.13	0.41	0.36	2.21	8.43	18	0.59	4.14	0.22	0.37
Mangalwedha	21.4	6.24	0.42	1.06	4.4	2.68	0.85	6.14	56.5	51.7	2.56	3.44	0.82	3.33	2.3	9.94	8.35	6.41	2.17	8.7	0.29	0.32
Pandharpur	3.12	1.15	0.44	0.66	3.37	2.13	1.45	5.02	62	60.5	4.5	6.97	3.41	3.61	1.99	4.33	4.65	7.51	14.6	7.63	0.48	0.44
Sangola	4.8	7.05	0.39	1.95	1.06	2.72	1.23	6.37	85.4	53.1	1.39	2.75	0.46	4.71	1.86	7.18	0.58	8.33	2.52	5.47	0.28	0.42
Atpadi	36.8	3.34	1.39	0.74	2.48	10	0.57	2.86	39.9	57.9	3.56	6.22	0.41	1.7	3.16	1.07	9.89	14.1	1.66	1.73	0.16	0.36
Jat	28.3	9.62	0.26	1.27	0.66	3.6	0.59	3.46	44.1	56.4	1.66	2.55	0.96	3.65	9.29	10	13.3	8.05	0.43	1.01	0.52	0.37
Kavathe- Mahankal	22.1	18	0.59	0.51	0.76	7.78	0.73	2.09	51.8	45.1	3.31	5.29	0.84	0.83	2.41	4.13	12.7	13.9	4.07	2.00	0.66	0.46

Source- Compiler by Researcher on the basis of district socio-economic abstracts (Sangli, Satara & Solapur district)

**Table: - 2, Crop Combination Of Man River Basin**

Sr. No.	Tahsil in Man Basin	Crop Combination	
		1990-91	2010-11
1	Man	Three Crops (B, F, J.)	Three Crops (B, J, P)
2	Mangalwedha	Two crops (J, B)	Ten crops (J, O, S, P, B, F & V, W, M, F, C)
3	Pandharpur	Nine crops (J, S, P, W, M, F, B, O, F & V)	Nine crops (J, S, P, W, F & V, O, M, F, B)
4	Sangola	Monoculture (J)	Ten crops (J, P, O, B, F & V, S, M, W, F, C)
5	Atpadi	Two crops (J, B)	Nine crops (J, P, F, W, B, F & V, S, M, O)
6	Jat	Three Crops (J, B, P)	Ten crops (J, P, O, B, F & V, S, M, W, F, C)
7	Kavathe-mahankal	Three crops (J, B, P)	Eight crops (J, B, P, F, W, O, F & V, S)
8	Man River Basin	Eight crops (J, B, P, F, O, S, W, F & V)	Ten crops (J, P, O, B, F & V, S, M, W, F, C)

(Latter in bracket indicates Jowar, Oil seeds, Sugarcane, Pulses, Bajara, Fruits & Vegetables, Wheat, Maize, Fodder, Cotton)



### 1. Monoculture

According to Weavers method, with in entire Man River basin Sangola tahsil observed as monoculture region in 1990-91. 85.4 per cent area of Sagola tahsil cultivated under Jowar crop but in 2010-11 agriculture year not any tahsil recorded under Monoculture region. The diversification of crop increased in 2010-11 because awareness among farmers, increased sources of water, increased use of technology in farm etc.

### 2. Two Crop Combinations

Mangalwedha and Atpadi tahsil was observed two crop combination region in 1990-91. Farmers were cultivating Jowar and Bajara in this tahsil but in 2010-11, these tahsil recorded under ten and nine crop combination.

### 3. Three Crop Combinations

Man tahsil is suitable for three crop combination region because it didn't changed in both agriculture year. The irrigation facilities in this tahsil are not well developed as compare to other tahsil in Man basin. Jat and Kavathe-mahankal tahsils were observed in tree crop combination region in 1990-91 but in 2010-11 agriculture year it observed in ten and eight crop combination region respectively.

### 4. Eight crops combination

According to Weaver method eight crop combination region wasn't recorded in 1990-91 but in 2010-11 year Kavathe-mahankaltahsil observed in eight crop combination in 2010-11. Jowar, Bajara, Pulses, Fodder, Wheat, Oil seeds, Fruit & Vegetables and sugar cane were cultivated.

### 5. Nine crops combination

Pandharpur tahsil is suitable for three nine combination region because it didn't changed in both agriculture year. Except Pandharpur additional one more tahsil namely Atpadi observed nine crop combination region in 2010-11.

### 6. Ten crops combination

In 1990-91, ten crops combination region was not recorded in the study area but in 2010-11, three tahsil namely Jat, Sangola and Mangalwedha observed in ten crop combination region.

### Conclusion

According the Weaver method entire man basin was recorded in eight crop combination region in 1990-91 while in 2010-11 it observed in ten crop combination region. This change in crop combination region happened by the construction of dam and canal for irrigation, water conservation scheme, use of modern technology for irrigation i.e. drip irrigation, sprinkler irrigation in the basin area.

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# **Gandhian Philosophy And Promotion Of Human Rights In India**

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## **Abstract**

Human rights are rights inherent to all human beings regardless of gender nationality place of residency sex, ethnicity, religion, colour on and other categorization. Thus, Human Rights are very important for any nation for smooth functioning of the governance. Many philosophers and thinkers throughout the world raised a voice for fundamental human rights and 'right to life'. Finally, on the 10<sup>th</sup> December 1948 a resolution of the General Assembly of the United Nations has been passed and entitled as Universal Declaration of Human Rights (UDHR). Hence, the day, i.e. 10<sup>th</sup> Dec. is observed as Human Right Day. Mahatma Gandhi, the father of the nation has been identified as one of the pioneers of the Human Rights in India. His work in South Africa, his theory of Satyagraha, Kheda Satyagraha, Ahmedabad Labour Strike, Non-Co-operation Movement such and many other major public activities he had led in India for the protection of Human Rights. The present paper consists of the various aspects of Gandhian perspective on human rights.

**Keywords-** Human Rights, Gandhian Philosophy, Gandhiji's Movements

Many efforts have been made to create Human Rights and finally 10<sup>th</sup> Dec. 1948, through the United Nations Declaration of Human Rights came into existence. But the day of its existence of Human Rights, the violation of human rights has been a great problem of the universe. One can easily find the reasons of violence caused the denial of the basic rights of human being i.e. 'right to life'. There are a variety of human rights including Civil rights (such as the rights to life liberty and security) Political rights (like rights in the protection of the law and equality before the law) Economic rights (including rights to work, to own property and to receive equal pay) Social rights (like rights to education and consenting marriages. Cultural rights (including the right to freely participate in their cultural community) and Collective rights (like the right to self-determination).

Most of the people in the universe want to lead peaceful life but very few people violated the rights for their selfish motives and put the world in danger. The recent example of the war between Russia and Ukraine is nothing but violation of Human Rights. The issues must be resolved by discussions and implementing Gandhian Philosophy. The leading countries should come forward to stop the violence and irreparable loss of the human being during the war. The objectives of the study are to analyse the principles of Gandhiji and how far it would be relevant in the contemporary world. The paper throws light on the major activities that Gandhiji led in India for the protection of Human Rights. They were the Champaran Satyagraha, Kheda Satyagraha, Ahmadabad Labour Strike, the non-cooperation movement and the freedom struggle.

Though, India is an agricultural country, the sector is always deprived and exploited since the British Rulers. The farmers from Champaran, Bihar were exploited by the Britishers in 19<sup>th</sup> century. The reason was the compulsory growing of indigo by the peasants. There was a system known as the '*Tinkathia* System'. According the system, the farmers were bound to grow and gave indigo, that was beneficial to European Landlords on the three twentieths of their holdings. This causes a great loss to the farmers of Champaran so they opposed the system. Bipin Chandra opines, "The story of Champaran begins in the early 19<sup>th</sup> century when European planners had involved the cultivators in agreement that forced them to cultivate indigo on 3/20<sup>th</sup> of their holdings. Towards the end of the 19<sup>th</sup> century, German synthetic dyes forced indigo out of the market and the European planters of Champaran, keen to release the cultivation from the obligation of cultivating indigo tried to turn their necessity to their advantages by securing enhancements in rent and other illegal dues as a price for the release. Resistance has surfaced in 1908 as well, but the expectations of planters continued till Rajkumar Shukla, a local man decided to follow Gandhiji all over the country to persuade him to come to Champaran to investigate the problem. Rajkumar Shukla's decision to get Gandhiji to Champaran is indicative of the image he had acquired as one who fought for the rights of the exploited and the poor" (Chandra, 2016, p. 178).

Gandhiji visited Champaran and enquired all the things regarding '*Tinkathia* System' and exploitation of the farmers. Gandhiji studied the things and found that the farmers were exploited by the

system and advised the farmers not to go court because it was no use and the farmers will be frightened to see the lengthy process. In the process of courts, the peasants will be crushed so Gandhiji told the peasants that law court were useless. Gandhiji encouraged the farmers rooting out the exploitative system. Gandhiji's presence at Champaran disrelish the planters and the government officials but Gandhiji explained that he was there at the request of the farmers and his intention was to promote peace between planters and peasants. Gandhiji, on this occasion meet thousands of peasants and knew their difficulties. The then Government of India felt confused at Gandhiji's presence at Champaran. Finally, Gandhiji succeeded in collecting testimony from thousands of farmers with the help of some assistants. Gandhiji found that grievances received from the farmers were real. Then, an Agrarian Enquiry Committee was set by the government of Bihar, Sir Edward Gait in order to investigate the local tenancy system and Gandhiji was appointed as a member. Finally, the committee recommended that the landlords refunded 25% of the cash they had extorted from the farmers. Thus, the exploitative 'Tinkathia System' and illegal exaction were abolished.

In the Kheda district, due to draught condition, there was a great failure of crops growing and facing a famine condition. So, there was a demand from the farmers to suspend of revenue for the assessment period. The British authorities instead increased 23% revenue in 1918 when a crop did not come up to one fourth of full harvest. Most of the farmers requested the officials to suspend the tax for the assessment period but the government officials rejected the appeal and insisting that the revenue should be paid. As soon as Gandhiji knew about the extra revenue, he tried to speak the government officials, "We do not demand that the government should accept what we say and yield. We ask that, if our case is proved, justice to done to us. We asked for the appointment of arbitrators, but the government turned down even that request" (Mehrotra, 1979, p. 178). Through *Gujrat Sabha*, Gandhiji sent appeals to the government and request them to think peasants' grievances sympathetically. But the government rejected and Gandhiji told the British officials, "This is not a struggle merely to escape payment of the revenue this year. It is our duty to know and to safeguard our rights. This is a struggle to compel the government to respect popular feelings and acknowledge their rights" (Gandhi, 1945, p. 534).

Gandhiji requested the peasants not pay revenues to the government for the year and the peasants Gandhiji and Patel a lot. Sardar Vallabh Patel organized a tax revolt with his colleagues and different communities of Kheda. A petition of the Kheda peasants was signed and submitted to the government but it was rejected and warned the peasants if they did not pay to the government, the lands and property would be seized by the government. The government officials sent thugs to take the property of the peasants including cattle, grain, pots etc. The peasants did not resist the illegal action but handle the situation calmly according to the philosophy of Gandhiji. They did not take revenge but the peasants and other community people donate their valuables and cash to the *Gujrat Sabha* to submit their protest against government authorities. The revolt was in a systematic way with discipline and unity. Even though, all the property is seized by the government, the farmers firmly united and support Gandhiji and Patel with patience. Other part of the Gujrati's sympathetically supported the revolt, and sheltered cattle and relatives.

On 17<sup>th</sup> April 1918, Gandhiji gave instructions to the volunteers and followers for the success of the non-violence struggle. These are-

1. The volunteers must remember that as this is a Satyagraha campaign; they must abide by truth under any circumstances.
2. In Satyagraha not a single harsh word should be uttered.
3. Rudeness must be avoided instead perfect courtesy must be observed.
4. A volunteer should be clever, frank and straightforward.
5. Whenever we get a time, we should teach village children and inculcate good health habits among villagers.
6. It is necessary to stop quarrelling among villagers.
7. Under any circumstances, we should not use any arms in Satyagraha. One should always remember that non-violence in Satyagraha is always maintained.

Through these instructions Gandhiji try to inculcate the qualities like love, truth and non-violence among the volunteers and followers. Gandhiji observed the success of Satyagraha as, "It is mere trifle that we have won on the issue of land revenue, but, as I have often told you, the important gains are fearlessness and the feeling that we are the equals of even the highest officers-in no way inferior to them. I hope this struggle will have made you permanently conscious of your strength to employ satyagraha at any time. Once the flame is kindled, it cannot be extinguished but burns ever more brightly" (Gandhi, 1965, p. 461-462).

Finally, the government ready to listen to the peasants and the agreement was signed. It was that the tax for the year in question, next year would be suspended and the rate which was increased, it was reduced and the property seized by the government would be returned. Thus, Gandhiji and Patel gave a strong confidence and determination to the peasants to identify their rights.

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## Evaluation of the Social movement in post-independence India

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### Abstract

Man has to constantly struggle for independence. Whether it is personal freedom or the freedom of the country, it cannot be achieved without struggle. Although nature has given freedom to the mind from birth, it has placed the responsibility on the mind to maintain it. Babasaheb Ambedkar is known Babasaheb's social movement is considered to be one of the most powerful movement in the world.

The emergence of social movement in the national political system after World War II seems to be aimed at influencing the social and public policy outside the political realm for the benefit of the people. The Obiso movement, the student movement, the Naxalite movement, the Muslim movement and the Adivasi movement have emerged and made a distinct impact on us. Whatever the system of government, its primary duty is to give justice to the citizens. State religion is the basis. Justice is based on equal rights. Even after India's adoption of a parliamentary democracy in which discrimination should not have a place, it seems that some of the disadvantaged sections of India do not get justice. Is done

**Objectives:** - The evaluation of the social movement in post-independence India has two main objectives in mind while writing this research article. Evaluation of social movement in India has been adopted to study the causes of emergence and to study in detail the evaluation of social movement in India.

"Secondary tools have been used for fact-finding and research has made a sincere effort to reach the objective.

The only inspiration for the modern and egalitarian progressive social movement in India is M. Phule and Dr. Babasaheb Ambedkar are the only ones. The entire untouchable society is deprived and exploited. The philosophy and movement of this ideology is a great threat to the exploitative system here. Because of that fear, their perception of the movement changes from time to time. He sees various movements emerging in India as an alternative.

**1. Revolutionary Movement** - Although all social movements call themselves anarchists, they are motivated by political motives. Revolutionary movement has always given new dimensions to human and international relations. In the 14th century, Europe's Dark Ages came to an end with the Reformation and the Enlightenment movement. New discoveries and new ideas have emerged in all genres. It is because of the truth-seeking Ambedkarites and Marxist ideologies that the movement against neo-capitalist exploitation, like the Naxalite environmentalists, the self-styled casteists and the defenders of human rights, has become strong today. As a result, the direction of politics has become transparent and accountable. If the leadership does not know where and when to lead the movement and how to nurture the workers during the struggle, the movement will fail and the existence of the movement will come to an end. And trying to find a way to fulfill your purpose Do.

**2. Workers' Movement:** - In the last fifty years, there has been an awakening in Maharashtra that workers, farmers, artisans, workers, workers, etc. The police chain has been broken. Transferred lands have been returned. Legislation has been enacted for the transferred lands of the tribals. For this, there is an organized movement which is in its infancy. Recently, the nature of the movement is changing. India is in a different situation than before.

**3. OBC Movement:** - The OBC Movement is considered to be very important in Indian politics. The issue of OBC reservation was pushed to the state level so that it would not be a big issue. He took advantage of the OBC's dissatisfaction but did not allow the important Kalelkar Commission to be the main subject of the election.

Therefore, the issue of Rathyatra, Ayodhya has been created by the then ruling party and the opposition in such an atmosphere as Dalit vs. Obosi. So even today the OBC movement has failed to make much of an impact. It has been a constant occurrence in India for an OBC leader to think of giving him a post and sidelining him from the OBC movement.

**4. Student Movement:** - Rohit Vemula's suicide case and Jawaharlal Nehru University The arrest of students on charges of treason has once again brought the student movement to the center of the national discussion world. It appears. The future of the student movement will depend on the positive and negative impact of the student movement on the students and the student movement. Since most of these institutions are private or aristocratic, the student movement does not seem to be standing still and the student movement is in turmoil all around.



**5. Naxalite Movement:** - There are many conclusions that if we study the direction of rise and development of the Naxalite movement in India, the role of the present government is to blame. Naxals are active in the country. Because the tribals still have debts. Today, the Adivasovars, who have been overwhelmed by the long history of exploitation and deprivation in the country, have fallen prey to the apathy and indifference of the government. But it has come in a negative form. In fact, the issue of Naxals is ignored and the Indian Army has to bear the consequences.

**6. Muslim Movement:** - Although the Muslim community is happy to be able to count on its fingers after India's independence, most of the Muslim community is out of the mainstream. Lack of education leads to poverty and destitution. In the name of Muslims, a wave of social organization has broken out in various parts of Maharashtra. But organizations last as long as they can count on their fingers. The issues of Muslims like reservation are burning.

Summary: - While it is true that Indian politics has been shaken by the whole social movement in India, the movement has led to a growing sense of unity among the various classes on one side and opposition on the other. At the same time, the ruling class is trying to divide the OBC movement, the Muslim movement and the Naxalite movement. Therefore, it is necessary to build this movement together.

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# A Study Of Agricultural Wages In India

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## Abstract

Indian economy is characterized as agrarian economy. Agriculture is main source of livelihood for major segment of population in India. Agricultural labour is primary source of income for rural households. Despite developments in Indian economy agricultural wages are not increased in required extent. This paper aims to study nominal and real wages in agriculture and trend in it. It also tries to study wage difference across states and gender. It is observed that agricultural wages in India are increasing but this rise is become insignificant due to inflation. In India there are different wage rates in different states. However, there is significant difference in wage rates for male and female. This difference is high in some states and also low in some states. Growth rate in wage rate in India is also dispersal across different states. Wage rate are increasing slowly in some states and stagnant in some states.

## Introduction

Indian economy is characterized as agrarian economy. In India, the primary income sources for rural households are either income generated from agriculture and allied activities or non-agricultural wages, both of which have lately dwindled. Real wage growth in both agricultural and nonagricultural sectors experienced a slump after 2014 and declined to negative territory by 2019 for certain categories. (Chatterjee & Sharma, 2021) Structural change in employment has been slow, particularly in agriculture, and its share in income has declined faster than employment has transitioned. Creating more non-farm employment opportunities and supporting literacy programmes and irrigation will help improve farm wages, and incentivizing farm mechanization will reduce the cost of cultivation for farmers and the rural poor. (Sant Kumar et al. 2020)

## Objectives

1. To study nominal and real wages in agriculture.
2. To study growth rate and trends in real wages.
3. To study state wise and gender wise wage differentials.

## Methodology

Secondary data is used for present study. Wage rates were collected from 'Agricultural Wages in India, AWI (Various reports)'. Consumer Price Index for Agricultural Labour (CPI AL) data were collected from Labour Bureau, Shimla. Directorate of Economics & Statistics (DES), Ministry of Agriculture & Farmers Welfare, is collecting data relating to agricultural wages on monthly basis, spread over the length and breadth of the country. The data on agricultural wage rate and skilled rural wage rate is collected once or twice in a month at block level from one or two representative villages and average data of those collected twice or of two villages are reported to the district. Data relate to agricultural year, i.e. July – June. One or more casual labourers and farmers are primary informants for collection of data on wage rates. Where ever the informants' numbers are high, average of data is taken in to account. The data on normal working hours (8 hours) and the prevailing wage rates in cash and kind for the reported working hours are collected gender-wise. Wages reported in kind are evaluated at local market retail prices. The wage rate data is collected for various agricultural operations like ploughing, sowing, weeding, reaping, harvesting, transplanting, winnowing, cleaning silt, digging well, embankment, carrying load etc and other rural wage rate for carpenter, blacksmith and cobbler.

The officials at block level entrusted to collect data on wage rate from primary informants are reporting data to the district Head Quarters. After scrutiny and consolidation, the authorities at district Head Quarters forward the report to their respective State Head Quarters which in turn is sent to DES so that the information is received in DES positively by the end of the second week of the succeeding month.

Real wages were calculated as-

$$\text{Wage}_{\text{real}}(t) = \frac{\text{Wage}_{\text{nominal}}(t)}{\text{CPI}(t)} \times 100$$

Compound Annual Growth Rate (CAGR) is calculated as -

$$\text{CAGR} = \frac{(V_{\text{final}})^{1/t}}{(V_{\text{begin}})} - 1$$

$V_{\text{final}}$  = final value

$V_{\text{begin}}$  = beginning value

$t$  = time in years

Average Annual Growth Rate (AAGR) is calculated as -

$$\text{AAGR} = \frac{\text{Growth Rate (y)} + \text{Growth Rate (y + 1)} + \dots + \text{Growth Rate (y + n)}}{N}$$

Growth Rate (y) = Growth rate in year 1

Growth Rate (y + 1) = Growth rate in the next year

Growth Rate (y + n) = Growth rate in the year “n”

N = Total number of periods

#### Agricultural Wages in India

Agricultural wages and family incomes of agricultural workers are very low in India. With the advent of the Green Revolution, money wage rates started increasing. However, as prices also increased considerably, the real wage rates did not increase accordingly. Currently labours are getting around Rs. 150/day under the MGNREGA in rural areas. Agricultural wages differs from state to states. Female agricultural workers are generally forced to work harder and paid less than their male counterparts. (jagranjosh.com). Average daily agricultural wage rate for field labour is given in Table 1 and Table 2 for the period agriculture year 2015-16 to 2019-20. The States of Andhra Pradesh, Jharkhand, Karnataka, Maharashtra and Telangana do not give operation-wise details as they furnish the data for the group (i.e. field labour) as a whole. All the remaining States figuring in the present publication furnish operationwise data. It is evident from Table 1 and 2 that, money wages are higher in Kerala, Haryana, Punjab, Uttarakhand and Tamil Nadu states. And low in Chhattisgar, Gujarat. Maharashtra Jharkhand, Madhya Pradesh, Uttar Pradesh, Bihar for male and females. Real wages are also showing same trend.

**Table 1: State Wise Average Daily Agricultural Wage Rate for Field Labour (Male) ( 2015-16 to 2019-20)**

Sr. No.	State	Money Wages (Male)					Real Wages Male				
		2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	295	321	331	362	381	295	310	309	325	338
2	Assam	245	275	278	288	318	245	275	267	270	300
3	Bihar	215	235	246	270	297	215	238	248	263	286
4	Chhattisgar	181	201	200	214	234	181	199	195	204	231
5	Gujarat	176	211	219	228	251	176	207	211	213	233
6	Haryana	388	390	416	440	453	388	369	388	398	417
7	Himachal Pradesh	276	278	300	322	338	276	266	281	296	324

8	Jharkhand	182	226	261	256	258	182	229	263	250	248
9	Karnataka	272	326	354	384	366	272	294	314	348	336
10	Kerala	576	582	613	673	701	576	530	540	579	631
11	Madhya Pradesh	213	230	246	249	265	213	228	240	238	262
12	Maharashtra	113	132	261	278	328	113	126	246	254	287
13	Orissa	224	239	270	280	307	224	239	258	256	285
14	Punjab	373	395	403	412	425	373	374	373	371	392
15	Rajasthan	300	314	336	357	368	300	297	321	325	336
16	Tamil Nadu	334	327	347	372	392	334	297	302	312	325
17	Telangana	284	290	333	336	393	284	280	311	302	349
18	Tripura	288	297	317	312	300	288	297	314	288	284
19	Uttar Pradesh	238	233	241	260	269	238	239	244	250	261
20	Uttarakhand	345	399	350	353	373	345	409	355	339	362
21	West Bengal	259	267	274	279	305	259	266	257	260	296
	ALL INDIA	275	294	314	330	348	275	280	292	298	315

**Source : 1) Agricultural Wages in India, DES, GOI**

2) CPI for Agricultural Labour, Labour Bureau, Shimla

**Notes :** 1) Agricultural Year i. e. July to June,

2) CPI AL yearly calculated as average of CPI AL monthly from 2017-18 to 2019-20

3) CPI AL for 2016-17 is calculated as average from January-June 2017

4) CPI AL for 2015-16 is calculated as average from July-Dec 2016

5) Real wages calculated as base year 2015-16.

**Table 2: State Wise Average Daily Agricultural Wage Rate for Field Labour (Female) (2015-16 to 2019-20)**

Sr. No.	State	Money Wages (Female)					Real Wages Female				
		2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	200	224	239	256	272	200	216	223	230	242
2	Assam	200	227	229	232	252	200	227	220	217	238
3	Bihar	203	216	227	244	264	203	219	229	238	254
4	Chhatisgar	134	142	135	153	170	134	141	132	146	168
5	Gujarat	156	187	196	203	228	156	183	189	189	212
6	Haryana	311	320	350	373	385	311	303	326	338	355
7	Himachal Pradesh	252	266	279	300	312	252	254	261	276	299
8	Jharkhand	170	202	274	230	239	170	205	276	224	230
9	Karnataka	245	280	319	357	336	245	253	283	323	309
10	Kerala	427	454	482	506	525	427	413	424	436	472
11	Madhya Pradesh	184	199	211	213	226	184	197	206	203	224
12	Maharashtra	80	90	131	209	225	80	86	124	191	197
13	Orissa	173	191	227	239	257	173	191	217	218	238

14	Rajasthan	247	261	269	302	303	247	247	257	275	276
15	Tamil Nadu	142	153	168	180	195	142	139	146	151	162
16	Telangana	184	187	216	237	276	184	180	202	213	245
17	Tripura	225	253	255	251	240	225	253	252	232	227
18	Uttar Pradesh	216	212	223	236	248	216	217	226	227	241
19	Uttarakhand	275	307	232	271	306	275	314	235	261	297
20	West Bengal	212	225	236	236	256	212	224	221	220	249
	ALL INDIA	212	230	245	261	276	212	219	228	235	250

**Source : same as Table 1**

There are significant differences in wages in Indian agriculture on the basis of gender. The Table 3 shows wages difference between male and female wages. Females are paid lower than male. This gender gap in wages also differs from states to states. Kerala and Tamil Nadu reporting highest gender wise wage inequalities. Following that Andhra Pradesh and Telangana shows higher wage differentials among male and female. Bihar, Gujrat and Himachal Pradesh reported lowest gender gap in wage rates.

**Table 3: State Wise Difference in Average Daily Agricultural Wage Rate for Field Labour ( 2015-16 to 2019-20)**

Sr. No.	State	Male-female Difference in Money Wages					Male-female Difference in Real Wages				
		2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	95	97	92	106	109	95	94	86	95	96
2	Assam	45	48	49	56	66	45	48	47	53	62
3	Bihar	12	19	19	26	33	12	19	19	25	32
4	Chhatisgar	47	59	65	61	64	47	58	63	58	63
5	Gujarat	20	24	23	25	23	20	24	22	24	21
6	Haryana	77	70	66	67	68	77	66	62	60	62
7	Himachal Pradesh	24	12	21	22	26	24	12	20	20	25
8	Jharkhand	12	24	-13	26	19	12	24	-13	26	18
9	Karnataka	27	46	35	27	30	27	41	31	25	27
10	Kerala	149	128	131	167	176	149	117	116	143	159
11	Madhya Pradesh	29	31	35	36	39	29	31	34	35	38
12	Maharashtra	33	42	130	69	103	33	40	122	63	90
13	Orissa	51	48	43	41	50	51	48	41	38	47
15	Rajasthan	53	53	67	55	65	53	50	64	50	60
16	Tamil Nadu	192	174	179	192	197	192	158	156	161	163
17	Telangana	100	103	117	99	117	100	100	109	89	104
18	Tripura	63	44	62	61	60	63	44	62	56	57
19	Uttar Pradesh	22	21	18	24	21	22	22	18	23	20
20	Uttarakhand	70	92	118	82	67	70	95	120	78	65
21	West Bengal	47	42	38	43	49	47	42	36	40	47
	ALL INDIA	63	64	69	69	72	63	61	64	63	65

**Source : calculated from Table 1 and Table 2**

**Table 4: State Wise Trends in Average Daily Agricultural Wage Rate for Field Labour ( 2015-16 to 2019-20)**

Sr. No.	State	Trends in Real Wages (Male)						Trends in Real Wages (Female)					
		2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20	AA GR	CAGR	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20	AAGR	CAGR
1	Andhra Pradesh	5.0	-0.1	5.0	4.2	3.5	2.8	8.1	3.4	2.8	5.1	4.9	3.9
2	Assam	12.3	-2.8	0.9	11.3	5.4	4.2	13.6	-3.0	-1.3	9.5	4.7	3.5
3	Bihar	10.9	3.9	6.3	8.4	7.4	5.8	8.0	4.3	4.1	6.7	5.8	4.6
4	Chhatisgar	10.2	-2.1	4.7	13.3	6.5	5.0	5.2	-6.5	10.9	15.1	6.2	4.6
5	Gujarat	17.5	2.2	0.7	9.6	7.5	5.8	17.5	3.2	0.2	11.8	8.2	6.3
6	Haryana	-4.9	5.0	2.8	4.7	1.9	1.5	-2.6	7.7	3.5	5.0	3.4	2.7
7	Himachal Pradesh	-3.7	5.7	5.4	9.3	4.2	3.2	0.9	2.8	5.6	8.3	4.4	3.5
8	Jharkhand	26.0	14.6	-5.0	-0.6	8.7	6.4	20.6	34.6	-18.7	2.4	9.7	6.2
9	Karnataka	8.2	6.7	10.7	-3.3	5.6	4.3	3.1	11.9	14.2	-4.5	6.2	4.7
10	Kerala	-8.0	1.9	7.4	8.9	2.5	1.8	-3.2	2.7	2.7	8.4	2.6	2.0
11	Madhya Pradesh	7.2	5.2	-1.0	10.3	5.4	4.2	7.3	4.3	-1.3	9.9	5.1	4.0
12	Maharashtra	11.8	0.0	3.0	13.2	7.0	20.5	7.7	43.6	54.3	3.3	27.2	19.8
13	Orissa	6.7	8.1	-1.0	11.4	6.3	4.9	10.4	13.7	0.6	9.3	8.5	6.6
14	Punjab	0.2	-0.3	-0.4	5.6	1.3	1.0	NA	NA	NA	NA	NA	NA
15	Rajasthan	-0.9	7.8	1.3	3.4	2.9	2.3	0.0	3.9	7.0	0.7	2.9	2.3
16	Tamil Nadu	-11.1	1.5	3.5	4.2	-0.5	-0.5	-2.1	5.1	3.4	7.1	3.4	2.6
17	Telangana	-1.5	11.3	-3.1	15.8	5.6	4.2	-2.0	11.9	5.4	15.2	7.6	5.9
18	Tripura	3.1	5.6	-8.1	-1.5	-0.2	-0.3	12.4	-0.3	-8.1	-2.0	0.5	0.2
19	Uttar Pradesh	0.3	2.4	2.3	4.5	2.4	1.9	0.5	4.1	0.4	6.1	2.8	2.2
20	Uttarakhand	18.4	-13.2	-4.4	6.7	1.9	1.0	14.3	-25.2	10.8	14.0	3.5	1.6
21	West Bengal	2.7	-3.5	1.2	14.2	3.6	2.7	5.7	-1.4	-0.6	13.3	4.2	3.2
	ALL INDIA	1.9	4.1	2.1	5.8	3.5	2.8	3.4	3.8	3.5	6.1	4.2	3.3

**Source : calculated from Table 1 and Table 2**

Agricultural wages in India are increasing at the rate (CAGR) of 2.8 per cent and 3.3 per cent for male and female respectively for the period from 2015-16 to 2019-20. However, average of annual growth rate for male and female are higher i.e. 3.5 and 4.2 respectively for the same period. Jharkhand , Bihar, Chhatisgar, Gujarat have shown significant rise in wages. However, Tamil Nadu Tripuran Uttar Pradesh and Utarakhand have shown no growth in agricultural wages. In this way there is dispersal growth in agricultural wages across states in India.

#### **Conclusion**

Agricultural wages in India are increasing but this rise is become insignificant due to inflation. In India there are different wage rates in different states. However, there is significant difference in wage rates for male and female. This difference is high in some states and also low in some states. Growth rate in wage rate in India is also dispersal across different states. Wage rate are increasing slowly in some states and stagnant in some states.

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# **An Study on The Effectiveness of Bicycle Utilization on Explosiveness Power of Secondary School Students**

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**Abstract:** Health, wellbeing and physical fitness are most important factors in leading a happy life. Strength and conditioning training are now an integral part in acquiring Health and physical fitness. Explosive power development is essential for getting stronger, speedy movements, loss of body fat, growth of new muscles, etc. there are number of ways to improve the explosive power of students in their teenage. Bicycle has a powerful impact on physical fitness and health of students. The purpose of this research paper was to find out the effectiveness of bicycling in enhancing explosive power of secondary school students. It as a quasi-experimental study conducted over 200 male students comprising two groups; 100 bicycle using students and 100 bicycle non using students. Statistical techniques used for this study are percentage analysis and 't' test. The study showed that there is a significant difference between bicycle user groups and bicycle non users' groups which means bicycling showed an increase in explosive power of the students.

**Keywords:** bicycle and its Impact, explosive power of students, physical fitness of teenagers.

## **Introduction**

Obesity, physical inactiveness, tiredness, physical weakness, etc are the more or less damages the lives of the learners during their teenage due to their overinfluence of mobile and technological over dependency. Most of the learners reluctant to have physical exercise due to educational stress. Being physically fit and healthy one needs to be physically active. Healthy mid and body only can support wellness of mind, body and intellect. Regular physical activity can help protect everyone from serious diseases such as obesity and physical ups and downs. Cycling is a healthy, low-impact exercise that can be enjoyed by people of all ages, from young children to older adults. It is also fun, cheap and good for the environment. Since sports in the time of school hours is limited to time and space, hence riding bicycle regularly can be considered as one of the best ways to maintain health of the teenagers during their school life. It is also one of the best ways to reduce the risk of health problems associated with a sedentary lifestyle. The cycling is very economical too for the students. Cycling to school is one of the most time-efficient ways to combine regular exercise with your everyday routine. Cyclising can even keep the learner physically fit by increasing the his/her explosive power. Cycling is a form of physical activity that electively taxes the cardiorespiratory and metabolic functions of the whole body in a wide range of intensities and thus lends itself to many potential health benefits.

Cycling is a form of physical activity that effec-tively taxes the cardiorespiratory and metabolic functions of the whole body in a wide range of intensities and thus lends itself to many potential health benefit

## **Review of literature**

There are number studies conducted on explosive power some of which are briefed below. Clutch D, Wilton M (1983). conducted a research study on the explosive power of four groups: a resistance training only group, a resistance training and depth jumping group, a volleyball playing and resistance training group, and a volleyball playing, resistance training and depth jumping group. Cronin and Hansen (2003) investigated strength and power (explosive power) as predictors of sports speed. Abu-Omar & Rutten (2008) again made a study on active commuting combinewalking and cycling. Andersen LB, (2000) had depth study on All-cause mortality associated with physical activity during leisure time, work, sports, and cycling, walking and cycling to work. Even though there are number studies are being conducted on cycling benefits and explosive power separately, there is found a research gap for the present study on effectiveness of bicycle utilisation on in the increase of explosive power among teenagers.

## **Objectives**

The objective of this quasi-research study was to study the effectiveness of bicycling in the development of explosive power among secondary school students.

## **Methodology/Design**

This was a quasi-experimental study conducted over 200 hundred 9th-grade male students (between age group of 14 to 16) in Shivamogga district, Karnataka. This quasi-experimental design



involved three measurement test 1) initial testing, 2) testing at the end of three months & 3) testing at the end of six months.

**Procedure:**

The investigator has taken 200 male students of 9<sup>th</sup> grade government schools (between the age group of 14-16) from the outskirts of Shivamogga district. This study was limited to 6 taluks of Shivamogga districts specifically Soraba, Bhadravathi, Thirthahalli, Sagara, Shikaripura and Shivamogga. Out of bicycle users of 9<sup>th</sup> grade students over the six taluks of Shivamogga districts, 100 male students were selected on the criteria of distance those who do cycling for 5 to 9 kilometer per day from to and fro home to school. The selected 200 students of 9<sup>th</sup> grade were divided into two groups consisting 100 each as 100 bicycle user groups and other 100 students belonging to bicycle non-user group. Explosive power was tested over results of vertical jump at three stages 1<sup>st</sup> stage of initial testing, second stage of testing at the end of three month and third stage of testing done at the end of 6 months. The results of tests (vertical jump) of the bicycle users and non-bicycle users compared on the basis of respective mean, standard deviation, and 't' test statistical techniques in order to find out the significance difference between pre and post-test data of the two groups on explosive power increase of secondary school male students. The quasi-experimental design adopted for the study is depicted in the table (1):

**Table-1 Quasi- Experimental Design**

Type of Groups	Stages of testing	Test
Bicycle Users/ (Experimental )	Initial Testing	
	Testing after 3 months of bicycle utilization	
	Testing after 6 months of bicycle utilization	
Bicycle Users (Controlled)	Initial Testing	
	Testing at 3 months' end	
	Testing at 6 months' end	

**Results**

**1<sup>st</sup> phase of testing at Initial stage**

**Table.2 Summary of 't' test on explosiveness between bicycle users and bicycle non users during prior to bicycle utilization situation.**

VERTICAL JUMP		Mean	N	Std. Deviation	t	Sign
During Initial Testing prior to bicycle utilization	Bicycle users	31.90	100	5.59	0.472	Not Significant at 0.01 Level
	Bicycle non-users	31.57	100	5.34		

Table 2 shows that obtained 't' value is 0.472 is not significant at 0.01 level. It means that the formulated above null hypothesis 1 is accepted i.e., "There is no significant difference in between bicycle users' group and bicycle non-users' group during initial testing prior to bicycle utilization."

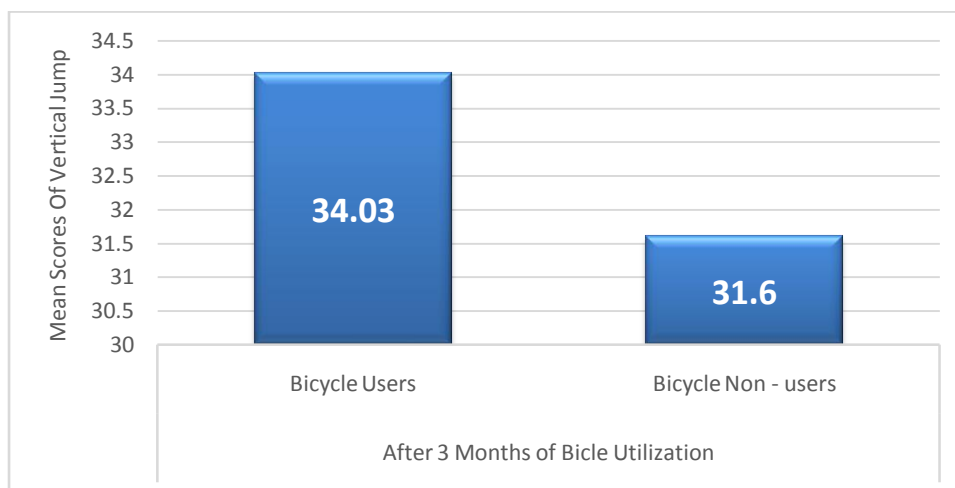
**2<sup>nd</sup> phase of testing at the end of 3<sup>rd</sup> months**

**Table 3 Summary of 't' test on explosiveness between bicycle users and bicycle non users at the end of 3 Months of bicycle utilization**

VERTICAL JUMP		Mean	N	Std. Deviation	t	Sign
(After 3 Month)	Bicycle users Group	34.03	100	4.8	3.425	Significant at 0.01

	Bicycle non-users Group	31.60	100	5.34		Level
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Table 3 above shows that calculated t value is 3.425 and it is significant 0.01 levels. It means that the above null hypothesis 2 is Rejected and formulated the alternative hypothesis i.e., “There is a significant difference in the after-bicycle utilization mean scores (After 3 Months) of Explosiveness between bicycle users and bicycle non-users.” The above results are graphically presented in the figure (1):



Above Graph (1) shows that comparison of mean scores of Explosiveness after bicycle utilization (After 3 Months) between bicycle users' group and non-bicycle users group. After bicycle utilization of 3 Months Mean Score of bicycles users' group is Higher than that of non-bicycle users' group. It can be concluded that bicycle riding effected in increasing the exclusive power in bicycle users' group of after bicycle utilization for 3 months.

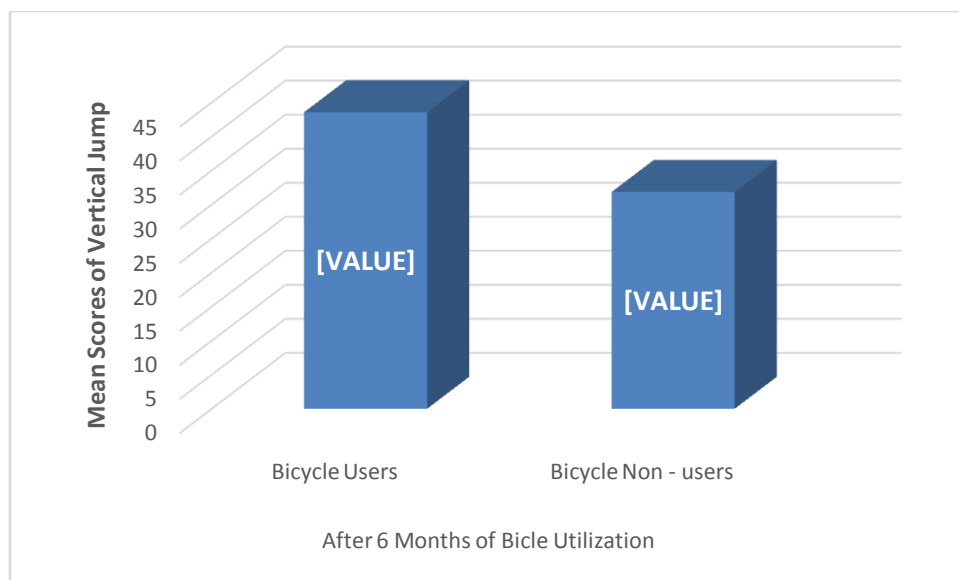
### 3<sup>rd</sup> phase of testing at the end of 6<sup>th</sup> month

**Table 4: Summary of 't' test on explosiveness between bicycle users and bicycle non users at the end of 6 months**

VERTICAL JUMP		Mean	N	Std. Deviation	t	Sign
(After 6 Month)	Bicycle users Group	43.57	100	9.53	10.794	
	Bicycle non-users Group	31.86	100	5.23		

Table 4 above shows that calculated t value is 10.794 and it is significant 0.01 levels. It means that the above null hypothesis 3 is rejected and formulated the alternative hypothesis i.e., “There is a significant difference in Explosiveness between bicycle users' group and bicycle non-users' group after bicycle utilization for six Months. The above results are graphically presented in the figure (2):

Graph (2) shows that Comparison of Mean Scores of Explosiveness after bicycle utilization of Six-months' between bicycle users' group and non-bicycle users' group



Above Graph (2) shows that comparison of mean scores after bicycle utilization of six months in Explosiveness between bicycle users' group and non-bicycle users' group. After bicycle utilization situation of six months Mean Score of bicycles users' group is higher than after bicycle utilization than mean scores of non-bicycles users' group, it can be concluded that bicycle riding effected in increasing the exclusive power in bicycle users' group after bicycle utilization of six months.

#### Discussion and Findings

The quasi-experimental study conducted on the 200 students of 9h grade from governments schools at the outskirts of Shivamogga revealed that 1) Bicycle riding effected in increasing the Explosiveness of bicycle users after bicycle utilization for three months and 2) bicycle riding effected in increasing the Explosiveness of bicycle users' group after bicycle utilization for six months. Study revealed the truth that there is a significant difference between bicycle users and bicycle non-users with regard to their explosive power. Hence, the inference which can be drawn on the basis of this study that considering the effectiveness of bicycling on the explosive power of the students and its health benefits the possibility of cycling can be promoted for the teenagers.

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## Trade Secrets – Unrecognized Aspect of Intellectual Property Rights

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### Abstract

A piece of information that is only known to company that produces or provides it is known as trade secrets. Any creation of the human mind such as inventions, literary and artistic works, designs and symbols, trade names and images get protection under the Intellectual property rights Act. Same as all of the above mentioned outcomes of human mind get protection under the intellectual property rights law (IPR), the trade secrets, i.e., confidential information specially the method of making any product or any secret data which is also an outcome of human mind is supposed to get protection under the umbrella of Intellectual Property rights law. The IPR law protects the right of the creator from being duplicated or infringed. Trade secrets in India is not given protection in India under a codified law. It is just protected under the Indian contract Act, 1872 as a confidential information. Hence, in India there is no codified law to protect the trade secrets. Therefore, the treatment given to trade secrets cases varies from Court to Court just because of the absence of a codified law for the protection of trade secrets. This research paper is a doctrinal research which aims to deal with the complication that Indian businesses suffers in absence of the codified trade secret law. Business competition plays a vital role in the market. Now a days it has become an easy process to get establish the business by merely duplicating or adopting someone else's confidential information if the rights are not protected same as other aspects of intellectual property rights.

### Introduction:

A piece of information that is only known to company that produces or provides it is known as trade secrets. Any creation of the human mind such as inventions, literary and artistic works, designs and symbols, trade names and images get protection under the Intellectual property rights Act.<sup>1</sup> Same as all of the above mentioned outcomes of human mind get protection under the intellectual property rights law (IPR), the trade secrets, i.e., confidential information specially the method of making any product or any secret data which is also an outcome of human mind is supposed to get protection under the umbrella of Intellectual Property rights law. The IPR law protects the right of the creator from being duplicated or infringed<sup>2</sup>. Trade secrets in India is not given protection in India under a codified law. It is just protected under the Indian contract Act, 1872 as a confidential information. Hence, in India there is no codified law to protect the trade secrets. Therefore, the treatment given to trade secrets cases varies from Court to Court just because of the absence of a codified law for the protection of trade secrets. This research paper is a doctrinal research which aims to deal with the complication that Indian businesses suffers in absence of the codified trade secret law. Business competition plays a vital role in the market.

Now a days it has become an easy process to get establish the business by merely duplicating or adopting someone else's confidential information if the rights are not protected same as other aspects of intellectual property rights. There are several ways to secure the confidential information in a business but still sometimes it leaks and causes a great damage to a business. Examples of trade secrets can include engineering information, processes, know how, formulas, computer programs, business strategies, proposals, day to day operation of a company, financial information, budgets, methods of calculating, information that relates to employees, etc. Hence, it covers all those information belonging to a business which contains any such information that should be kept personal and protected from getting it leaked to a third person who can take a wrongful advantage of such information. It depends upon the owner of the business which information should be kept secret and which should be kept accessible to public. Now a days it becomes very easy to copy and store such data digitally. Especially in India, in the event of a trustworthy employee leaves a job from a company, easily transfers the secret information to a prospective company which leads to a great loss to the former company. This is the most common source of leaking the confidential information in India.

### Trade secret protection in India:

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<sup>1</sup>Lin, Thomas C.W. (8 October 2013) “Executive Trade Secrets”

<sup>2</sup>World Intellectual Property Organization (WIPO) (2016) understanding industrial property.

There are certain provisions in India to protect the confidential information, a person is contractually bound to not to disclose any such information that is known to him/her in confidence. There is no statute or legislation that governs the protection of trade secrets in India. The rights which get protected in respect of trade secrets are enforced through Indian Contract Act, 1872 on the basis of principles of equity. Section 27 of the Contract Act, 1872 declares a contract to be void if it is made for restraining the trade or business of a person. It is a common practice in law that a confidentiality clause may survive the contract, subject to the nature of the information. An action for breach of confidence which in effect amounts to a breach of contractual obligation.<sup>3</sup>

In some cases, the courts have recognized information stored in the form of databases as copyrightable material. Normally any business stores its data electronically as a data base, information such as accounts, customer behavior, inventory, etc which becomes an easy mode of carrying data. Databases are protected under a copyright Act, 1957. It includes computer databases as “literary works”.

#### **International standards for protecting trade secrets:**

International standards for protecting trade secrets also known as undisclosed information were established as a part of TRIPS agreement in 1995. Article 39 of the TRIPS agreement provides that the member states shall protect undisclosed information against unauthorized use in a manner contrary to honest commercial practices which includes unfair competition, breach of confidence and breach of contract.<sup>4</sup> The undisclosed information which is not accessible in general and which is meant to keep secret must have a value and must be the subject to reasonable action to maintain its secrecy. This general principle for the protection of trade secret has been adopted by over 100 of the 159 members of the World Trade Organization.

#### **Uniform trade secrets Act (UTSA):**

Initially, protection of trade secrets was subject matter of state law, where in each State develops its own rules, definitions and fundamentals. In 1979, there was remarkable change as the Uniform Law Commission published the Uniform Trade Secret Act (UTSA) to make a uniform trade secret law all over the States. UTSA worked for many years but difficulty with interstate and international enforcement led the federal Government to come to action. Defend Trade Secret Act (DTSA) was passed by the Congress in 2016 which provided its new set of definitions.<sup>5</sup>

#### **Situation of Indian businesses in absence of a codified trade secret law:**

Patents, trademarks, copyrights and designs are obtained through application to Government agencies and defended by law suits against infringers whereas, Trade Secrets are the neglected sibling and yet may represent the largest single contribution to intangible assets. Not all information can be protected as trade secrets because there are some sort of information that might not qualify to be trade secrets even if all the proper steps are taken for the maintenance of its secrecy level. Most commonly it involves the information which is already in public domain. As discussed earlier trade secrets in India are not given protection under a codified law. Trade secrets are also the outcome of a human mind same as trade mark, copyright, designs, geographical indications and patents. Unlike all these aspects of intellectual property rights, trade secrets also being a part of it, it is not protected separately under the umbrella of Intellectual property rights Act. Intellectual property rights law is gaining importance as the awareness in India increases day by day. The creators are very much aware now a days about how to protect their rights under the shelter of IPR. For example, Small and medium scale enterprises (SMEs) indulged in manufacturing food items are not much aware that even their formulas can be stolen and easily applied by the competitor. This will lead only to unfair trade practices. The protection of trade secrets in India is very narrow as it is granted protection under Contract law which an owner of the information must have signed an agreement for its protection. It is complex method of justice, where in it becomes difficult for SMEs to raise awareness that even their rights may be protected same as other aspects of Intellectual property. Not only SMEs but even large scale enterprises have gone through the tough times so far as its trade secrets are concerned. Some famous case studies include the following:

Walmart Vs Amazon.com

Walmart had filed a suit in the United States Court against Amazon.com raising allegations against it that Amazon was attracting some of the executives and experience employees and even consultants of Walmart. The case was settled in 1999 under the terms of settlement, Walmart was reassigned with its employees and also assured that knowledge regarding any information originating to Walmart will not be

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<sup>3</sup>Weiler International Electronics (P) Ltd. v. Punita Velu Somasundaram, 2002 SCC OnLine Bom 1006.

<sup>4</sup>WTO/ intellectual property (TRIPS)- agreement text- standards

<sup>5</sup>"Uniform Trade Secrets Act with 1985 Amendments". Retrieved 2020-04-19

used. The area where the former Walmart workers were operating were given limitations on the project in Amazon.com.<sup>6</sup>

#### Coca cola case

Just few years ago, two of the Coca Cola employees tried to sell the coke recipe to rival Pepsi. While the Coca cola recipe is a famous trade secret in America. Coca cola chose to brand it a trade secret and keep the things hidden instead of patenting its recipe for its famous soft drink which means disclosing its ingredients. One of the reasons for opting for the trade secrets would be that as the recipe contained a small amount of cocaine. Despite of taking stringent measures, in 2006 three Coca Cola employees tried to sell the coke recipe to Pepsi.<sup>7</sup>

#### Listerine

The inventor licensed the secret formula to Lambert pharmaceuticals which is known as Pfizer who made royalty payments to the inventor's family for over 70 years even though the formula was disclosed later own.<sup>8</sup>

Considering the above stated consequence of trade secrets, the importance of the protection of trade secrets under a codified law can be understood. Below mentioned are some significance of unified trade secret law:

1. The trade secret is any information that possess some financial value to the enterprise and it is also known as confidential information which requires its owner to take reasonable action for its protection.
2. The protection of the same will restrict others to copy and implement such information in their business.
3. If trade secrets are protected under a codified law, it will be more particularly and precisely protected same as other aspects of IPR.
4. If trade secrets are protected under the umbrella of IPR like trademark, patents, copyrights and designs, the awareness of getting it registered and get protection may also increase as it gain popularity amongst the entrepreneurs.
5. Different cases may be given varied treatment in the absence of a uniform law. If any uniform law exists for example: any matter relating to trademark will be treated equally under the Trademarks Act irrespective of the Courts. Decisions of the Courts varies as in India trade secrets are protected under the Contracts Act and sometimes it is also treated as the subject matter of copyrights.

#### Conclusion:

Taking into account the Indian business situation, it can be concluded that unfair trade practices can be restricted if a uniform trade secret law is enacted in India. The future of SMEs will be much brighter if their undisclosed information gets protection under a properly framed law which is actually meant for the subject matter. There are many such entrepreneurs who are unaware of their rights to protect their trade secrets, as such trade secrets are of some financial value. It is only treated as breach of confidence under the Contract Act and many a times it is being confused and so treated under Copyright law in India. This may result into establishment of different definitions and so as a result judgements which may not be able to set as an ideal precedent unlike other aspects of IPR laws. There are few ways of protecting the trade secrets in absence of uniform law such as confidence building amongst employees, restricting data accessibility, educating employees and signing non-disclosure agreement with any third parties. Apart from all these techniques if trade secrets also gets registration same as trade mark, patents and copyrights under the IPR law itself than many confusions in legal terms and commercial terms may get clarity and might also come to end.

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## Employee Empowerment: A Research Review

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### Abstract: -

Empowerment of employee is a key factor for progress of any organization. Employee empowerment is a systematic process by which organization make employees capable to take right decisions and self-sufficient. Because of empowered employees, top management get good time to work for future strategies, and developmental work for the organization. Empowering is also another way to investing in organizational workforce. Training, having right mix of information, rewards, good communication and right feedback are the tools of empowerment. The present research review is related with most recent research papers which help to clarify how employee empowerment tools are effective to increase efficiency of employees.

**Key words:** - Employee Empowerment, review, work efficiency.

### Introduction

Employee empowerment is the most related subject for the organizations, who want to have sustainable development. Employee empowerment is a systematic process by which organization make employees capable to take right decisions and self-sufficient, so that top management get good time to work for future strategies, and developmental work for the organization. Empowered employees are well efficient to make right decisions, can work in team, well trained for good coordination and knowledge of work area. They can work confidently and strive for quality products and services. It resulted in to good amount of profit and customer satisfaction. Employee empowerment is the base of many outcomes like customer satisfaction, quality production, employee efficiency, employee commitment, employee work satisfaction, quality chain, healthy work environment.

**Rajendra (2020)** studied on employee empowerment status in the commercial banking. The main objective of the study is to explore the situation regarding employee empowerment in commercial banks of Kathmandu. Researcher also aimed to find the most influencing factor of employee empowerment in which bank can implement strategies to increase the level of empowerment. In this study he found that employees facing lack of career advancement opportunities. He found that banks have provision in their rule about employee skill and capacity development programs and training and development program, some employees don't have training facility. He also noticed that some training programs are not fulfilling the employee's needs and requirement for current job responsibilities. If employees don't have proper knowledge capacity and skills they cannot empower. Therefore he suggested that bank should study the need and provide proper and relevant training to the employees for proper working. Banking management should welcome ideas from employees in all sections. He also suggested to revise and reinforce the law and the policies for employee's career advancement. He found out that structural empowerment is the most important and infusing factor for employee empowerment and it is works similarly in all types of the sectors of economy.

**Jeniboy, Hazril (2020)** studied on participative decision making, employee's psychological empowerment and job performance. The main objective of this study is to find relationship between participative decision making and psychological empowerment and how it impacts on performance of engineers in the organization. Study found that, by implementing participative management in the organization employees improve their psychological empowerment and learn new working skills, obtain information, improved team work, help each other and also fulfill all conditions and rules of organization. Further they concluded that participative decision making is positively and significantly related to employee's perceived impact at the workplace. Due to it they work efficiently and resulted in to improved productivity.

**Virender (2019)** studied how employee empowerment is a tool for development of organization. The main objective of this study was to know how employee empowerment impacts on motivation and performance. He explain various components of empowerment, its advantages and disadvantages. He also mentioned that investing in workforce helps the organization in cost saving by avoiding breakage, effective use of tools and material and adopting advance technology. Empowerment helps employees to become self-reliant, they become more confident and take responsibility of their work. In a study he found that employee empowerment system help organization to make employees more self-reliant, more efficient and accountable. Organization can implement total quality management effectively. Employees become



satisfied with work culture and become more committed to the organization. Loyal and efficient employees become assets of organization because they help organization to fulfill its goals, vision and missions.

**Mohammad, Jayendra (2019)** studied on impact of employee empowerment on performance of employees. The study was conducted in Islamic banks. The main object of this study is to know the relationship of employee empowerment on employee performance in banking sector. The study focused on the current empowerment status related to problem solving, decision making, creativity, employee autonomy and employee work participation. The study found out the problems involved in empowerment work autonomy plays important role in engagement of employee. In this research it also found that the employee have work autonomy and have more options they are more committed to their profession and seems happy. As a result employees become more productive and innovative. It also develop trust among employees reduces the employee turnover. The study further explained that empowerment strategies enable employees to handle difficult decision making situations, it also plays significant role in measuring organizational progress. The study suggested that organization should support and encourage creativity to improve their performance and also suggested to provide suggestion box around the organization.

**Mahmoud, Ibrahim (2019)** studied on employee empowerment and leadership style. The main objective of this study is to know the impact of various leadership styles on empowerment of employee. The area of research was Labor and Social Development Ministry of Bahrain. The study found that there are two leadership styles, first is Demographic Leadership and second one is Transformational Leadership Style. There is a noticeable impact of leadership on workers and their empowerment. In the study it is suggested that management should provide good training to build confidence and moves towards creativity. Involve employees in decision making by participative working condition so they can feel self-esteem. The study also found out that demographic and transformational leadership styles creates positive impact on employee empowerment. The study also concluded effective leadership can increase the efficiency of employee empowerment.

**Wael, Robert and Layla (2018)** studied on how employee empowerment impacts on the organizational commitment. The objective of the study was to find relationship between employee empowerment dimensions and organizational commitment, the study aims to know the relationship among employee motivation, job autonomy job enrichment and delegation with organizational commitment. In the study it is found, that autonomy of job give freedom to arrange work schedule and allows employees to organize work suited to their personal needs. These employees get more committed to organization. The study also observed that motivation make employee self-esteem and be committed to their jobs. Having good and significant amount of salary fulfill their needs and based on Maslow's need based theory they feel physiologically safe, feel satisfied and resulted in improvement in working capacity.

### Findings

Study	Data Source	Techniques of Analysis	Findings
Rajendra(2020)	150 Respondents from various banks of Kathmandu.	Mean, Standard Deviations and Frequencies were calculated and analysed	Employees cannot be empowered until and unless they have proper knowledge, skills, and abilities. Regular training and development programs lead to increase their knowledge, skills, and abilities by this way the target goals and objectives of organization can be achieved.
Jeniboy, Hazril (2020)	Survey of 173 Managers & Engineers of Electrical and Electronic (E&E) manufacturing firms in Malaysia	SEM-PLS method to analyse the direct and indirect effect between the variables	Participative decision-making positively and significantly related to employee's perceived impact at workplace. When employees experience perceived meaning, impact and competence at the workplace, they wish to put extra effort and diligently seek for better ways to do their work, it resulted in improved productivity.
Virender (2019)	Secondary Data(Books)	Reviews	Having employee empowerment effort will help an organization by improving individual self-esteem, self-efficiency. The investment in workforce will give direct

			cost saving for organization as well as improve more of employee. This process enable employees to take control of their responsibilities, better utilization of existing resources and make wiser decisions
Mohammad , Jayendra(2019)	150 Respondents from 3 Commercial Banks(50 each) in the Kingdom of Bahrain	correlation analysis, Cronbach's Alpha, Mean and standard deviation. Carl Pearson Coefficient Correlation	The empowerment of employees support and encourage employees to be creative. Employee empowerment makes employees aggravated something that give them satisfaction and boost them to be more committed to their work. Connected to this, Organizations with strong employee decision-making skills, have a positive influence on the overall performance.
Mahmoud, Ibrahim (2019)	Survey of 377 employees in the Ministry of Labour & Social Development in the Kingdom of Bahrian.	Correlation and Cranach's Alpha.	Democratic and Transformational Leadership provides positive environment to the employee empowerment. Democratic leadership style enable more prominent effect implementing empowerment strategies as opposed to the autocratic style.
Wael, Robert and Layla (2018)	Survey of 123 employees from 9 banks in Lebanon	multiple linear regression analysis	Job Autonomy, Motivation, Training and compensation (Empowerment tools) have positive relationship with Organizational commitment of employee.

### Conclusion:

Having study on literature review, researcher noted that, for proper decision making and risk management, employee empowerment plays vital role. Employees cannot be empowered until they have sufficient knowledge and skill of work. Empowering employee means making them capable to do their work promptly. It needs proper training, proper information sharing, and participative work culture. It is also observed that Autonomy, providing proper information, and participative work culture are most focused strategies implemented by empowering organizations. Participative decision-making positively and significantly related to employee's perceived impact at workplace.it resulted in improved productivity. Only mentioning in rule book about training will not work out, identifying training needs and design the proper program can empower employees. Participative management and raising level of training helps organization to achieve desired outcome.

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## **During The Covid-19 Period Lockdown Reduced Environmental Problems**

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### **Abstract**

There is no need to do anything different for nature, just not doing too much messing with nature is like doing too much for it. But human nature is very strange e.g. Thousands of rupees were spent on cutting down trees in the name of development and replacing them with millions of rupees. Even if it satisfies you, it does not compensate for the loss of nature. The current Corona crisis has shown this. For the first time in the lockdown period, the planet Earth must have breathed a sigh of relief as humans did not interfere with nature at all.

**Key words:** COVID-19, Environment, Pollution, Healthy life, Aerosols.

### **Introduction:**

According to the information provided by the international organization 'Earth day network' on its website, 22<sup>nd</sup> April has been celebrated as 'World Earth Day' every year for over 50 years. It is believed that this day was born out of the celebration of modern environmental movement in the 1970s. Pollution caused by oil spills, factories and power projects, disposal of unprocessed toxic substances, increasing use of pesticides, destruction of forests, open spaces and wildlife are some of the environmental issues. Today, 50 years later, they are still alive. The nature of some of the questions changed and some new questions were added. Moreover, the problem of pollution has become more serious as man is rushing for development. Although there is awareness about this, we do not want to slow down the pace of development. That is to say, we have run away with the mentality of developing at the speed of wind and saving nature.

### **Rational of the Study:**

Every year in different parts of the world, different councils are thinking about how to stop this pollution. Rules are prepared. Then we see what happens. We are paying a very high cost for this pollution. According to the World Health Organization, 9 million premature deaths occurred in 2016 due to air, land and water pollution. Pollution accounts for 16 percent of all deaths worldwide, with 92 percent of deaths occurring in low- and middle-income countries. In terms of money, pollution alone contributes 5.7 trillion US dollars to the global economy. The dollar was valued at 4.8 per cent of global GDP. How to stop all this?

### **Objectives:**

1. To study the impact of Lockdown on nature
2. To study the reduced environmental issues during COVID-19

### **Methodology:**

The present study is totally based on general observations. The secondary data collected from internet, articles and reports.

### **Analysis and discussion:**

There was no any of the country that has made tremendous progress, has been able to find the answer of environmental problems. So nature itself has given it to us. Due to the COVID-19 lockdown, 'neither past nor future' pollution has been reduced. In India from March 2020 Government announced full lockdown for fight against COVID-19. All of the industries, and human activities stopped. Vehicles are not seen on the road like before. In the industrial sector, even the smokers who emit pollution 24 hours a day do not started in this period. Polluted water flowing into the river from several companies was also stopped due to the lockdown. Mountains are not being digging, work has not started in the mines. While it is true that this has stopped human economic activity, there is no denying that it has given us a sense of nature. The man who opens his eyes without the alarm of the clock but he is waking up from the sound of birds chirping even inside. Birds like flamingos, which have never been seen near human habitation, are now seen moving freely. The Sanjay Gandhi National Park in Mumbai is crowded with animals and birds.



Aerosols badly effect on human body, dragging of air quality caused for premature mortality through cancer of lungs. In April 2020 over India found very low or little aerosol concentration as compared to April 2019 it clearly indicates that the effect of COVID-19 Lock down situation. (NASA, 2020) According to European Space agency in Indian Atmosphere there was found significant reduction in Nitrogen dioxide (NO<sub>2</sub>) levels during the period of first lock down. (1<sup>st</sup> January 2020 to 24<sup>th</sup> March 2020 and March 25, 2020 to April 20, 2020) as compared to last year in same period. (ESA, 2020) More than 40 to 50 percent concentration of NO<sub>2</sub> drops across the major cities like Delhi, Mumbai, and Pune etc.

In the Tadoba-Andhari tiger project, humans and their gypsies can be seen interacting. Today, birds and animals are seen roaming freely in this forest. The circulation of leopards in human habitat has increased. Never before have so many peacocks been seen on the streets. Even shy animals have started appearing freely. The number of birds and animals on the water has increased. Not only has this, with the reduction of dust pollution, the number of patients suffering from cold, flu and fever decreased. What did we humans do for this? All this good result is to 'stay at home' without doing anything. We will soon overcome the Corona crisis and then the financial crisis, but we will have to decide what to pay for it first. Nature has given us this opportunity. If we continue to orbital attitude about nature as before, then the economic crisis will be over; but natural disasters will never stop.

#### **Conclusion:**

Today we are fighting corona, tomorrow we will have to fight some other disease. That is to say, we have to decide whether to go against nature and fight again, or to develop in harmony with nature. That is, you have to decide whether to spend a money for a healthy life or to spend a money after getting sick. If we do not know the value of clean air today, the future will be even worse.

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# **Punishment, Forgiveness and Divine Justice in Shashi Tharoor's Short story -The Temple Thief**

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## **Abstract:**

This research paper focuses on character and explores the implications for punishment if one focuses on having a character that is merciful and forgiving in disposition. He argues the tension that often exists between justice and mercy, on the other hand, is lessened by indented on the virtue of having a merciful and forgiving character. Forgiving is the key to reform. The Five Dollar Smile short storey book was an endeavor to come to terms with a number of Tharoors' immediate concerns about the incident of emotional and geographical dislocation. Smuggled and stolen, valuable temple artifacts are a rich collection in the west. When Tharoor discussed his beliefs in Hinduism and atheism, of the kind that comes with the discovery of rationality, he couldn't reconcile his belief with the irreligiousness and venality.

Keywords: Forgiveness, Restoration, Mercy, Punishment.

## **Introduction:**

According to the tradition of theology, which stretches back to a certain extent, as St. Augustine's god's mecy and justice are distinct in a number of respects, quite different characters fraits? Thus, in Paradise Lost, John Milton describes God's offend as a separation from this world.

No sooner did thy dear and only son Peceive  
thee purpos'd not to doom frail man so strictly,  
but much more to pity inclind Hee to appease thy  
Wrath, & end the strife of mercy and justice in thy  
face discern'd Regadless of the Blisswher in hee  
sat second to thee, offe'd himself

God's heart is to die for man's transgression. Between justice and mercy God obtained something for the race of humans and he is in the role of a loving father, at the mercy of the human race. He is in the role of a righteous judge. As a righteous judge, he willed that justice should prevail for the sinners' own good without any regard, but as a loving father, he desired to forgive sin and to allow his loved one to get out of the terrible punishment they deserved on account of their sin. Shashi Tharoor is a prolific author, journalist, and human rights advocate. He is a trustee of the foundation 'Chandan Tharoor Foundation' established by his family and friends. He is a member of parliament from the thirunantouanantpuram constituency in Kerala. He served previously as the United Nation's under-secretary general for communication and public information and as the minister of state for external affairs. Tharoor has written numerous books. These short story is reflect the constitute a young adult obviously highly impressionable world view, those that shape his political, social, familial and scholastically sensitivity, these stories laced with modest dose of idealism He build an atmosphere and he has sense of observation. Most of his literary creations are based on Indian themes, and they are markedly 'Indo-nostalgic.' Tharoor has been a highly regarded columnist in each of India's three best known English-language newspapers. At the age of six, Tharoor started writing. Thaoor has lectured widely on India. His most famous work, published in 1989, derived from the narrative techniques and themes of the popular epic Mahabharata. His novel 'Show Business' was adopted for the film 'Bollywood' (1994). Every book has been a best seller in India. Tharoor is the youngest person in the history of the Fletcher School to be awarded a doctorate.

His sack nearly full when he kept his hand on Shiva's statue an unmoving face, the strange stead back at him, he felt mockingly that the statue asked him "Do you really think you are going to get away with this, & mere mortal, a common thief as that can capture him"? after a confuse state of mind with gully, getting weak and snarled at himself. think that this is no way to behaved steeling his nerve, he pack the torch into pocket and come away and grunting walked back to the sack with it. The sack was not too heavy, he could easily still sling the sack over his shoulder and leave the temple and started walking away from the village and on the road and Raghav was an atheist, and ever since he could remember, religion had been in his bloodstream. Crime was an economic prerequisite, and everyone may not let one's conscience or religion guide them. Raghav is justified in using the help of God to fill his belly and purse. If God couldn't fill to the brim his belly by divine action—action by which nothing else had a context of divinity—then. It was a respectable line to steal from the exponents' of religion to sell to the connoisseurs of art, and being a temple thief was safe and much better than being a blind alley rapist or a pickpocket. A stony, graven idol of Shiva's statue was situated impassively in a corner. Raghav, despite himself, couldn't

totally stop a small shudder passing through him as he neared the idol. The moment was picked up and placed in the large gunny sack. He had left it on the floor. Raghav studied the statue of Lord Shiva and got relief, ignoring the little clench of fear that ran through his heart. as he contemplated its destiny. He wondered about an irrational movement, and the Temple had been stripped bare.

His sack was nearly full when he kept his hand on Shiva's statue. An unmoving face stared back at him. He felt mockingly that the statue was asking him, "Do you really think you are going to get away with this, mere mortal, a common thief, as that can capture him"? After a confusing state of mind with gully, getting weak and snarling at himself, Keeping his cool, he stuffed the torch into his pocket and grunted his way back to the sack with it. The sack was not too heavy. He could easily still sling the sack over his shoulder and leave the temple and start walking away from the village and on the road, but something held him back. But he can't something held him back. But he couldn't come up with anything to stop him. While leaving the temple behind, something held him back—a last forgotten remnant of all he had held precious. He couldn't leave his place of having committed his crime. Shiva was a kind of excursion, a plea for atonement that God would forgive and understand because Shiva was all-powerful, all-wise and all-knowing. .

Raghava bent, a symbol of immutability of saivite ethos, he prostrated himself before God. When he raised his head, the sound of light breathing convinced him that his companion was not an extraterrestrial apparition, but an all-too-human intruder, a Brahmin priest dressed in white, "Rise my son."The Brahmin uttered with a deep, resonant, and gentle voice, inspiring an instinctively holy awe, the message from Shiva's face had driven home to him. Evil ought to be punished. He should receive his retribution. Brahmin said, 'I see you are sorry.'" Suffering impulses lead to many things of genuine sorrow in his voice, mingling with disbelief. Raghav's eyes fell to the floor due to embarrassment. How could he account for his crime beyond words with hypocritical, facile justification? Raghav stumbled through his response. His guilt was writ large over his face. "No." I am "sorry.'

That is a cardinal sin not at the exponent of others, not just one person, but of the whole community, and there is no sin as great as the Lord in his goodness can't forgive. The Lord accepts the plea for forgiveness and enjoins a future adherence to the path of virtue. The Brahmin advised Raghav to abandon the sinful path, leave the ways of vice and dishonesty, and return to the way of righteousness. Raghav, a swathed man of God, is an example of the magnanimity of the Lord. He gets another chance to relive his life. .He had entered a whole new world of hope, and he expressed his gratitude with a stiff posture and tears. Restorative justice had been upheld.

A crime has been committed by someone with no exculpatory defense. He deserves to be punished and blamed. He could become forgivable, nevertheless, assuming the criminal were to satisfy some condition. According to the restoration theory, forgiving a criminal is justified. Judgment from the restoration theory is that fully forgiving a criminal would be warranted only if the criminal has undertaken all the punishment he deserves. .Restoration theory applies in two senses: a necessary and a contingent sense. Forgiveness is a different virtue. It is the emotional, mental, and spiritual process of ceasing to feel indignation, resentment, or anger against a human being for committing an offence, or mistake. .The process of sending forth our karma by asking for forgiveness with true feelings and granting forgiveness requires you to first subdue your own resentment, ego, and hatred toward that person in order to ask for genuine forgiveness. We generally blame When confronted with any offence, especially when confronted with more serious offences that cause terrible psychological trauma, In today's increasingly vehement and righteous public expression of blame, contemporary penal philosophy has witnessed a resurgence of the retributive tradition known as the "justice" model. On the other hand, people can and do forgive others. .Evolutionary psychologists argue that both forgiveness and vengeance are universal human adaptations.

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# Geographical Study of Land Subdivision In Rural Settlements In Kinwat Tehsil Of Nanded District.

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## Abstract

Land is a very important resource. Land has been fully utilized by human beings while achieving their development. Land use varies relative to place and time. Land use is a specific type of land use. Kinwat taluka in Nanded district is in a very remote hilly area and there is a difference in land use. Out of the total area under study, forest cover is 35.54 per cent, area under cultivation is 50.73 per cent, non-cultivable area is 1.5 per cent, fallow land is 9.29 per cent and non-cultivable area is 2.94 per cent.

**Key Words:** land application, agricultural area, forest area.

## Introduction:

About 71% of the Earth's surface is covered by water, and 29% by land. This 29% of the terrain is not uniform in nature, but mountains, plateaus and plains are found on this terrain. The study of soil is very important in human life. This is because the plains have been given more importance in human settlement. plains of water, suitable land and ease of transportation. As the region develops in modern times, the balance of land use is deteriorating. As a result, the Earth's surface area is declining. as climate change, temperature rise and pollution are also emerging. Therefore, the present dissertation has studied the land use in rural settlements in Kinwat tehsil of Nanded district.

## Study area:

Kinwat taluka is located in the north-eastern part of Nanded district in the state of Maharashtra. The axis of Kinwat taluka extends from 19°N 38' to 19°3' North axis and extends from 78°2' North to 78°12' East. Kinwat taluka is bounded on the east by Adilabad district (Telangana), west by Yavatmal district (Vidarbha), northwest by Mahur taluka, on the Badakhshine by Himayatnagar taluka. The river Panganga flows through the western boundary of Kinwat taluka. Yavatmal (Vidarbha) and Kinwat (Marathwada) border is drawn along the Panganga river.

On 26th June 1999, Kinwat taluka was reorganized and an additional new taluka, Mahur was created. According to the 2010 census, the total geographical area of Kinwat taluka is 1566.8 sq. Km. Out of this, urban area is 17.96 sq. Km. Km The rural area is 1548.84 sq. Km. That is. The total rural population of Kinwat taluka is 2,07,732. The density of rural population is 134 per square kilometer. Kinwat taluka consists, Mandvi, Kinwat, Bodhdi, Jaldhara, major circles (Revenue Board) According to 2011 census, there are 189 rural settlements in Kinwat taluka. Of these, 179 are inhabitants and 10 are barren settlements.

## Objectives:

- To study land use in rural areas.

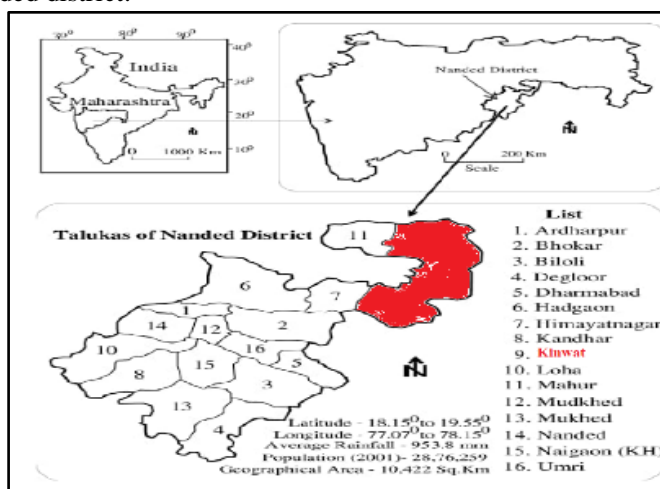
Study of land use in circle wise rural settlements in Kinwat taluka.

## Research Methods and Collection of Aadhaar Materials:

Secondary Aadhaar materials have been used to study land use in rural settlements of Kinwat taluka. Nanded District Census Report (2011) for Secondary Statistics. Nanded District Gazetteer, Agriculture Report) Tehsil Office Kinwat, Nanded District Socio-Economic Criticism Report (2010-11), Information has been collected through

## Land Application:

Agriculture Report (2010-11) According to Tehsil Office Purchase Statistics, the total geographical area of rural settlement in Kinwat taluka is 1548.84 sq. Km. Circle wise land utilization table no. For the year 2010-11. Shown in 01. Out of the total area of the taluka, forest cover is 35.54 per cent, cultivable area, is 1.5 per cent, fallow land is 9.29 per cent and non-cultivable area is 2.94 percent.





N o.	Tahashil	Total geographical area (hect.)	Total geographical area in percentage	Forest area	Forest area percentage	Area under cultivation	Area under cultivation percentage	Area not available for cultivation	Area not available for cultivation percentage	Padde d land	Padde d land in percentage	Land not suitable for cultivation	Land not suitable for cultivation percentage	Total hect. %
1.	daheti	22100	14.27	6603	29.88	12025	54.41	325	1.47	2475	11.20	672	3.04	100
2.	mandavi	30930	19.97	12868	41.59	13780	44.55	311	1.01	3267	10.56	708	2.29	100
3.	kinwat	20120	12.99	7052	35.05	10410	51.74	377	1.87	1700	8.45	581	2.89	100
4.	Bothadi	17023	10.99	5411	31.71	9867	57.16	327	1.92	110	5.35	508	2.98	100
5.	Jaldhara	18968	12.25	5150	57.15	9654	50.90	383	2.02	3082	16.25	699	3.68	100
6.	islapur	21858	14.11	7845	35.89	11340	51.88	328	1.5	1609	7.36	736	3.37	100
7.	shivani	23885	15.42	10117	42.36	11494	48.12	276	1.15	1351	5.66	647	2.71	100
	Total	154884	100	55042	35.54	78570	50.73	2327	1.5	14394	9.29	4551	2.94	100

### 1) Land under forest area:

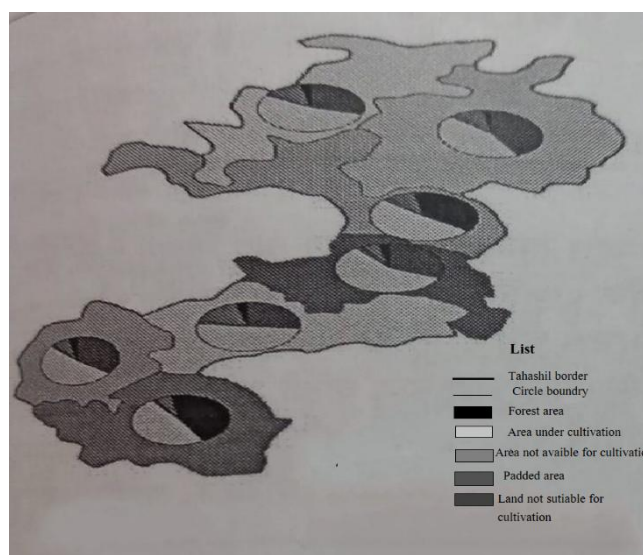
Considering the taluka wise forest area in Nanded district, the highest forest area is in Kinwat taluka. The north-eastern and south-eastern parts of Kinwat taluka are mountainous and have high forest cover. wise study of the taluka shows that the circles have moderate forest cover. 35.54% of the total geographical area of the taluka is under forest. The highest area under Chana is 42.36 per cent in Shivani circle, followed by Mandvi circle at 49.59 per cent, Islapur circle at 35.89 per cent, Kinwat circle at 35.05 per cent, Daheli circle at 29.88 per cent and lowest forest area at 27.15 per cent. Percent.

### (2) Land under cultivation:

50.73% of the total geographical area under study area is found to be cultivable. As Kinwat taluka is a very remote area in Nanded district, there is not much development of industry in this taluka. Agriculture is the main occupation in the taluka. A study of the area under cultivation in the study area circle shows that the highest area under cultivation is 57.96 per cent in Bodhdi circle, followed by 54.41 per cent in Daheli circle, 51.74 per cent in Irlapur circle, Jaldhara circle and the lowest. The area under cultivation in Mandvo circle is 44.55%.

### 3) Land not available for cultivation:

1.5% of the total geographical area of the taluka is covered by non-cultivable land. settlements, roads, canals, dams, lakes is land not available for cultivation. Study of Circle wise distribution of non-cultivable land in the study area shows that the proportion of



non-cultivable land is highest at 2.02 per cent, followed by Bodhadi Circle at 1.92 per cent, Kinwat Circle at 1.87 per cent and Islapur Circle at 1 per cent. 5 per cent, 1.47 per cent in Daheli circle, 1.15 per cent in Shivani circle and lowest available for cultivation

#### **4) Land under study:**

Out of the total geographical area under study area, 9.29 per cent area is under fallow land. Considering circle wise yellow land, the area of most fallow land is 16.25% in Jaldhara circle. It is followed by Daheli circle at 11.20 per cent, Mandyo circle at 10.56 per cent, Kinwat circle at 8.45 per cent, Islapur circle at 7.36 per cent, Shivani Sal at 5.66 per cent and Bodhdi circle at 5.35 per cent.

#### **(5) Land not suitable for cultivation:**

2.94% of the total geographical area of the tehsil taluka is covered by uncultivable land. Out of the total uncultivable area in the taluka, the highest area is 3.68 per cent of Jaldhara Circle. It is followed by Islapur Circle with 3.37 per cent, Daheli Circle with 3.04 per cent, Bodhdi Circle with 2.98 per cent, Kinwat Circle with 2.89 per cent, Shivani Circle with 2.71 per cent and the lowest Mandvo Circle with 2.29 per cent.

#### **Conclusion:**

Out of the total geographical area of Kinwat taluka, 50.73% area is under cultivation. As most of the study area is hilly, the area under forest is 35.54%. study of land use in rural settlements shows that Mandvi, Islapur and Shivani circles have more forest cover due to their hilly terrain. The Bodhadi circle has more plains, more fertile black soil and higher water availability, so the area under cultivation is higher in this circle.

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# **A Study of Challenges of Distribution Expansion of Parle FMCG Products in SMK Corporation**

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## **Abstract**

Distribution is the major function of every organization in the modern era. Amongst them, a major challenge concerns customers demanding service of quality and reliability in their energy of supply to fulfill those demands. This research paper proposes to broaden the traditional concept of multi-level distribution expansion planning to acquire more markets. Investment in Distribution Expansion plan to ensure enhanced reliability for the long term. In a distribution expansion process, Parle company uses several effective advertising strategies like digital marketing for expansion and improvement of company sales and revenue. Every business needs to maximize sales for more profit. After choosing the distribution channel, it is necessary to motivate human resources who are engaged in the channel to evaluate their performance regularly and periodically for positive impact on distribution expansion.

**Keywords:** Distribution Expansion, FMCG

## **Introduction**

Every business needs to maximize sales for more profit. Simply thinking way to get more customers for organizational products or services. Distribution expansion is helping to enhance the sales and revenue of the company. This is one of the best ways to increase more customers of the company. A distribution expansion is focused on some things- *Direct Marketing*- This can rich your product to the local, regional, or even global level using simple tools. *Internet*- E-commerce is growing all the time. Selling a product through the online website. *International*- The international market can offer a higher profit margin and business growth for the long term. In an international market, an organization can export its product to other countries in the world. *Wholesaler*- Wholesaler purchases bulk of product from the company and uses distribution and marketing channel i.e. transportation to sell product to the retailer. *Retailer* - Take advantage of the marketing and advertising of the company in form of a huge money margin given to the retailer by the manufacturing company. Retailer plays a crucial role because they are directly associated with the customer.

## **Conceptual Framework**

Every business wants to increase its sales. A distribution is defined as a path traced in the direct or indirect transfer of ownership of a product moves from a producer to end consumers. Manufacturers use a combination of distribution channels depending upon their products' nature. The intermediaries differ considering their capabilities, operational sizes, operating costs, and role in the distribution system. The functions of distribution channels are to fulfil the demand of the customer as per their expectation. The choice of distribution channel is depend on the size, nature of the product, the capacity of the supplier, and the demand of the customer. It is related to the complexity of the marketing functions. Developing suitable distribution channels for the circulation of the product 27\*7 is a long-term goal of every organization. The distribution expansion should provide adequate market share to ensure that the customer gets the products as per their need. Choosing the intermediaries (like distributors, dealers, wholesalers, agents, and retailers) is an important decision in the business. Interests of the organization trying to create goodwill in the market. After choosing the distribution channel, it is necessary to motivate human resources who are engaged in the channel to evaluate their performance regularly and periodically. Review of channel decisions is generally done by higher management level to improve and enlarge the distribution expansion system for taking over the market.

## **Company Profile**

Parle Products Private Limited is one of the famous Indian food products companies. Parle-G is a well-known biscuit brand. As per Nielsen Research Company, in 2019, Parle had a 7% share of the universal biscuit market, growing to 50% by 2020. Hence it is the largest selling biscuit brand in the global market. Parle is the unlisted private food industry founded in 1929 before 93 years ago. This company was established by the Chouhan family and its headquarter is situated at Vile Parle (East) Mumbai. More than 50500 employees are working in different plant of the company.

## **Statement of Problem**

In the area of SMK corporation retailers are less aware of Parle products for selling and they think about lower margins as compared to the local brand product. Distributors are distributing the product as

per the demand of retailers, not an extra effort for selling the Parle products. Hence this study focuses on the challenges of distribution expansion of Parle products.

### **Objectives of study**

1. To study the existing distribution system of Parle products in SMK corporation.
2. To understand the retailers' behavior in the market related to Parle products.
3. To ascertain the factors affecting the distribution channel.
4. To know the customer awareness about Parle products.
5. To analyze the competitors of Parle products.

### **Scope of Study**

In a market, the understanding researcher has to analyze what is the market and how it is run frequently and analyze the factors of the market. This paper of market researcher study behavior of retailers, customers, and distributors and analyze the company decision regarding distributor and retailer. In a study, I analyze which factors affect on company distribution process, understand the customer and retailer awareness about product and service. For improving the distribution expansion to understand the distribution chain, distribution process, and market strategy of the company. Identifying the challenges of distribution expansion company's product and analyzing the competitor of the company in the market.

### **Significance of study**

This study helps to improve the process and understand the obstacles in the distribution process of the company. The study will attempt to show the importance of adopting strategies to achieve an organizational goal. The study will help other FMCG products to understand to frame strategy for better performance.

### **Research Design**

The company has used several of strategy for increasing sales and revenue i.e. distribution strategy. Analyze the retailer data - Analyze how many retailers want to be smooth run your business and how many outlets are covered by the company in a distribution expansion. Customers have value-added products so how the company focuses on expanding the product line.

### **Sampling Technique**

People belonging to the SMK corporation area are the respondents for this study. A researcher trying to reach every ward of SMK corporation for equal weightage of data collection with using used convince sampling method. 120 respondents for this study. The period of this study is 01-10-2021 to 31-12-2021.

### **Data Collection**

Primary data - Primary information was collected by discussing with an industrial guide, dealer, salesman, sales executive, retailer, wholesaler, manager, etc. of the company.

Secondary data – Required information was collected from websites.

### **Findings of the Study**

Wholesalers and other suppliers affect the sale of product distribution of Parle company. As compared to all companies' products of the market share is good. In malls like DMart, Reliance affects the sale of authorized dealers/distributors of products. The strong distribution system of other companies is acquired more market smooth, the Profit margin is high as compare to Parle products. In discussion, SMK Corporation region distributors are not trying to work on adding new retailers. Sales executives are not cover all outlets in their daily work and route. Reliance mall, d-mart, and other wholesalers are the main sellers of biscuit products. The problem of the company is weak distribution expansion.

### **Suggestions of the Study**

Parle products have a low-profit margin hence the retailer first does not give preference as compared to other products, The companies are giving discounts and schemes for promotion to the shoppers regularly on their product for enhancing sales of products. The company needs joined new retail outlets to improve the sales performance of company products in the research area. Strengthen communication system among company management-sales executives-distributer-retailer. Make more attractive packaging of products for competition. Find out the retail outlets for distribution expansion not yet covered. It helps to the improvement company sales and revenue of the company. An adequate competitive strategy helps to increase performance. Improve the efficiency in Parle distribution process.

### **Conclusion**

The distribution process of Parle Company in the SMK Corporation region is too good. The salesman of the company they do not cover all shops in the region but of the communication barrier between salesman and retailer about more margin money. The profit margin on a product is low as compared to other leading company products, therefore, retailers do not prefer the products of the Parle

Company. After the market analysis, it is clear that retailers are seeking higher profit margins and monetary benefits on products. Distribution expansion is helping to enhance the sales and revenue of the company.

#### **Abbreviations**

FMCG

Fast Moving Consumer Goods

SMK Corporation

Sangli MirajKupwad Corporation

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# A Scope Of Alternative Dispute Resolution Methods In Matrimonial Disputes

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## Abstract

Conflict among human is inevitable part of every society and disputes are also common between people. Main causes of dispute arisen are deferent personalities, opinions, gender disparities, egos, disagreements of each other. For resolution such kind of disputes every society should have develops a legal system. Mainly the principles of natural justice with the rule of law should be applied to provide justice in civilized society. Each aggrieved person is supposed to go court for justice. The legal system bound to trying to resolve the issues with legal ideal that wherever there is a wrong must be a remedy for maintain social satisfaction. In ancient India, effective justice delivery system was in existing. The kings used to conduct their “Darbars” for deliver justice. After that in British era, the modern justice delivery system was established. But nowadays we can see the present judiciary system is not able to cover increasing burden of civil litigations. Matrimonial disputes are also kind of civil litigation. In current era, due to modernization of society and adoption of western culture marital disputes increase in very high numbers day by day. For reduce backlog of family court and to save matrimonial institute the Indian judiciary takes a liberal attitude toward Alternative disputes methods. This study mainly focused alternative solution of matrimonial issues and to examine the methods of alternative disputes resolutions.

**Key words:** Matrimonial disputes, Alternative resolution, Justice

## Introduction

*“Justice too long delayed is justice denied”*

*- Martin Luther King*

In India, Due to complex legal procedure judiciary has much backlog of court cases. Some injured person with expectation of justice come to the court but court procedure is much time consuming because multifaceted workload of judiciary. We have fast track court or time duration to disposal of civil matter but still we can't reach our goal. That's why the term “Justice delayed is Justice denied” is come true in many cases. For the solution of this situation the Indian Judiciary effectively adopts “Alternative Disputes Resolution” methods in many legal problems i.e. commercial disputes, Contractual disputes, Family Disputes etc.

ADR describe as – “the alternative Disputes Resolution can be defined as a technique of disputes resolution through the intervention of a third party whose decision is not legally binding on the parties”<sup>9</sup>As it brings the parties to the negotiating table, identifying problems, establishing facts, clarifying issues, developing the option of settlement and ultimately solving the disputes through award which is binding to the parties.<sup>10</sup>

## Objective Of The Study

1. To discuss how the current scenario of Alternative Disputes Resolution in India.
2. To discuss various form of ADR.
3. To examine the impact of Mediation and Conciliation on Marital disputes.

## Research Questions

1. How does the ADR Mechanism developed?
2. Whether the mediation and conciliation is adequate tools for solving matrimonial disputes outside of court?

## Methodology

The researcher would be adopted doctrinal research methodology. Researcher has analyze the various court judgments and some research work of scholars, and other resources like books, journals, and web resources have been used to carry out the research.

## Historical Development Of ADR In India

From the vedic period, the alternative justice method existing in India. In Hindu society, institution and beliefs developed slowly but surely and definite form was given to them. There is evidence that many significant beliefs and doctrines of our days are well established in the ancient Indian through.<sup>11</sup>During Mauryan dynasty, there were two kinds of court. One is civil court and another is criminal court. The civil

<sup>9</sup>Alternative Dispute Resolution, S.R.Myneni, Asian Law House 3<sup>rd</sup> edition. P.n.13

<sup>10</sup> Ibid p.n.14

<sup>11</sup> Alternative Dispute Resolution System(ADR), Dr. AnupamKurlwal, Central Law Publication. P.no.60

court known as “Dharmastheya” and criminal court known as “Kantakashodhna”. And during this time period every city had a police station to assist courts. Then in Gupta era, the disputes were supposed to be solved in local level like village court. In case the dispute was not solved the local level then it comes before special council. And during these eras there are some specified bodies come in practice like-

1. Kula (assembly of family members)
2. Srenis (Corporation of the persons which engaged in same profession)
3. Gana (local or area Assembly)
4. Panchayat

The arbitral bodies, known as *Panchayats*, dealt with variety of disputes, such as disputes of contractual, matrimonial and even of a criminal nature. The disputants would ordinarily accept the decision of the *panchayat* and hence a settlement arrived consequent to conciliation by the *panchayat* would be as binding as the decision that was on clear legal obligations<sup>12</sup>.

#### *ADR Process before independence*

ADR picked up leap in the India, with the establish of the East India Company. The British government gave statutory form to the law of arbitration by circulating regulations in the three presidency towns in India i.e. Calcutta, Bombay and Madras. Bengal Resolution Act, 1772 and Bengal Regulation Act, 1781 provided arbitral provision to the parties to submit the dispute to the arbitrator, appointed after mutual agreement and award of arbitrator shall be binding on both the parties. These remained in force till the Civil Procedure Code 1859 is passed. And it extended in 1862 to the three Presidency towns. After enacted Civil Procedure Code section 89 is give fully encourage to ADR procedure.

#### *Post independent period*

The root of alternative dispute resolution is found in Indian constitution. Article 14 and article 21 of the Indian Constitution are deal with the equality before law and right to life and liberty which is include right to speedy trial too. In directive principles of state, the state has obligation of state to promote equal justice and free legal aid to all the citizen of India. Article 39-A<sup>13</sup> stated – “ the procedure of the legal system which promotes justice, on the basis of equal opportunity and shall, in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or any other disabilities.”<sup>14</sup>

#### **Modes Of ADR Practicing In India**

ADR can be broadly classified into two categories: court based resolution options i.e. Mediation, Conciliation and community based dispute resolution mechanism like Lok-Adalat which is very popular nowadays. The following are the modes of ADR practiced in India:

1. Arbitration
2. Mediation
3. Conciliation
4. Negotiation

##### **1.Arbitration**

Arbitration is most often rapid resolution compared to litigation. Arbitration has a formal procedure and substantive rules to follow. The process consists of a defined simple procedure where disputants argue their case before an arbitrator. Arbitration is a flexible and confidential adjudication process. The process end with the settlement which known as award. And an award can be appealable against. Arbitration can be voluntary or contractual.

##### **2.Mediation**

Mediation is a part of conflict management of the Alternative Dispute Resolution method under Section 89 of the Code of Civil Procedure Code. The emerging concept of mediation centers is rising rapidly.<sup>15</sup> Settlement through mediation means that process which done by the mediator who appointed by parties themselves or by the court, it is chooses according to nature of case. The dispute resolve between

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<sup>12</sup>ADR in India: Legislations and Practices, By S.ChaitanyaShashank, Kaushalya T. Madhavan, KIIT School Of Law, KIIT University

<sup>13</sup> The directive principle was inserted by 42<sup>nd</sup> amendment act 1976

<sup>14</sup> Constitution of India, DrD.K.Basu, Asian Law Publication.

<sup>15</sup> Available at <https://lawtimesjournal.in/judiciary-promoting-adr/> visited 26/12/2020, 4:35pm

the parties to the suit by the application of the provision of the mediation rules 2003. The process of mediation is facilitating discussion between aggrieved parties directly or indirectly by communicating with each other through mediator.

### 3. Conciliation

Conciliation is less formal from arbitration. The process of conciliation does not require an presence of any prior agreement between the parties. Any party can request the other party to appoint a conciliator. Normally, there will be one conciliator but the parties have freedom to agree that there should be two or three conciliators. The conciliator and parties keep confidential all matters relating to conciliation proceedings. He should take positive action to help the parties reconcile their interests and concerns and try to find an acceptable compromise.<sup>16</sup>

### 4. Negotiation

Negotiation-communication for the purpose of influence is the pre-eminent mode of dispute resolution. In Compared to processes of using mutual third parties service, it has the advantage of consenting the parties themselves to control the process and get the solution of disputed matters. Essentials of Negotiation are:

1. Communication process;
2. Resolves conflicts;
3. Voluntary exercise;
4. Non-binding process.<sup>17</sup>

### ADR: Effective Resolution Method In Matrimonial Disputes

We can see the main types of alternative disputes resolution is Arbitration, mediation, conciliation, negotiation exist in India. But before few years ago on the basis of justice V.R.krishnaIyer and Justice B.N.Bhagwati's committees' report the indian judiciary launched one more form of ADR under Legal Service Authority act 1986 which is known as Lok-Adalat.<sup>18</sup> Normally in India, arbitration procedure is not in practice in matrimonial disputes. Matrimonial disputes mainly solve through mediation and conciliation. Through the ADR Method both the parties have mentally satisfied, because mostly there is always win-win situation due to collaboration it is possible. In collaboration either "you win, I win" situation or another is "compromise" where "both win some or both lose some".<sup>19</sup>

In the current scenario, a number of cases of matrimonial disputes are coming onward. The numbers of petitions involving marital disputes are increasing a judicial burden of the court. ADR provides for a legal structure for defining issues involving private parties. Matrimonial litigation is extremely burden to the civil courts. The Indian society has various forms of marriage as well as religious beliefs. Each religion has their own customary laws regarding family matter. Therefore the whole procedure is very complex in itself. Mediation procedure is a facilitate that helps the parties to reach for a settlement in dispute. In this process, parties get more flexible and get friendly environment unlike courts, which are less friendly in nature, it is free from multifaceted procedures, easy to understand and, therefore, parties cooperate with each other pleasantly. Mediation assists as very supportive dispute mechanism in the case where, divorce are due to cruelty, unsound mind, some communicable or dangerous diseases etc. in cases like these, such matter can be communicated and admitted easily and effectively because their acknowledgments will not go outside the room.<sup>20</sup>

We know that mediation is voluntary process; where parties can jointly resort to litigation of civil or criminal nature. And this option more preferred by people because-

1. It promotes the interest of the entire family
2. Reduces economic and emotional cost.

The family court Act 1986, section 9 also promotes the settlement outside court. And every magistrate has to try to settle matrimonial disputes through alternative disputes resolution mechanism.

In the case of *Gaurav Nagpal vs Sumedha Nagpal*<sup>21</sup> the Supreme Court observed: '*Efforts should be to bring about conciliation to bridge the communication gap which lead to such undesirable proceedings. People rushing to courts for breaking up of marriages should come as a last resort, and unless it has unpredictable result, courts should try to bring about conciliation*' In other case *K. Srinivas Rao vs D.A.*

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<sup>16</sup> Supra note 1 p.no. 43

<sup>17</sup> Supra note 4

<sup>18</sup> Supra note 3 p.no. 64

<sup>19</sup> Supra note 1 p.no.23

<sup>20</sup> Available at <https://blog.ipleaders.in/mediation-important-divorce-cases/> visited 25/4/2020, 10:44am

<sup>21</sup> AIR 2009 SC 557



**Deepa**<sup>22</sup> the apex court said that pre-litigation mediation should be encouraged. In words of the court ‘*If all mediation centres set up pre-litigation desks/clinics by giving sufficient publicity and matrimonial disputes are taken up for pre-litigation settlement, many families will be saved of hardship if, at least, some of them are to be settled.*’. *Matrimonial disputes particularly those relating to divorce, custody of children, maintenance, etc. are preeminently fit for mediation.*’

When Police complaints filed for maintenance, divorce or any other matrimonial disputes are to be held with sensitivity, perception and patience. The handling of the matrimonial disputes in the form of offence under Section 498 A of the Indian Penal Code, 1860 have essentially to be handled in a different way. The accused are not guilty of a criminal offence and are not within the ambit of typically definition of a criminal. It is the job of the investigating officer to see through frivolous complaints.<sup>23</sup>

In the case of **Jagraj Vs Bir Pal Kaur**<sup>24</sup> it was held by the Supreme Court that the aim of the parliament behind ratifying section 23 of HMA was to preserve the sanctity of marriage. Therefore, every step towards the reconciliation of parties has to be carried out by the courts. The main difference between the police, the judge and the mediator is that, the police is trained to investigate or frame a charge, a judge is to pay his attention on what is right or wrong but a mediator/ counselor is to focus on rebuilding and remain non-judgmental all through.

Mediation and Conciliation process:

No fix bunch of rules exists to regulate mediation unlike arbitration or conciliation. There are two initiative method in practice regarding refers to mediation.

#### **1. Refer by the parties**

#### **2. Refers by the court (civil procedure code 1908, section 89)**

Under Hindu Marriage Act 1955, Section 23 and Special Marriage Act are provides mandatory reconciliation procedure for parties. Section 23 (2) HMA states that grant or relief before proceeding under it, there shall be a responsibility of the court in the first instance, in every case to make every effort to bring about reconciliation between parties where relief is sought on most of the fault grounds for divorce specified in Section 13.<sup>25</sup>

In the case of **M/S. Afcons Infra. Ltd. & Anr vs M/S Cherian Varkey Construction**<sup>26</sup>, the Supreme Court has said that while denoting to Section 89 by the Court, the court has the preference to determine for any of the five methods. However, the practical application of the rule says that ‘*after the pleadings are complete and after seeking admission/denials wherever required, and before framing issues, the court will have recourse to section 89 of the Code.*’ Court will consider and acknowledge the nature of the dispute and refer to the parties to five options available and according to the first choice of the parties refer the party to that mode.

#### **Conclusion**

*“Discourage trial; encourage your neighbors to compromise whenever you can. Point out to them how the normal winner is often a loser in fees, expense, cost and time”* -Abraham Lincoln

The Alternative Disputes Resolution is needs to be carried forward with greater speed. This will significantly reduce the backlog of the courts and providing speedy justice at the step of door, without extensive cost being involved. With the initiation of the alternate dispute resolution, that is new path for the people to settle their disputes. The concept of LokAdalat quickly has acquired good popularity among the public and this has really given rise to a new force to ADR and there is no doubt it will reduce the pendency of court. There is an urgent need for justice dispensation through ADR mechanisms. Matrimonial dispute mainly deal with emotions, sentiments and other mental factors. Therefore, the court procedure is not fit for all means. The Indian judiciary should have Setting up of Mediation and conciliation centers in all districts of each state. These Mediation and conciliation centers would function with an efficient team of mediators or conciliator who are selected from the local community itself.

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<sup>22</sup> (2003) 5 SCC 226

<sup>23</sup> Supra note 9

<sup>24</sup> Appeal (civil) 711 of 2007

<sup>25</sup> Hindu Law, B.M.Gandhi, eastern book company. P.n. 260

<sup>26</sup> Arbitration Petition (L.) NO.752 OF 2013

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# **A Study on Destructive Favouritism and Related Deviated Practices In The Schools Affecting Quality Education**

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## **Abstract:**

This study aims at exploring and examining the act of favouritism in the classroom and its effects on the quality of education. This study tried to identify and study assessment related deviated practices that existing in 21<sup>st</sup> century classrooms as damaging a healthy education system. The results of the study showed that there existed 58.80 % of deviated practices with regard to act of favouritism in secondary school education. This paper also tried to compare favouritism related deviated practices among types of schools. The results of the data revealed that the teachers favoured the students on the basis of gender, race, area, similar political ideology and family/blood relation. The study could identify different processes in the school where the act of favouritism is most probable to occur. Statistical technique 'Analysis of variance conducted on the collected-data from secondary schools' students proved that the highest percent of favouritism related deviated practices analysis existed in private unaided schools.

**Keywords:** favouritism and Education, Teaching and favoritism, Discrimination and learner

## **Introduction**

The act of favouritism itself is not a negative act, but it becomes negative when it is based on irrationality, emotions, personal interest, individual attachment, material preference, etc. Favouritism is the act of treating others in different manner. The destructive side of favouritism includes unequal treatment, giving preference, discrimination, avoiding, etc. The act of favouritism which is not based on their abilities and proficiencies at school but giving preference due to some personal interest even when it is undeserved becomes destructive, (Hussain, T., Rafiq, N., & Malik, M. 2019). Existence of favouritism is dangerous in any organization because it affects others' performance. It damages the performance of the learners by developing a feel of injustice among the learners, because undeserving ones take advantage. Sometime favouritism becomes destructive when the act is biased and based on the certain biological, physical, economical and sociological criteria. The favouritism becomes more destructive when it leads to damage the lives of others. Even the learners who receive the favour of the teachers get spoiled their future lives. In short act of favouritism can never create a democratic atmosphere in the classrooms.

Favouritism is an unrefined human tendency which is not at all fair in the process of teaching-learning. But favouritism with its destructive form has become a part of most educational institutions. Since teachers are involved in moulding physically, intellectually, psychologically and socially healthy citizens for the society, the act of favouritism is not at all just for them. Favouritism by teachers can be described as the act of giving preference to one group of learners over others regardless of all having the right of same privileges. Teachers may prefer one student to another due to personal contacts and interests (Brantlinger, E., 1985). A teacher who acts under the clutches of favouritism as if he/she does teach for one student. Favouritism is a situation where a teacher unknowingly allows herself/himself to spent responsibility time for a few learners. Showing favouritism to one of the students may have a bad effect on other students because they may lose their respect and start doubting the teacher's competence in handling a class in a democratic way. When favouritism paves the way for the act of discrimination, it can destruct the life of a learner for ever as untrustworthy, less confident, revengeful, etc. Most people do not take favouritism as a serious problem, but when it comes to the teaching-learning process (Nadler & Schulman, 2006), it actually can destroy relationships, initiative, performance, confidence, handwork and trust of learners. Hence the act of favouritism in the schools is the most dangerous condition affecting the lives of the future generation and quality education.

## **Need of the study**

Every individual learner is unique asset (G. Baker, 2019 & J. K., Dange, 2016) and capable enough to contribute to family, the society, nation and even to humanity. No child is born as anti-social being, unequal, less confident, revengeful, etc. but if one turns to be so, the society is accountable for this and the role of education system is extremely questionable in this regard (Ali, A., Khan, D. M., & Hussain, M. (2018)). Since every individual is unique and talented, there is a great need to identify and develop their social bonding and uniqueness for the wellbeing of the society, (J. K. Dange, 2017). But, no one can expect a healthy generation from any unhealthy/ deviated system. A destructive favouritism is most

damaging situation in the life of a learner where he/she is not able to bring out of his/her best. A situation If the formator/teacher itself gets deviated, there can expect frightening endanger of the malformation future citizens without content knowledge, unskilled, unmotivated, illtreated, discouraged, revengeful, with negative thinking, anti-social, disinterested, disrespectful, unequal, psychologically unhealthy, unconfident, depending, etc. Hence for the formation of a healthy generation, a sound education system with a democratic environment is vital. Since showing favouritism is basic human tendency and its impact on the learners who lose their life due to unhealthy favouritism is a chronic and intolerable disadvantage in the formation of healthy citizens and nation development, the study on favouritism related deviated practices is the need of the time.

### Objectives of the study

The objectives of the research study were:

1. To study the favouritism related deviated practices in secondary school education system.
2. To study the types of favouritism in secondary school education system.
3. To identify the important area/process in the school where favouritism occurs the most.
4. To compare favouritism related deviated practices in government, private aided and private unaided schools.

### Methodology

Survey method of research was adopted for the study.

### Population and sample

The population for the present study consists of all secondary school students in Karnataka. 400 students were being selected from four education divisions of Karnataka: 1) Bangalore, 2) Mysore, 3) Gulbarga & 4) Belgaum through stratified random sampling method.

### Tools used for the study

Self-prepared Questionnaire consisting 24 items was used for the collection of the data. Among them 13 are positive items and 11 are negative items.

### Statistical technique

To interpret the raw data, analyses were done using percentage Analysis, Percentile, Mean, Standard Deviation and Anova

### Data analysis & results

#### Objective 1. To study the favouritism related deviated practices in secondary school education system

Percentage analysis was performed to measure the favouritism related deviated practices in secondary schools. The results are shown in the table (1) & (2) and diagram (1):

<b>Total Percentage of favouritism deviated Practices in Secondary School</b>	<b>58.80 %</b>
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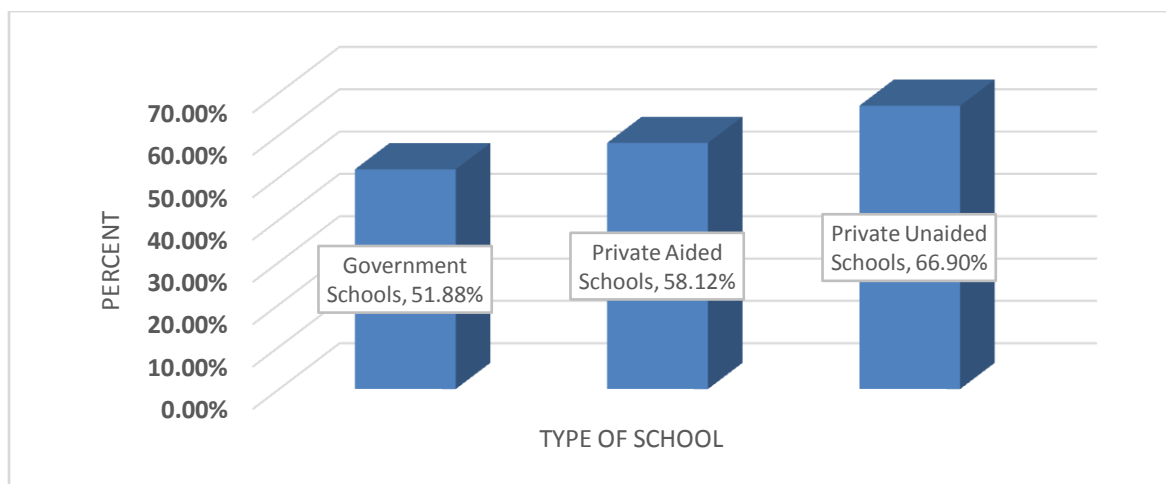
**Table (1): favouritism related deviated practices in secondary Schools**

As per percentage analysis made on the data collected from secondary school students table (1) reveals the fact that there existed 58.80 % of favouritism related deviated-practices in secondary schools.

Type school	Percent (%)
Government Schools	51.88 %
Private Aided Schools	58.12 %
Private Unaided Schools	66.90%

**Table (2): Favouritism related deviated practices among types of schools**

Table (2) presents the existence of deviated practices 51.88% in Government Schools, 58.12% in Private Aided Schools and 66.90% in Private Unaided Schools as the result of percentage analysis inferred from the data provided by secondary school students of different types of school. The above results are graphically presented in the diagram (1):



**Diagram (1): Favouritism related deviated practices among types of schools**

**Objective 2.** To study the types of favouritism in secondary school education system

A Statistical technique called 'Percentage analysis' was performed to identify and measure different type of favouritism related deviated practices in secondary schools. The results are shown in the table (3):

Type of favouritism	Percent (%)
Caste Based favouritism	48.75 %
Gender Based favouritism	63.25 %
Relation/Closeness Based favouritism	66.5 %
Talent Based favouritism	80.75 %
Financial status Based favouritism	41 %
Parents Job Based favouritism	56.25 %
Parents' Education based favouritism	55.25 %
Fairness, & Smartness Based favouritism	61 %

**Table (3): Favouritism related deviated practices among types of schools**

On the basis of data collected from the secondary school students table (3) presents the result derived through percentage analysis that there existed 8 types of favouritism in the secondary schools based on caste (48.75%), gender (63.25%), relation (66.5%), Talent(80.75%), parents' job (56.25%), Parents' Education (55.25%) & fairness (61%).

**Objective3: to identify the important area/process in the school where favouritism occurs the most.**

A Statistical technique called 'Percentage analysis' was performed to identify and measure different processes of the school system where act of favouritism occurs the most. The results are shown in the table (4):

Type of process where favouritism reflects	Percent (%)
In providing opportunities	56.75 %
In the process of Teaching	61 %
While maintaining Discipline	63.75 %
In the process of Assessment	75.25 %
With regard to Considerations and excuses	50.75 %
In the process of Admission and Fee payment	43 %

**Table (4): Favouritism related deviated practices in different types of school process**

Table (4): Favouritism related deviated practices among types of schools. On the basis of data collected from the secondary school students table (4) presents the result derived through percentage analysis that favouritism existed different process of school system where act offavouritism occurs while:

1) providing opportunities, 2) teaching, 3) maintaining discipline, 4) doing assessment, 5) giving considerations & giving admission and fee payment.

**Objective 4. to compare favouritism related deviated practices in government, private Aided and Private Unaided Schools.**

A Statistical technique called ‘ANOVA’ was performed to compare the favouritism related deviated practices among Government, Private Aided & Private Unaided Schools. The results are shown in the table (5):

ANOVA (Descriptive) Favouritism Related Deviated Practices				
Types of School	Mean	Std. Deviation	F-Value	P-Value
Government School	7.2628	2.89630	14.565	3.09
Private Aided School	8.1373	3.73116		
Private Unaided School	9.3662	3.65630		
Total	8.2325	3.51202		

**Table (5): Comparison of Deviated practices among types of schools with regard to favouritism**

The table (5) reveals the result of One-way analysis of variance for the data collected through the deviated practices questionnaire: there was a significant difference in the mean score degree of importance in varying the existence of favouritism related deviated practices among secondary school students from Government secondary schools ( $M=7.26$ ,  $SD=2.9$ ), Private aided secondary schools ( $M=8.14$ ,  $SD=3.73$ ) & Private unaided secondary schools ( $M=9.37$ ,  $SD=3.66$ ) where  $F=14.565$ ,  $P<0.05$ .

**Findings:**

1. It is proved the existence of 58.80 % of favouritism related deviated practices in the secondary schools.
2. The existence of assessment related deviated Practices is found as 51.87 % in government schools, 58.12 % in Private schools and 66.90 % are reported in Private unaided schools.
3. There existed a significant difference in the mean score of different types of the school.
4. Among the type of school, data showed that the highest percentage of favouritism existed in the private unaided school.
5. Favouritism is most visible in the process of assessment compared to other school related processes.

**Conclusion**

The research proved the existence of favouritism related deviated practices in secondary schools rooted in caste, gender, talent of the students, parents’ job and education, fairness, etc. Presence of those deviated practices were a chronic and intolerable disadvantage for the advancement of the education system as well as for the formation of healthy citizens.

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## Tehsil wise Rural Density of Sc Population in South Konkan of Maharashtra

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### Abstract:

The concept of 'density' is shows the ratio between the number of people and the area of the region they live in. In other words, the relationship between people and land is usually expressed as a simple arithmetic ratio of that, which divides the total population by the total area. Population density is totally related to the number of peoples and the area occupied by them. The concept of density of population is very most relevant and its useful tool and measurement in the analysis of the diversity of that distribution. Therefore attempt is made here to analyse spatial-temporal pattern of density of SC population in South Konkan.

**Key words:** Variation of density SC population.

### Introduction:

In 21<sup>st</sup> century India has a very chequered demographic history in all things. The population growth rate was increased in more than history. Such a high mortality, food facilities, medical facilities, industrial development per capita income these are the main things to progress the population growth rate. The population growth is an important factor in demographic study. Indian settlements are mostly concentrated in rural areas. These rural population density is depends upon the ratio of total rural population and total rural area. These are depend on varies cultural, economic and natural factors. The human resources and the density are depend upon each other.

The relative proportion of population, the rural density and actual numbers of SC population are the main important in the study of socio-economic characters of the study region.

### Study Region:

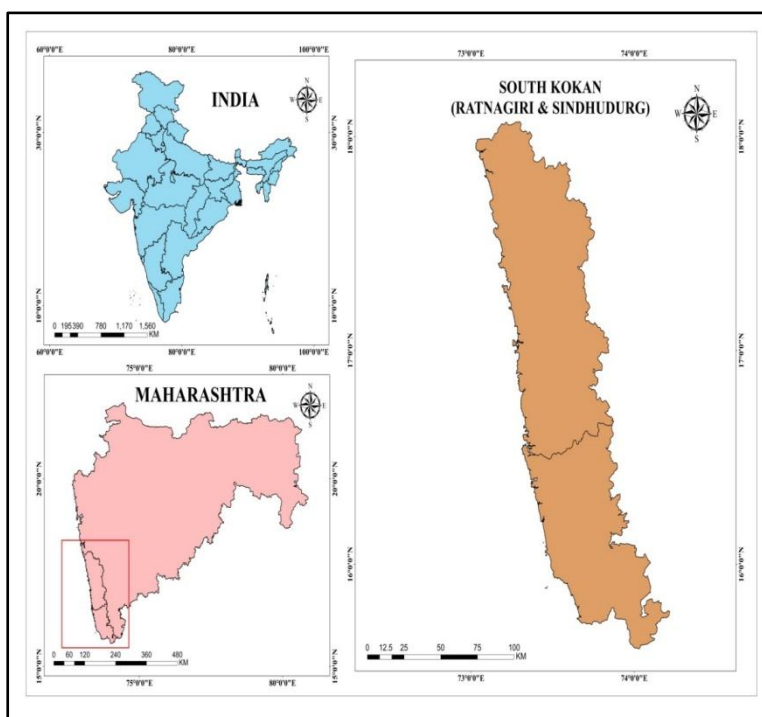
It is situated in between the Western Ghats and the Arabian Sea and lies between north latitudes 16°30' and 18°04' and east longitude 73°20' and 73°52' and falls in parts of Survey of India degree sheets 47 F, 47 G and 47 H. The district has a geographical area of 8326 sq. km. out of which about 59 sq.km. Is covered by forest, whereas cultivable area is 5224 sq. km. and net sown area is 2501 sq. km.

The district forms part of coastal basin. Savitri, Vasisthi, Shastri, Ratnagiri, Jaitapur and Wagothan are the main rivers flowing through the district. The district headquarters is located at Ratnagiri town. For administrative convenience, the district is divided in 9 talukas viz., Mandangad, Khed, Dapoli, Guhagar, Chiplun, Sangameshwar, Ratnagiri, Lanja and Rajapur.

Sindhudurg district is the southernmost district of the state, is located on the west coast of India. It spreads between 15o 37' and 16o 40' north latitudes and between 73o 19' and 74 o 13' east longitudes. The district is surrounded by Kolhapur district in the east, Ratnagiri district in the north, Arabian Sea towards the west and Karnataka and Goa States to the south. On the west, Arabian Sea gives the district a seaboard of about 121 kilometres.

### Objectives:

1. To examine the rural density of the scheduled caste population in study area.



2 To analyze and compare the density of rural scheduled caste population.

#### **Data Collection and Methodology:**

The present research paper is entirely based on the secondary data. Hence the related data has been collected from the district census handbook of Ratnagiri and Sindhudurg district 1991-2022. Collected rough data are processed.

#### **To calculate decadal density of SC population following formula is employed**

To calculate the density of population formula will be used.

1. Arithmetic population Density=Total population/Total area in sq.km.
2. Rural Density= Total rural population/Total rural area.
3. Urban Density= Total urban population/Total urban area.
4. Physiological density=Total population/Gross cropped area.

#### **Tehsilwise Rural Density Of Sc Population (1981-2011)**

According to Table No. 1 and Fig. No. 1 deals the rural density pattern of SC population in the study region. There is very changing pattern of population density. They are grouped in to three groups.

##### **1. High Rural Density Of Sc Population(10 < Persons Per Sq. Km.)**

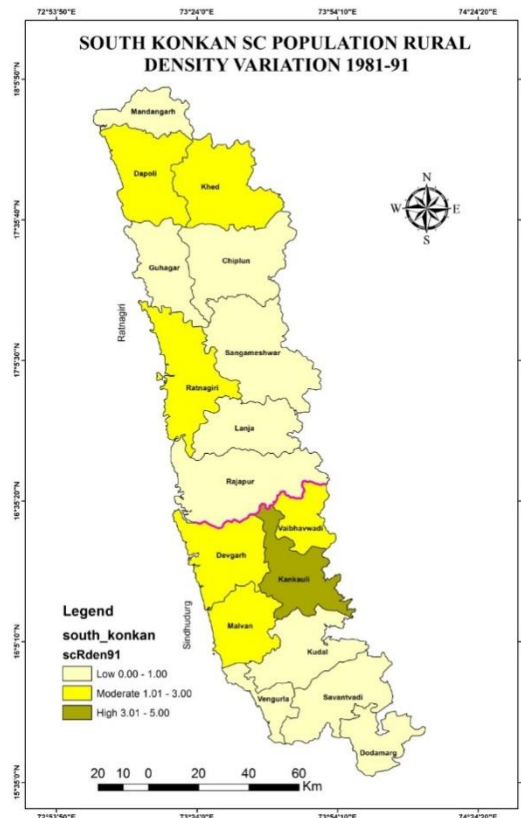
According to the Table No. 1 notify the highest density of SC rural population in Ratnagiri and Kankavali tehsils they are recorded 12 persons per sq. km. in 2011 respectively. In trend of SC population density of rural area as highly increasing in compare to 2001. Ratnagiri tehsil was highly increasing with 10 persons per sq. km. in 2011. In that data the density of Malvan tehsil was notify 10 persons of SC population per sq. km. They are noticed high rural density of SC population. Vengurla and Kudal are also indicate the high density area, they are notify 11 persons per sq. km. respectively. In that tehsils the living things are mostly available of river water, varies companies, Rice agriculture, and development of irrigation. That's why peoples are migrate their.

**Table No. 1tehsilwise Rural Density Of Sc Population (1981-2011)**

Sr. No.	District	Tehsils	Persons per sq km				Variation in density		
			Year				Year		
			1981	1991	2001	2011	1981-1991	1991-2001	2001-2011
01	Ratnagiri	Ratnagiri	01	03	02	12	02	-1	10
02		Mandangad	02	02	02	07	00	00	05
03		Dapoli	02	05	04	04	03	-1	00
04		Khed	02	04	03	09	02	-1	06
05		Chiplun	03	04	04	08	01	00	04
06		Guhagar	01	02	03	04	01	01	01
07		Sangmeshwar	01	02	02	05	01	00	03
08		Lanja	01	02	02	09	01	00	07
09		Rajapur	01	01	01	04	00	00	03
10	Sindhudurg	Devgad	02	04	03	09	02	-1	06
11		Vaibhavwadi	03	05	04	09	02	-1	05
12		Kankavali	05	10	08	12	05	-2	04
13		Malwan	07	10	08	10	03	-2	02
14		Vengurla	10	11	11	11	01	00	00
15		Kudal	09	10	09	11	01	-1	02
16		Sawantwadi	10	11	08	08	01	-3	00
17		Dodamarg	-	-	06	06	-	-	00

**Source:** Census of India, District Census Handbook of Ratnagiri and Sindhudurg Districts(1981-2011)





## 2. Moderate Rural Density Of Sc Population(06-09pop.Per Sq.Km.)

Table No. 1 are notify the moderate level of SC rural density in study region. In that Khed, Lanja, Devgad, and Vaibhavwadi are notify 09 persons of SC population in per sq. km. Then Chiplun and Sawantwadi was recorded 08 persons per sq. km. Mandangarh was 07 persons and Dodamarg was 06 persons in per sq.km. Of SC population in study area.

As compare the SC population in to the total population the moderate population density of rural SC population is covered in that eight tehsils. In that tehsils the record of SC rural density was increasing from 01 to 06 persons per sq. km. compare in to 2001 to 2011 data of SC population.

## 3. Low Rural Density Of Sc Population(Persons > 05 Per Sq. Km.)

Indicate the Table No. 1 was low level of rural density of SC population in study area from below 05 persons. In that the Sangmeshwar was recorded 05 persons per sq. km., Guhagar, Dapoli and Rajapur was notify 04 persons in per sq.km. They are recorded low density in study region. In the observation the Dapoli, Vengurla, Dodamarg and Sawantwadi was constant level recorded in 2001 and in 2011 population data. They are not increasing the density of an area.

The data of the above 16 Tehsil wise rural density of Total population the results show that in the coming years it shows increase in the Total population. Because in the 2011 the Total population of all Tehsils shows decreasing level of the Total population. As the variation can be due to different reasons as demand can varies from person to person. And to fulfil those demand, the population can vary from that study region.

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# Geographical Study Of Demographic Characteristics Of Dange Tribal In-Migrants In Kolhapur City (Maharashtra)

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## Abstract

Demography is the science which deals with the human populations. Migration is an important component of population change. The reasons and purposes of migration are changing in the course of time. Dange life in the Western Ghat region has been controlled mainly by the physical environment. Their mode of life has also been associated with the many problems. The investigator has tried to discuss and examine the demographic characteristics of Dange in-migrants.

The study is based on primary data, generated through intensive field surveys in the city. The relevant data has been collected for the three different periods taking into consideration the in-migration of Danges in the city i.e. before 1975, 1975-1995, 1995-2015. It is found from the study of in-migration of Danges shows that the first migration of Danges to Kolhapur took place in the regime Chh. Shahu Maharaja of Kolhapur *Sansthan*. An assessment of the characteristics of migration shows that the migration of Danges is the part of the strategy for survival. The migration of Danges to Kolhapur city is also a permanent migration and not a seasonal.

**Keywords:** Demography, Migration, Dange, Regime, Characteristics, Survival.

## Introduction

Migration is known as the movement of people from one permanent residence to another permanent or temporary residence for a large period of time. Migration is an important component of population change. The reasons and purposes of migration are changing in the course of time. Dange, a pastoral (nomadic) tribe, is in-habited in geographically contiguous area of Western Ghats. It is one of the 23 sub-groups of Dhanger community in Maharashtra. Dange life in the Western Ghat region has been controlled mainly by the physical environment (Ajagekar, 2013). During the last 60 years Danges in their original habitat have been facing a scarcity of forest resources as their main source of livelihood which has posed serious problems of their survival. Moreover, Dange society in the past was isolated, self-reliant and autonomous body with very limited needs. Therefore, the Danges have been migrating towards the cities and the agriculturally reach areas in Maharashtra. In the same way they are migrating to Kolhapur city.

A study nature of in-migration of Danges shows that the first migration of Danges to Kolhapur took place in the regime Chh. Shahu Maharaja of Kolhapur *Sansthan*. Relatively, a sizeable migration started from 1960 and it accelerated from 2000. In the first phase of migration Chh. Shahu Maharaja presented a land to Danges at Kadamwadi. This was the first Dange colony in Kolhapur. In the latter period the migrated Danges purchased a small piece of land in the peripheral areas of the city and settled their. In this way, at present there are 33 locations where Danges have been settled. The investigator has tried to locate these localities of Dange migrants and to study the demographic characteristics of Dange in-migrants has also been attempted.

## Study Area

- The study area, undertaken for the present study, is Kolhapur city, a district head-quarter. (Figure-1)
- There are 33 locations (Figure-2 (A)) where the Danges have been concentrated in the city. The total population of in-migrant Danges in the city is approximately 8280, distributed among 1066 households.

## Objective

The main objective of the present research work is to analyze the geographical study of demographic characteristics of Dange tribal in-migrants in Kolhapur city of south Maharashtra.

## Database and Methodology

Since, no secondary data, pertaining to Danges at the place of origin and destination are available; the present research work is mainly based on primary data which is generated through intensive field surveys. Out of 33 Dange in-migrant locations (1066 families) in the city, 25 have been selected randomly for sampling. (Figure-2 (B)) The relevant data has been collected for the three different periods taking into consideration the in-migration of Danges in the city i.e. before 1975, 1975-1995, 1995-2015. Out of the total in-migrated families (1066), 320 families have been selected randomly for different periods of their migration.

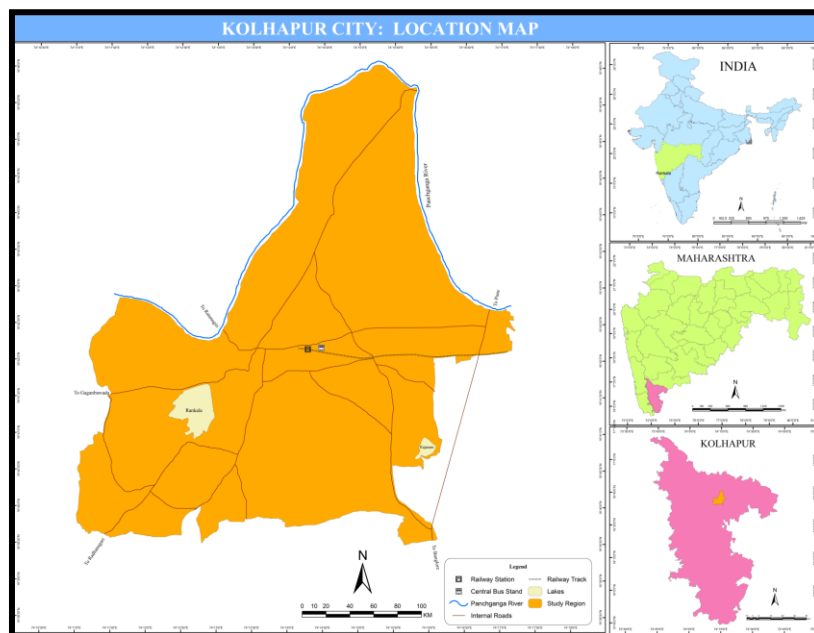


Figure 1

## Discussion

### Demographic Characteristics Of Dange In-Migrants

The distribution of the settlements or colonies of in-migrant Danges in the city; in this part a review of demographic characteristics has been attempted. ‘Demography is the science which deals with the human populations and is a fundamental approach to the understanding of human society’ (Singh, 1995). In this study the gender-wise population, age-structure and sex ratio of in-migrant Danges has been analyzed briefly.

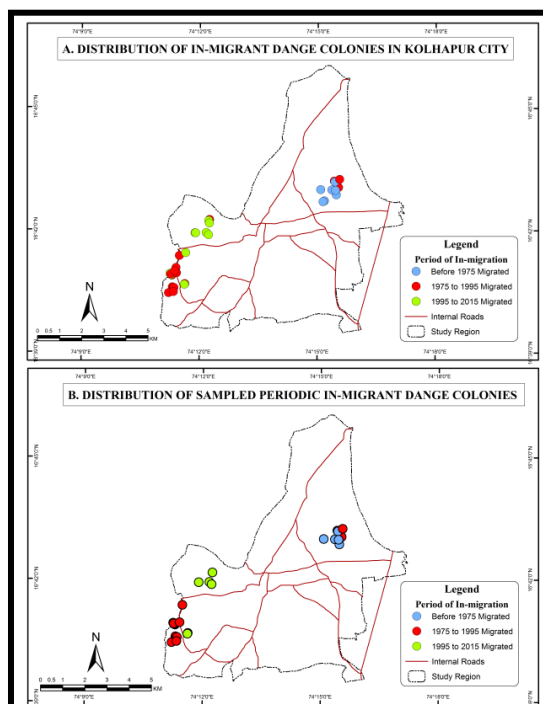


Figure 2

### A. Gender-wise Population

Sex structure of the in-migrant Danges shows variations in the male and female population. The gender-wise population is shown in the table 1.

**Table 1: Distribution of Gender-wise Sampled Dange In-Migrant Population**

Period of Migration	Population		
	Male	Female	Total
<b>Before 1975</b>	229 (51.69)*	214 (48.30)	<b>443</b> <b>(25.99)</b>
<b>1975-1995</b>	279 (51.00)	268 (48.99)	<b>547</b> <b>(32.10)</b>
<b>1995-2015</b>	359 (50.28)	355 (49.71)	<b>714</b> <b>(41.90)</b>
<b>Total</b>	<b>867</b> <b>(50.88)</b>	<b>837</b> <b>(49.11)</b>	<b>1704</b> <b>(100)</b>

Source: Fieldwork, 2017

\* Figures in bracket indicates percentage to total population

Table 1 reveals that out of the total sampled population 50.88 percent are males and 49.11 percent are females. It indicates that there is very little gap in the sex structure. Since, the migration is neither male selective nor female selective but family selective. There is no much gap between the populations of two sexes. The table further shows the sex structure of Danges in different migration periods indicating no sizeable difference in the population of two sexes.

#### B. Age Structure

The age structure of the population is the basic concept in demographic and social studies. It is an index of the potential strength of manpower and the possible future growth trend of the population in any region. The study of age composition proves to be very fruitful because almost every aspect of human behaviour, physical capability, mental maturity and attitudes, objective characteristics vary with the age attained (Banerjee and Bhatia, 1988). The sampled Dange population is grouped into 5 categories of age groups and the male-female and total age-wise population in each group has been calculated (Table 2).

**Table 2: Age Structure of Sampled In-Migrant Danges**

Period of Migration	Age Groups and Population					
	< 15	15-30	30-45	45-60	> 60	Total
<b>Before 1975</b>	72 (21.95)*	132 (26.24)	119 (29.38)	69 (24.73)	51 (26.98)	443
<b>1975-1995</b>	121 (36.89)	163 (32.40)	122 (30.12)	89 (31.89)	52 (27.51)	547
<b>1995-2015</b>	135 (41.15)	208 (41.35)	164 (40.49)	121 (43.36)	86 (45.50)	714
<b>Total</b>	328 (19.24)	503 (29.51)	405 (23.76)	279 (16.37)	189 (11.09)	1704

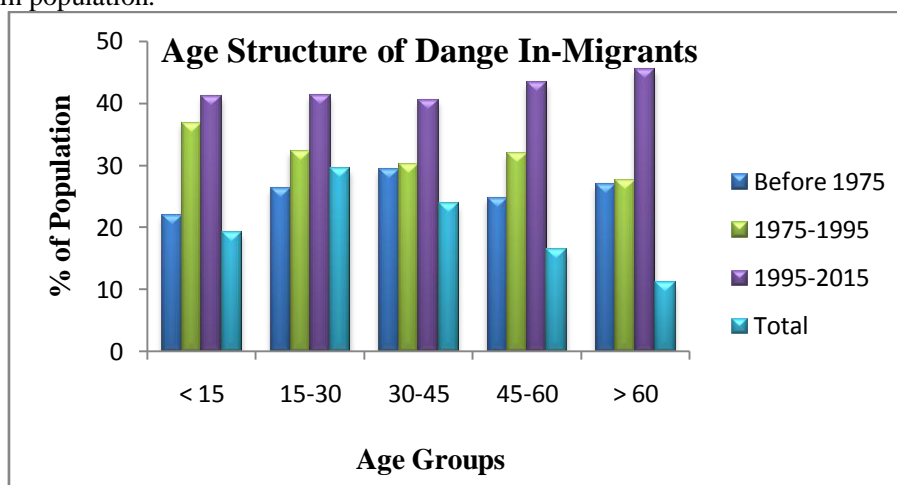
Source: Fieldwork, 2017

\* Figures in bracket indicate percentage to the total population (vertically)

Table 2 indicates that the proportion of the young population (15-30 years) of in-migrants is 29.51 percent which is higher than that of the progressive age groups. It is an indication of high birth rate, high child dependency and higher years constitutes substantially second large portion (23.76 %) which is also reproductive and provides the big size of the labour force. It is also evident from the table that the population below 15 years ranks 3<sup>rd</sup> (19.24 %) and 4<sup>th</sup> (16.37 %) position is acquired by the age group (45-60). The less proportion (11.09) is found in age group of (> 60 years).

The above table further shows that in all age groups the population in the first phase of migration is less than the other two phases of migration. The Danges who have migrated recently, show high

proportion of population. Due to the traditional society the birth rate is still higher among Danges who have in-migrated recently and relatively developed Dange society, in-migrated in the first phase, records less population in (< 15 years) age group. In other age groups in different migration periods there is no much difference in population.



**Figure 3**

### C. Sex Composition

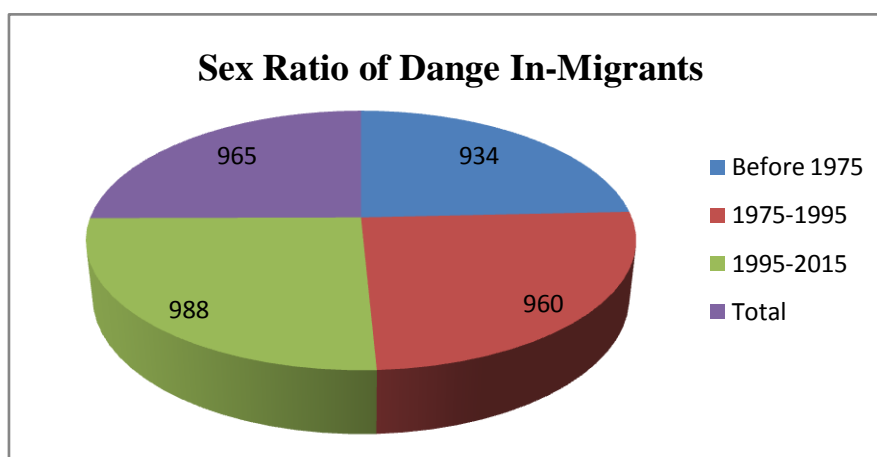
The sex composition is another basic aspect of population studies. It is an important indicator of fertility trends, family structure and marriage patterns (Sabat and Dash, 1976) and it has 'different biological, social and cultural functions and roles' (Singh, 1995). Sex ratio is the most commonly used to measure in the analysis of sex structure. The sex ratio is calculated with the 'number of females for per 1000 males'. The sex ratio of the in-migrant Danges is shown in the table 3.

The sex ratio of the Danges is 965 which are higher than the sex ratio of Kolhapur district (957) and Kolhapur city (959). According to Ajagekar's study (2013) of Danges in the Western Ghats of Kolhapur district the sex ratio is higher among Danges. Their traditional socio-cultural rules protect the females among Danges. As per their marriage rules the girl parent gets bride prize for such parents.

**Table 3: Sex Ratio of Sampled Dange In-migrant Population**

Period of Migration	Population		Sex Ratio
	Male	Female	
<b>Before 1975</b>	229	214	<b>934</b>
<b>1975-1995</b>	279	268	<b>960</b>
<b>1995-2015</b>	359	355	<b>988</b>
<b>Total</b>	<b>867</b>	<b>837</b>	<b>965</b>

Source: Fieldwork, 2017



**Figure 4**

It is to note that the sex ratio for the in-migrants migrated in the earlier phase 'before 1975' is less (934) than the other two phases of migration. In the second phase of migration the sex ratio is 960 and in the third phase it is 988. It should be noted that the sex ratio is higher in the traditional societies who are migrated recently. On the other hand, relatively developed Dange community in-migrated earlier in the city show low sex ratio.

#### **Conclusion:**

An assessment of the characteristics of migration shows that the migration of Danges is the part of the strategy for survival and therefore, is not selective with references to age, sex or education but it is family selective. When migration takes place with the family as a unit of migration, it tends to become permanent. The migration of Danges to Kolhapur city is also a permanent migration and not a seasonal.

The data of sex composition shows that there is very little difference between males (50.88 %) and females (49.11 %). The sex ratio is in favour of males (965) but is not as low as the district average (957) and the city (959). The analysis of age-structure of population reveals that large proportion of adult population (53.27 %) is reproductive and provides big size of labhour force. Similarly, 30.33 percent population is dependent population. The Danges migrated recently being traditional, show high proportion of population in all age groups than the earlier phase of migration.

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## Water Estimation of the Indapur Tahsil

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### Abstract

A water estimate commonly provides the info of quantity and place of it. Water estimate studies consider the volumes of water within the various reservoirs of the hydrologic cycle and the flow paths from recharge to discharge. The reservoirs of surface and underground water are about 1542.695 MCM; Out of this only 601.38 MCM water is required for use. Water estimate are developed by measuring or estimating the inputs and outputs of a hydrologic system. Inputs are the processes that add water to the system; these include precipitation and inflow from surface water and groundwater. Outputs are the processes that remove water from the system; these include evapotranspiration, the various uses of water by humans, and outflow from surface water and groundwater. General hydrological equation to compute water balance and runoff has been estimated. The average surface water village wise runoff of the study area is estimated. There is great deal of variations in terms of volume of runoff by different villages. The entire tahsil is drought prone and faces the problem of water scarcity throughout the year. Observing these outcomes in the present context, this paper calculates the water budget of the Indapur tahsil. The outcomes of these studies are briefly presented in this paper. It has been observed that the water resources are not uniformly available in the study area.

**Key words:** Precipitation, evapotranspiration, runoff, surface water, groundwater water balance, water estimation.

### Introduction

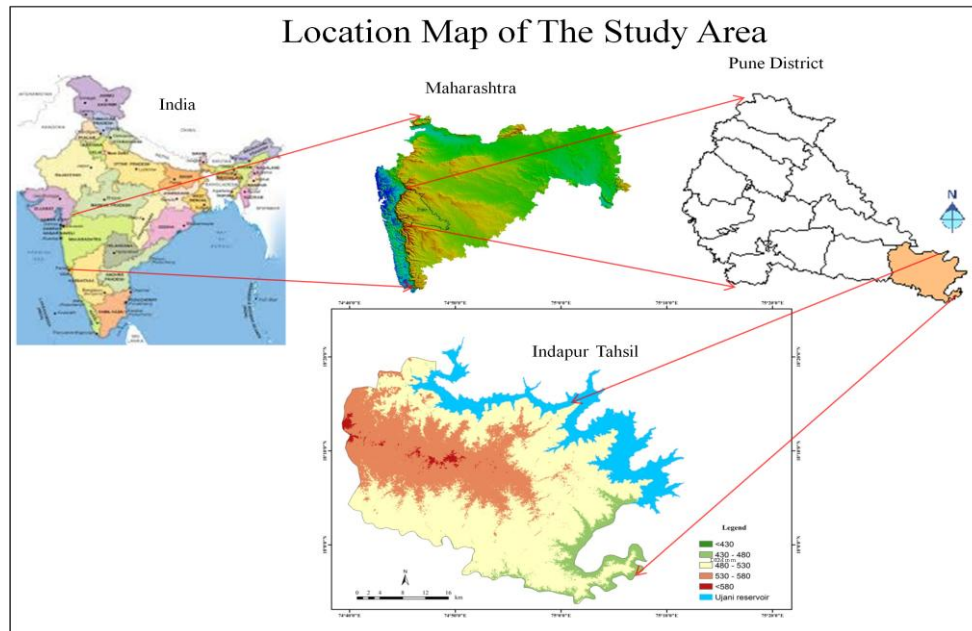
A water estimate is a basic tool that can be used to evaluate the occurrence and movement of water through the natural environment. Water estimate provide a foundation for evaluating its use in relationship to other important influencing conditions such as other ecological systems and features, as well as social and economic components – how much water is being used by agriculture, industry and residents etc. The water estimate process can encompass various levels of assessment which start simple and grow more complex if there are concerns about how much water is available at any level. Water estimate commonly provides the info of quantity and place of it. Water estimate studies consider the volumes of water within the various reservoirs of the hydrologic cycle and the flow paths from recharge to discharge. Water budgets need to consider this information on a variety of spatial and temporal scales (Hazel Breton 2010). The maximum water holding capacity of soils, rainfall and potential evapotranspiration are the basic controlling elements of water balance. The distribution of these elements decides droughts or water surplus condition. Therefore rainfall, potential evapotranspiration, aridity, humidity and soil moisture are become primary controlling factors of agriculture (Saikia 1994). In the present study water balance technique is used to estimate the availability of rainwater resource in the study area. The nature and distribution of rainfall of the study area discussed earlier indicates that about 90 percent rainfall takes place during the short period of four months from June to September. There is a great variation in the number of rainy days.

### Objectives

1. To identify inputs and outputs of a hydrologic system
2. To identify place and quantity of water.
3. To calculate the runoff of the study area.
4. To make favourable suggestions to low runoff and sufficient water available.

### Study area

Indapur tahsil is one of the tahsils in the Pune district consisting of 142 villages along with one urban centre in the study area. There are eight revenue circles in the tahsil. The area extends from 17° 53' 42" to 18° 19' 58" North latitudes and 74° 39' 16" to 75° 09' 39" East longitudes (**Fig. 1**). The area is drained by the river Bhima on north and east both sides. Nira River flows south of Indapur tahsil. Total geographical area of the tahsil is 1575.38km<sup>2</sup> (Census 2011), out of which Nira river catchment area compress about 586.8 km<sup>2</sup> and Bhima river catchment covers an area of 902.43km<sup>2</sup>. Nira River joins the Bhima River at famous tourist place i.e. Narsinhapur village after travelling a course of 209 Kms from origin. The slope of region is towards east. There are three soil types, namely, coarse shallow, medium black and deep black soils occupying 30, 40 and 30 percent respectively.



**Fig. 1** Location map

#### Database and methodology

For the present research work secondary data source are used. This work is to develop digital database at large scale using spatial and attribute data. The spatial data comprise of all the thematic and topographic maps and the attribute or non-spatial data is created mainly water details utilities information etc. All the supported data is collected from survey of India, Maharashtra State Gazetteer Pune District, Maharashtra Governments department of irrigation, department of agriculture, department of water conservation. General hydrological equation to compute Water balance used is  $P = Q + E + \Delta S$ . The Dickens, Inglis and Nawab Ali Jung Bahadur formula was used to estimate the runoff. These data base converted to Microsoft access format to suit to the link up for processing through Arc View 9.3, Surfer version 10, Global Mapper version 11.

#### Present water Inputs and Outputs of the study area

Water budgets are developed by measuring or estimating the inputs and outputs of a hydrologic system. Inputs are the processes that add water to the system; these include precipitation and inflow from surface water and groundwater. Outputs are the processes that remove water from the system; these include evapotranspiration, the various uses of water by humans, and outflow from surface water and groundwater. It is also observed that the critical examination of ground water recharge potential of the study area reveals that infiltration is negligible and hence not considered in the present computation of water budget. The components of a water budget are illustrated in **Table no. 1**. Many inputs and outputs can be measured directly or estimated using various techniques.

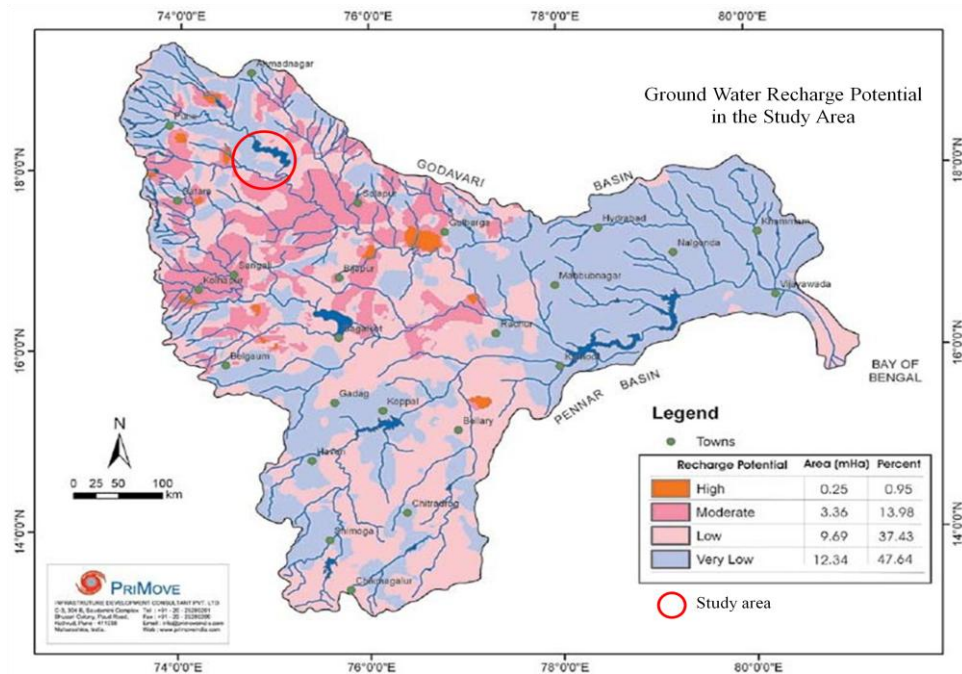
**Table no. 1** The components of a water budget

Sr. No.	Inputs	Water in MCM	Outputs	Water in MCM
1	Rainfall	1052.468	Runoff	327.716
2	Canal and Reservoir	214.587	Actual evapotranspiration	771.212
3	Recharging of groundwater	275.64	Infiltration	*
	Total	1542.695		1098.918

**Source:** Tahsil office and agriculture office Indapur, Irrigation offices, Baramati and Daund, GSDA office, Pune, 2018.

\* Being too low ground water recharge potential Infiltration has not been considered in the present component. Ref. **Fig. 2**.





Source: National rain fed area authority planning commission New Delhi 2011

Fig. 2.

### Water budget estimation using hydrological equation

General hydrological equation to compute Water balance used is

$$P = Q + E + \Delta S$$

Where,

$P$  is precipitation,

$Q$  is runoff,

$E$  is evapotranspiration and  $\Delta S$  is the change in storage in soil or the bedrock.

### Inputs

#### 1. Rainfall

One of the fact that need to be emphasized here, is that the mean annual rainfall of the eight stations in the study area is above 362 mm for all of the stations receive more or less same rainfall throughout the year. The lowest rainfall in the study area, during the last 15 years period of time, the minimum value was around 128.12 mm in the year 2003 and maximum value was 817.99 mm in the year 2009 with this rainfall the volume of rainfall that is received is 188.06 MCM and 1200.73 MCM, respectively.

#### 2. Canal and reservoir

The Nira left canal and Mutha (Khadakwasala) canal runs through the study area, hence the higher level of contribution to the irrigation. On the basis of the hydraulic data total 93.963 MCM water available from these two canals this is ultimately recharge the groundwater by canal through seepage and increase the level of groundwater. Dam and reservoirs may largely regulate the hydrological regime of a catchment since they temporarily store surface water and hence, reduce storm water runoff downstream of structure. In terms of water budget, overall surface runoff may be significantly reduced due to evaporative losses from the reservoir and abstraction of stored water. Irrigation tank, percolation tank, K. T. Weir etc. near the Ujani dam are the water resources for the area.

#### 3. Recharging of ground water

In the study area the total rechargeable fresh groundwater is computed as 275.64 MCM and the net ground water availability is to the tune of 261.86 MCM. The present gross groundwater draft for all purposes is 221.15MCM. The Stage of groundwater development for the study area, as whole, is 84.45%. This indicates that on an average 84.45% of yearly replenishable groundwater is being used in the study area. Considering the domestic and industrial requirement the allocation of groundwater for next 25 years comes out to be 18.79 MCM. Leaving this allocation, the groundwater available for irrigation in future is around 53.33 MCM. The canals and reservoirs are other main sources of groundwater recharge in the study area.

## Outputs

### 1. Runoff

#### A. Runoff estimation and computation of its volume

There are several rainfall-runoff models available in the study of hydrological field. In this study, the following empirical formulae have been used and runoff has been estimated by the three methods. Design flood for Indapur tahsil has been worked out by empirical formulae are given below;

1. Dickens formula

$$Q = CA^{3/4}$$

Where Q = flood discharge in cumecs

C = constant depending upon the rainfall depth which may be taken as 13.9 to 19.5 for central India basins

A = catchment area in sq.km.

2. Inglis formula

$$Q = 124A / (A + 10.4)^{0.5}$$

Where Q = flood discharge in cumecs

A = catchment area in sq.km.

3. Nawab Ali Jung Bahadur formula

$$Q = C (0.386A)^{(0.925 - (1/14) \log 0.386A)}$$

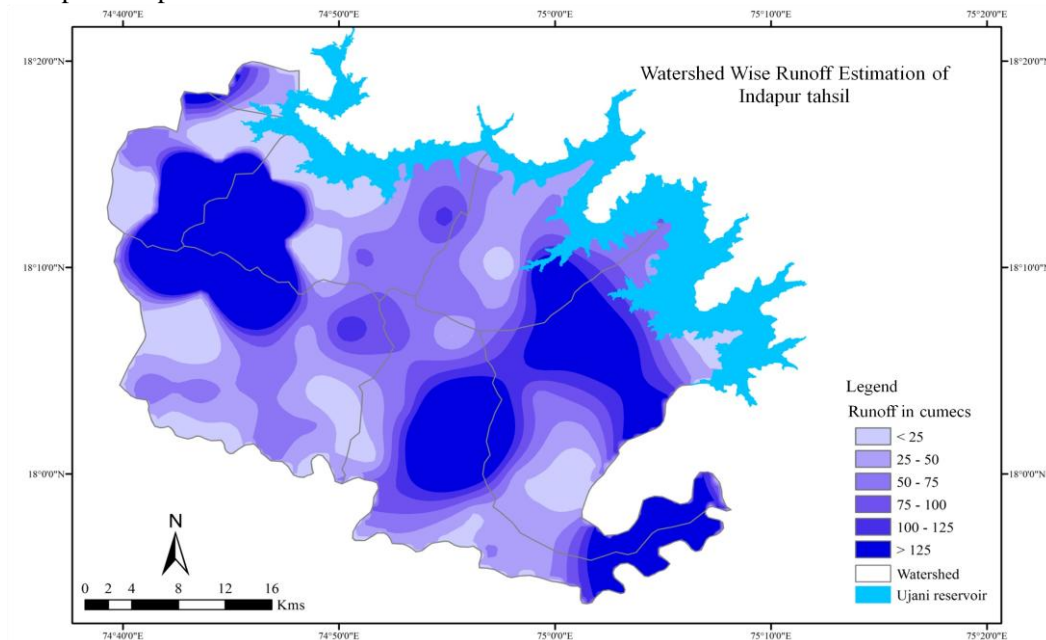
Where Q = flood discharge in cumecs

C = coefficient varies from 49 to 60 with maximum value 86

A = catchment area in sq.km.

#### B. Distribution of surface runoff

Runoff is that portion of rainfall, which enters the stream immediately after the rainfall. It occurs when all losses are satisfied and if rain is still continued, with the rate greater than in-filtration rate, at this stage water starts flowing over the land as overland flow. For the design of any soil and water conservation structures and waterways or channels, runoff volume and peak rate of runoff are required to be estimated. Runoff rate is expressed in cubic meter per seconds and runoff volume or water yield from watershed is generally expressed as m<sup>3</sup>. **Fig. 3a** The study area is characterised by undulating terrain land in western part and eastern part is a plain area.

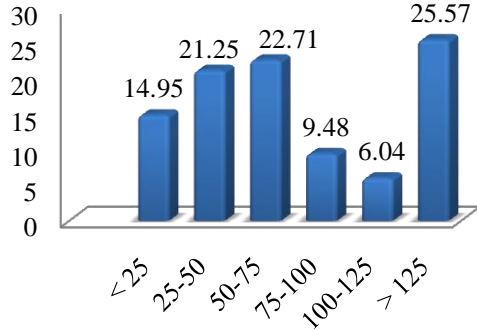


**Fig. 3a**

In the study area it is observed that the maximum 402.25 km<sup>2</sup> (25.57 %) area under more than 125 cumecs runoff and 235.51 km<sup>2</sup> (14.95%) area under less than 25 cumecs. More than 125 cumecs area found western high altitudinal area, eastern side strip between river Bhima and Nira and two patches are found at around Nimgaon Ketki and Indapur settlement. Low runoff (< 25) has found in the Northern area, besides this it found around in patches in the middle and Eastern part of the study area. Besides this 25-50, 50-75, 75-100 and 100-125 cumecs runoff found in patches all over in the study area (**Fig 3a & Fig 3b**).

**Table 2** watershed wise runoff

Sr. No.	Runoff in cumecs	Area		Description
		Km <sup>2</sup>	%	
1	< 25	235.51	14.95	Very low
2	25-50	334.86	21.25	Low
3	50-75	357.76	22.71	Medium
4	75-100	149.32	9.48	High
5	100-125	95.08	6.04	Very high
6	> 125	402.25	25.57	
	Total	1575.38	100.00	

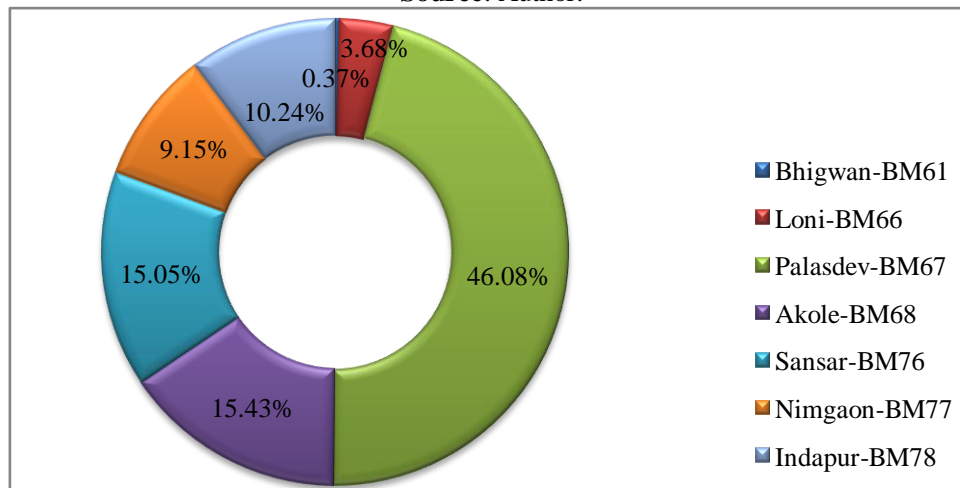
**Fig 3b** Average surface water runoff (% area)

The average surface water runoff of the catchment is estimated to 327.72 MCM/year (**Table 3 & Fig. 4**). This is about 31.14% of the total volume of rainfall for the entire study area. There is great deal of variations in terms of volume of runoff by different watersheds. The maximum contribution of runoff in the watershed no. BM67 area that is amounting 46.08% and lowest contribution can obviously be expected from BM61 Bhigwan area which is only 0.37%. From the following **table no. 5.2** it becomes clear that, due to variation in rainfall and size of considerable amount of rainfall volume does not get converted in to runoff.

**Table 3 and Fig. 4** Watershed wise area and runoff of Indapur tahsil

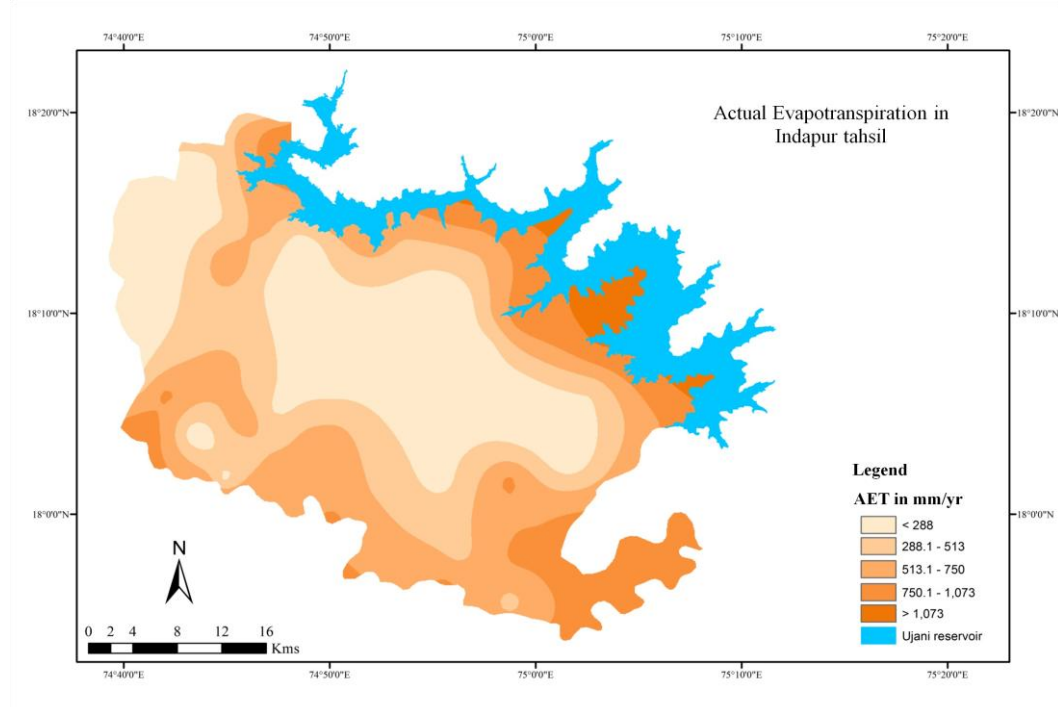
Sr. No.	Name of Watershed Area	Surface Area in		Runoff in	
		Km <sup>2</sup>	%	MCM	in %
1	Bhigwan-BM61	24.53	1.56	1.20	0.37
2	Loni-BM66	194.93	12.37	12.07	3.68
3	Palasdev-BM67	238.97	15.17	150.99	46.08
4	Akole-BM68	125.67	7.98	50.57	15.43
5	Sansar-BM76	337.88	21.45	49.33	15.05
6	Nimgaon-BM77	281.63	17.88	29.98	9.15
7	Indapur-BM78	371.77	23.59	33.57	10.24
	Total	1575.38	100.00	327.71	100.00

Source: Author.

**Fig. 4** Variation in watershed wise runoff

## 2. Actual evapotranspiration

Actual evaporation is a major component in the water balance of a catchment, reservoir or lake, irrigated area. Compared with precipitation and stream flow, the magnitude of actual evaporation over the long term is more difficult to estimate than either precipitation or stream flow. The actual evapotranspiration data obtained from 2006 year has been used for the present study. The spatial distribution pattern of actual evapotranspiration (AE) is shown in the **Fig. 5**. It has distinct to that of PE distribution. But in this case, highest values are observed in the eastern side area and decreasing from east to middle portion of the study area.



**Source:** Remote Sensing and Hydrological Modeling of the Upper Bhima Catchment (2006) **Fig. 5**

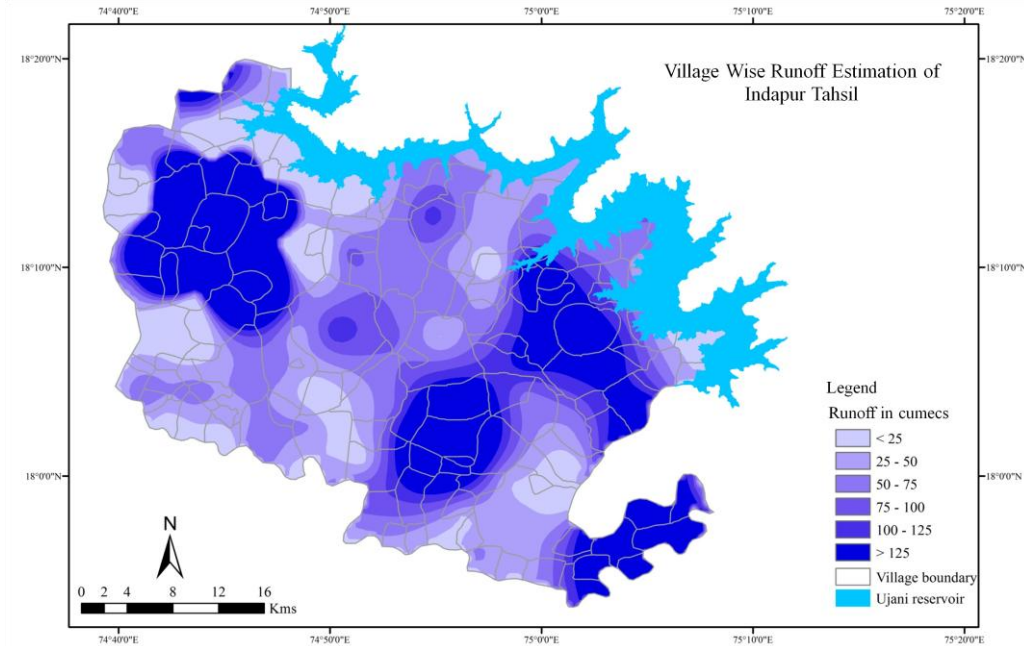
The highest value of 1500 mm is at the village Ganjewalan, Ajoti and Kandalgaon; where the area experiences very heavy rainfall comparatively rest of the study area and in the area of Ujani dam. An increasing trend towards east has been observed in actual evapotranspiration, this is seen in the case of annual potential evapotranspiration. This is because of the dependence of actual evapotranspiration on rainfall. The lowest values of actual evapotranspiration are over the places Nirgude, Mhasobachiwadi, Lakdi, Vyahali, Kauthali, Karewadi, Nimgaon-ketki, Tarangwadi, Zagadewadi, Gokhali, Vadapuri and Galandwadi No.2, which is already discussed, is the lowest rainfall part of the study area. In this area actual evapotranspiration has been observed between 56 mm to 113mm.

## 3. Infiltration capacity of the soil

The study area is in the rain shadow and semi-arid climatic condition. In this climatic condition the direct infiltration is relatively ineffective because of the rarity of rainfalls, low mean average precipitation and high potential evaporation. Furthermore, the high potential evaporation compared to precipitation in semi-arid environment results the low deep infiltration of rainwater. The entire tahsil is the basement of Deccan trap basaltic lava. Typically these rocks form the 'Hard rock terrain' and their physical properties such as porosity and permeability play an important role in the movement and accumulation of groundwater. Therefore, in the study area, ground water of acceptable quality and quantity usually lies very low. There are more than 95% area of the study area shows very low ground water recharge, along the Ujani back water and near the confluence of river Bhima and Nira low recharge the ground water. There are only 74.67 km<sup>2</sup> (4.74%) area recommended for groundwater development in the study area. These are found in the patches in SW and NE part of the study area. Another 1500.71 km<sup>2</sup> (95.26%) area is notable for groundwater development.

### Village wise computation of runoff volume

The average surface water village wise runoff of the study area is estimated to 327.72 MCM/year (Fig. 6), this is about 31.14% of the total volume of rainfall for the entire study area. There is great deal of variations in terms of volume of runoff by different villages. The maximum contribution of runoff in the Akole area that is amounting 79.889 MCM and lowest contribution can obviously be expected from Lamjewadi village that is amounting 0.007MCM.



Source: Author

Fig.6

### Classification of villages based on hydrological equation

It can be deduced from the figure no. 5.5 that, hydrological equation implied for water budget assessment clearly demonstrates that, the entire tahsil is drought prone and faces the problem of water scarcity throughout the year. In order to make the differences again to find out the villages facing very high shortage of water. By adopting the grid operation, reclassification has been achieved and two classes have been determined. One class below '0' indicates more severity covered 566.92 km<sup>2</sup> (35.99%) area (50 villages) and 0-1 shows less severity 1008.46 km<sup>2</sup> (64.01%) area covered (93 villages).

### Conclusions

It has been one of the challenging studies for quantifying the climate change impact wherein the water balance simulation modelling approach has been used to maintain the dynamics of hydrology and thereby make assessments of vulnerability which are more authentic and reliable. The average annual volume of rainfall is 1052.46 MCM. The very low rainfall volume is observed to the northern side sub basin of the tahsil (BM-61) accounts 16.43 MCM i.e. 1.56% and very high rainfall volume is observed to the eastern side sub basins of Indapur tahsil (BM-78) accounts 247.95 MCM which covers around 23.56% of the total study area. After the study of empirical formula, it is noticed that, around 49.08 % area (65 villages) facing very high water scarcity and rest of the villages (78 villages), 50.92% area comparatively show low degree of water scarcity. In an attempt to find out the present villages which are dependent on water supply through water tankers especially in summer months. This overall statistics generated from the raster analysis through the principles of map algebra, clearly indicates that entire tahsil is in water deficit zone, within which different levels of priority have been delineated.

The average annual volume of rainfall is 1052.46 MCM. The very low rainfall volume is observed to the northern side sub basin of the tahsil (BM-61) accounts 16.43 MCM i.e. 1.56% and very high rainfall volume is observed to the eastern side sub basins of Indapur tahsil (BM-78) accounts 247.95 MCM which covers around 23.56% of the total study area. The 'High' ground water potential areas are those having ground water table less than 5 m bgl, admeasures about 394.79 km<sup>2</sup> (25.06%). The 'Medium' areas are those having water table in the range of 5 to 15 m bgl this groundwater potential zone covers 553.12 km<sup>2</sup> (35.11%) of the total study area and the 'Low' ground water potential areas are those having water table



more than 15 m bgl and under these having maximum area i.e. 627.47 km<sup>2</sup> (39.83%) of the total study area.

In the study area it is observed that, the maximum 402.25 km<sup>2</sup> (25.57 %) area under more than 125 cumecs runoff and 235.51 km<sup>2</sup> (14.95%) area under less than 25 cumecs. More than 125 cumecs area estimated for western high altitudinal area, eastern side strip between river Bhima and Nira and two patches are found at around Nimgaon Ketki and Indapur settlement. Low runoff (< 25) has estimated for Northern area, besides this it found around in patches in the middle and Eastern part. Besides this 25-50, 50-75, 75-100 and 100-125 cumecs runoff found in patches all over. The average surface water runoff of the catchment is estimated to 327.72 MCM/year.

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## Levels of Agricultural Development in Satara District

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### Abstract

In the present paper, an attempt has been made to find out the spatial variation in the levels of agricultural development in the Satara district of Maharashtra state. The spatial pattern of agricultural development is determined with the help of fourteen variables, and all the variables of agricultural development are analyzed with the help of 'Z' Score statistical techniques. Based on the composite Z score index study region has been classified into three categories according to their level of agricultural development and map were prepared.

**Keywords:** Agricultural development, Cropping intensity, industrialization.

### Introduction

Agricultural development denotes the quality of the agricultural system of a region; it is a multi-dimensional concept which mainly includes development in a real strength of cropped land, improvement in farm practices, improved farm implements, irrigation system and irrigated area, high yielding improved varieties of seeds, chemical fertilizers, insecticides and pesticides, the intensity of cropping, and specialization and commercialization of agriculture (Mohammed, 1980). Food availability is reducing mainly due to the transportation of cereal crop cultivation into commercial crops; food stability may reduce due to changing land-use patterns associated with industrialization, commercialization, and globalization (Rukhsana, 2010).

The spatial variation in the levels of agricultural development of the Satara district is the result of reciprocal action between the physical, socio-economic, cultural, and climatic aspects of the environment but the impact of local and regional aspects. This research work analysis the Levels of agricultural development in the Satara district at the tahsil level and assesses the role of modern agricultural technology in the development of agriculture in different tahsils of the study region.

### Study Area

The Satara district covers a geographical area of 10,480 sq. Kms. which is 3.4 percent of the Maharashtra state, among the 36 districts of the Maharashtra state, Satara district ranks 12<sup>th</sup> in terms of area, with a population of 30, 03,741 according to the 2011 census. The East-West length of the district is about 135 Kilometres and the width is about North-South is about 112 Kilometres. It is bounded by the Pune in the North, Sangli in the South, Ratnagiri in the West, Raigarh in the North-West, Solapur district in the East. These administrative boundaries coincide with some physical features like Nira River in the North; Sahyadrian range in the West and South-West, Mahadev Hills in the East. The district is administratively divided into eleven Tahsils namely, Mahabaleshwar, Wai, Khandala, Phaltan, Man, Khatav, Koregaon, Satara, Jaoli, Patan, and Karad.

### Objective

The principal objective of the present study is to determine the spatial variation in levels of agricultural development in the Satara district.

### Database and Methodology

The study focuses attention on the determination of the level of agricultural development. The present research work is based on secondary data sources, data collected from district socio-economic review, season and crop report, agricultural department of Satara district. The investigation is carried out for the year 2016-17. The basic unit for investigation is the tahsil and the district as a whole. A set of fourteen variables of agricultural development related to agricultural sectors have been taken into account to determine the level of agricultural development. These variables fall into categories like-

- X<sub>1</sub>- Percentage of Net sown area to total geographical area
- X<sub>2</sub>- Percentage of the Net sown area to gross cropped area
- X<sub>3</sub>- Percentage of Food grain crop area to gross cropped area
- X<sub>4</sub>- Percentage of non-Food grain crop area to gross cropped area
- X<sub>5</sub>- Percentage of sugarcane crop to the net sown area
- X<sub>6</sub>- Percentage of oilseed crops to net sown area
- X<sub>7</sub>- cropping intensity

- X<sub>8</sub>-Percentage of agriculture workers to the net sown area  
X<sub>9</sub>-Percentage of the net irrigated area to net sown area  
X<sub>10</sub>- the number of irrigatedwell available per 100 hect. Of net sown area  
X<sub>11</sub>- the number of electric pumps available per 100 hect. of net sown area  
X<sub>12</sub>- the number of livestock per 100 hect. ofthe net sown area  
X<sub>13</sub>- the number of tractors available per 1000 hect. Of net sown area  
X<sub>14</sub>- Percentage of literacy

The data for each variable that determines the areal variations of levels of agricultural development have been computed into the Z score (standard score) method. It may be expressed as –

$$Z \text{ score} = \frac{x - \mu}{\sigma}$$

Where **Z** score is the standard score of the variables, **X** is indicating a raw score to be standardized, **μ** is the mean of the variables, and **σ** is the standard deviation of the variables. Further, the result of the standard score obtained from the selected indicators was aggregated by composite standard score (CSS) for each tahsil. It may be expressed as-

$$CSS = \frac{\sum z}{n}$$

Where **CSS** is the Composite standard score of the variables, **n** is the number of variables, and **Σz** is the sum of all variables. So, the regional disparities have in the levels of agricultural development of the Satara district may be obtained.

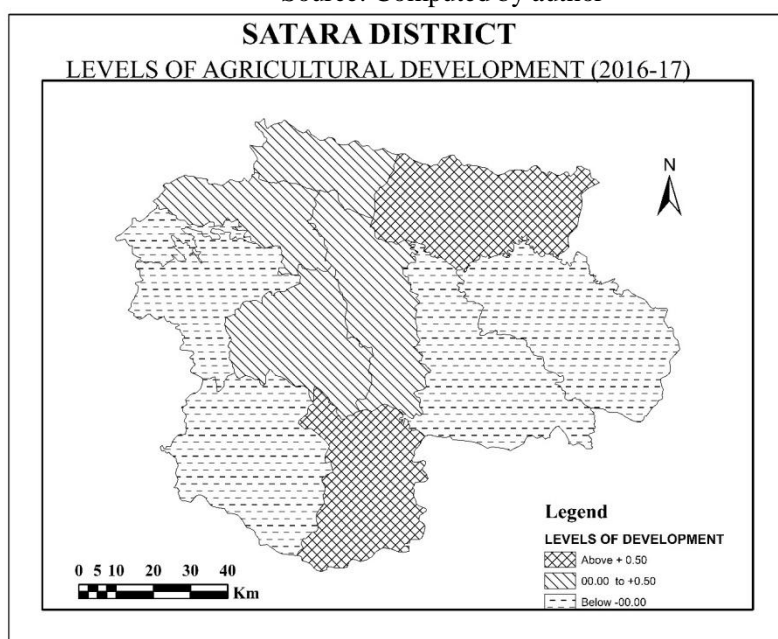
### Spatial Variation In Levels Of Agricultural Development

Table 1 and map 1 show the tahsil-wise general picture of the spatial distribution of agricultural development. The distribution pattern of the level of agricultural development is uneven all over the district and varies from tahsil to tahsil. Based on the composite Z score index, the study region has been classified into three categories high, medium, and low according to their level of agricultural development. These are follows-

**Table-1 Spatial Pattern and Levels of Agricultural Development**

Sr.No.	Composite Z score value	Levels of agri. Development	No. of tahsils	Name of the tahsils
1	Above + 0.50	High	02	Karad, Phaltan
2	00.00 to +0.50	Moderate	04	Wai, Satara, Khandala, Koregaon
3	Below -00.00	Low	05	Khatav, Man, Patan, Jaoli, Mahabaleshwar

Source: Computed by author





**High Level of Agricultural Development (Above + 0.50)**

This category consists of two tahsils, Viz. Karad and Phaltan tahsils. This high level of agricultural development is due to the use of HYV varieties, farming is generally carried out with a commercial attitude, by adopting new farm technology, integrated nutrient management, integrated pest management, developed irrigation facility, black and alluvial soil of river basin and growth of Agro-based industries.

**Moderate Level of Agricultural Development (00.00 to +0.50)**

Wai, Satara, Khandala, Koregaon tahsils are fall in this category ranging from 00.00 to +0.50 z score composite index. Factors like urbanization and industrialization and undeveloped irrigation facilities affect the agricultural development of these tahsils.

**Low Level of Agricultural Development (Below -00.00)**

Five tahsils having their composite z score below -0.00 fall under low level of agricultural development and these are Khatav, Man, Patan, Jaoli, Mahabaleshwar that show a low level of agricultural development in the study region, due to rugged topography, drought-prone area, lack of irrigation facilities, unfertile soil and insufficient capital.

**Conclusion:**

The investigation reveals the spatial variation in levels of agricultural development in the Satara district. It is uneven and varies from tahsil to tahsil. The composite z score index of each tahsil varies from -0.71 to +0.79. The highest agricultural development was observed in Karad and Phaltan tahsils. Wai, Satara, Khandala, Koregaon tahsils have a medium level of agricultural development. The remaining five tahsils namely, Khatav, Man, Patan, Jaoli, Mahabaleshwar have identified less than -0.00 composite z score in the study region.

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# An Overview of Agricultural Sustainability In Sangli District Of Maharashtra Using Indexing Approach.

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## Abstract:

Agriculture is the lynchpin of Indian economy because nearly 54% working population and 48% households depends on it for their livelihood but it has been facing many challenges and the sustainability of agriculture is one of the imperatives among them. The present study is pioneering in the field of agricultural development which estimates the Sustainable Agricultural Index (SAI). It is a composite index and one of the competent and flexible frameworks to analyse a region's agricultural sustainability encompassing the ecological security, economic efficiency and social equity dimensions of agricultural sustainability in the given region. The present study is analytical and covers eleven blocks of Satara district and nine sub indicators of three components for the period of 2016 to 2020 which estimated sustainable agricultural index of Satara district. The study found that by using average values of three components and their sub-indicators, Ecological Security Index (ESI) was 0.518, Economic Efficiency Index (EEI) was 0.405, Social Equity Index (SEI) was 0.669 and Sustainable Agricultural Index (SAI) was 0.531 for the period 2016 to 2020. The block wise analysis reveals that Mahabaleshwar was ranked highest in ecological security while Satara was lowest. Similarly, Karad had highest economic efficiency whereas Mahabaleshwar had lowest. Talking about the social equity, Jaoli was top ranked and Satara was at the bottom. Likewise, sustainable agricultural index of Jaoli was highest among all the blocks while Satara was at the bottom rank. We have categorised the SAI into five categories and all the four indices are coming into medium sustainable agricultural development category. The indices values will help to give priority to the vulnerable areas and accordingly policies will be framed for improving agricultural sustainability.

**Keywords:** Ecological security; Economic efficiency; Social equity; Sustainable Agricultural Index; Agricultural sustainability.

## Introduction:

The concept of agricultural sustainability is getting wide attentions from different backgrounds. The General Assembly adopted 2030 Agenda for Sustainable Development that comprises seventeen Sustainable Development Goals (SDGs) which are based on the tag line "*leaving no one behind*". Zero Hunger is one of the goals which clearly speaks about the reducing hunger from the world by developing our farm sector in sustainable way. The assessment of agricultural sustainability has its root in its different dimensions. The sustainable development in general and sustainable development of agriculture (SDA) in particular are ecology, economics and inter and intra- generational equity Barbier (1987) & Daly (1992) & Swaminathan (1991). Any approach for developing indicator for sustainable development of agriculture (SDA) should necessarily reflect all the three dimensions i.e., ecological security index (ESI), economic efficiency index (EEI), and social equity index (SEI). The two major definitions are given as far as sustainable agricultural development is concern, Firstly, "When current and future food demands can be met without unnecessarily compromising economic, ecological, and social/political needs then agriculture is considered to be sustainable" Królczyk et al. (2015) and secondly, Food and Agriculture Organization (FAO) defines the Sustainable agricultural development is "the management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations" FAO (1991). As per the Council on Energy, Environment and Water (CEEW) less than 4% of Indian farmers have adopted the sustainable agriculture practices in India.

## Materials and Methods:

### 1. Analytical Framework:

For the evaluation of spatiotemporal variation in the relative status of agricultural sustainability of the different blocks of Satara district, we have adopted the approach used by United Nations (UN) for developing Human Development Index (HDI). UNDP (1990).

To operationalize the concept of Sustainable Agricultural Development (SDA) within the context of Sustainable Development (SD), Let  $SAI_{ij}$  be the index for the  $i^{th}$  component of SAI related to the  $j^{th}$  entity

(blocks in district context) and let  $X_{ij}$  be the value of the variable representing the  $i^{\text{th}}$  component of SAI related to the  $j^{\text{th}}$  entity. Then the index for the  $i^{\text{th}}$  component of SAI of the  $j^{\text{th}}$  entity can be calculated as follows: Sajjad Harron et al.(2014)

$$SAI_{ijk} = \frac{X_{ijk} - \text{Min}_{ijk}}{\text{Max}_{ijk} - \text{Min}_{ijk}} \text{ ----- For Positive indicators}$$

$$\frac{\text{Max}_{ijk} - X_{ijk}}{\text{Max}_{ijk} - \text{Min}_{ijk}} \text{ ----- For Negative indicators}$$

After calculation of  $SAI_{ijk}$  for variables, the composite index is calculated by taking average of its component indicators.

$$SAI_{ijk} = \frac{\sum_{i=1}^I SAI_{ijk}}{I}$$

The composite index will analyse the regional disparities and identification of priorities in sustainable agricultural development of Satara district of Maharashtra.

## 2. Indicators selected for the study, its scope in sustainable agricultural development and its functional relationship:

To construct SAI concerning the set of variables which has the capability to imitate something more pertinent and substantial about the ecological, economic and inter-intra generational equity aspect of sustainable development of agriculture.(Saleth, 1993)The table illustrate that the nine indicators used for the particular study with its scope in sustainable development and functional relationship. It will tell us the justification or logic behind the selection of particular indicators for the assessment of agricultural sustainability.

Table 01: Indicators selected for assessment of sustainable agricultural development in Satara.			
Sr. No	Indicator	Scope in Sustainable Development	Functional Relationship
<b>Ecological Security Indicators</b>			
1.	Total Forest Area (Hectare)	Forest cover is key indicator for maintaining ecological balance, pollution control and absorption of GHGs.	Positive
2.	Population Density (Square KM)	Higher population density leads to intense pressure on natural resource base, highest pollution and environmental degradation.	Negative
3.	Total Livestock (Numbers)	Livestock are responsible for Methane (CH <sub>4</sub> ) emission and highest water use.	Negative
<b>Economic Efficiency Indicators</b>			
4.	Area under Sugarcane Cultivation (Hectare)	Sugarcane is major cash crop in western Maharashtra and leading income generating crop.	Positive
5.	Fertilizer Consumption (Kg)	Fertilizer provides nutritional requirement of crop for boosting agricultural production as well as productivity.	Positive
6.	Net Irrigated Area (Hectare)	Irrigation plays crucial role in increasing agricultural production.	Positive
<b>Social Equity Indicators</b>			
7.	Sex Ratio (Per 1000)	Sex ration identifies equity between male and female.	Positive
8.	Infant Mortality Rate (Per 1000 infants)	Higher the infant mortality, higher will be the social inequality and poorer health services.	Negative
9.	Households BPL (Numbers)	Below poverty households showcase the deprived section of the society and poor standard of living	Negative

Source: Deshmukh & Patil (2021)

### 1. Results/ Observations:

To estimate index values of ecological security, economic efficiency and social equity indicators we applied equation of sustainable agricultural index (SAI) of their representative values and the value of SAI for whole region is calculated by taking arithmetic mean of its component indices by using equation that gives composite index.

#### 1. The construction of Sustainable Agricultural Index (SAI):

The human activities have led to significant changes in the environment that can directly affect the ecological security in a region. Agricultural practices have been influencing the environment and in turn, it impacted by the ecology. Chambers (1986). The secondary data of nine indicators has been collected from various sources such as socio-economic review of Satara district (2016-2020), District Census Handbook of Satara (2011), Forest survey and Agricultural census of Maharashtra. The data given in table 02 is an average of time series data of five years i.e., 2016 to 2020. The situation is analysed for five years and accordingly policy implications are suggested for ecological security, economic efficiency and social equity which will lead to sustainable agricultural development of Satara district of Maharashtra,

Blocks	Ecological Security Indicators			Economic Efficiency Indicators			Social Equity Indicators		
	Total Forest Area (Hectare)	Population Density (Square KM)	Total Livestock (Numbers)	Area under Sugarcane cultivation (Hectare)	Fertilizer Consumption (Kg)	Net Irrigated Area (Hectare)	Sex Ratio (Per 1000 Persons)	Infant Mortality Rate (Per 1000 Childs)	Households BPL (Numbers)
Mshwar	18153	111	16411	328	1882	3614	866	1	1206
Wai	12659	280	68704	3388	10723	10765	988	4	4053
Khandala	5813	264	86709	1065	8925	9465	956	2	3396
Phaltan	9766	274	209864	6111	29885	26190	973	5	7442
Man	13147	146	264260	1479	12410	19328	978	6	5112
Khataav	4683	189	127775	3237	17836	14966	1012	6	7063
Koregaon	9010	270	104904	5350	16054	16019	978	1	6621
Satara	8154	548	97605	9698	17948	23388	959	145	7666
Jaoli	14932	180	31645	1156	5375	7957	1025	4	3098
Patan	27170	203	116127	2574	14225	14229	996	5	9031
Karad	10660	510	187282	22958	41703	28757	966	69	10341
<b>SATARA</b>	<b>134147</b>	<b>270</b>	<b>1311286</b>	<b>57344</b>	<b>176966</b>	<b>15880</b>	<b>973</b>	<b>23</b>	<b>65029</b>

Sources: Socio Economic reviews of Satara District 2016-2020, District Census Handbook of Satara

2011.

Blocks	Ecological Security Indices			Economic Efficiency Indices			Social Equity Indices		
	Total Forest Area Index	Density of Population Index	Total Livestock Index	Area under Sugarcane cultivation Index	Fertilizer Consumption Index	Net Irrigated Area Index	Sex Ratio Index	Infant Mortality Rate Index	Households BPL Index
Mahabaleshwar	0.599	1.000	1.000	0.000	1.000	0.000	0.000	1.000	1.000
Wai	0.355	0.613	0.789	0.135	0.778	0.284	0.77	0.978	0.688
Khandala	0.050	0.650	0.716	0.033	0.823	0.233	0.566	0.996	0.76
Phaltan	0.226	0.627	0.219	0.256	0.297	0.898	0.673	0.971	0.317

Man	0.376	0.920	0.000	0.051	0.736	0.625	0.708	0.965	0.572
Khatav	0.000	0.822	0.551	0.129	0.599	0.451	0.919	0.969	0.359
Koregaon	0.192	0.636	0.643	0.222	0.644	0.493	0.707	1.000	0.407
Satara	0.154	0.000	0.672	0.414	0.597	0.786	0.587	0.000	0.293
Jaoli	0.456	0.842	0.939	0.037	0.912	0.173	1.000	0.979	0.793
Patan	1.000	0.789	0.598	0.099	0.69	0.422	0.820	0.972	0.143
Karad	0.266	0.087	0.311	1.000	0.000	1.000	0.633	0.526	0.000
<b>Satara District</b>	<b>0.334</b>	<b>0.635</b>	<b>0.585</b>	<b>0.216</b>	<b>0.643</b>	<b>0.488</b>	<b>0.671</b>	<b>0.851</b>	<b>0.485</b>

Source: Authors calculations.

Table 04 reveals that the Ecological security, Economic efficiency, social equity and Sustainable agricultural index of Satara district for the period of 2016-2020 and their respective ranking for the period of 2016 to 2020.

**Table 04: Ecological security, Economic efficiency, social equity and Sustainable agricultural index of Satara district for the period of 2016-2020.**

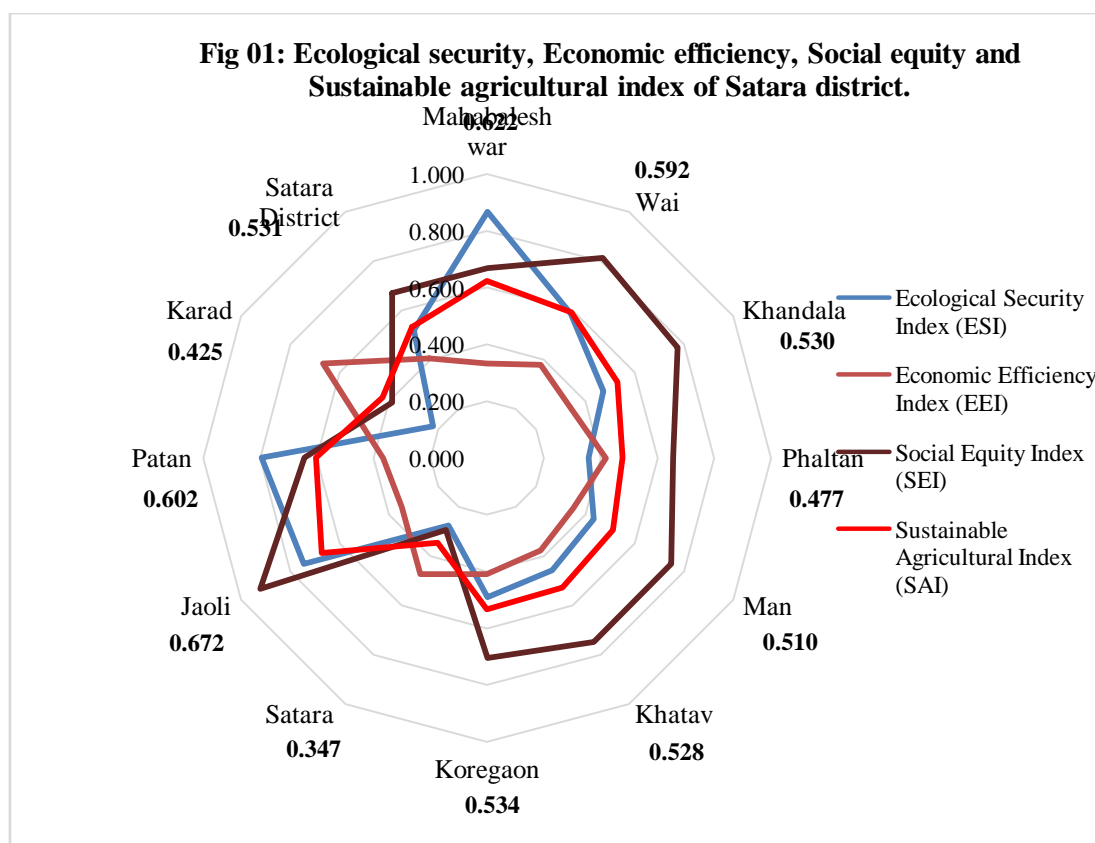
Block	Ecological Security Index (ESI)	ESI Rank	Economic Efficiency Index (EEI)	EEI Rank	Social Equity Index (SEI)	SEI Rank	Sustainable Agricultural Index (SAI)	SAI Rank
Mahabaleshwar	0.866	1	0.333	11	0.667	7	<b>0.622</b>	2
Wai	0.586	4	0.378	5	0.812	2	<b>0.592</b>	4
Khandala	0.472	6	0.344	10	0.774	3	<b>0.530</b>	6
Phaltan	0.357	9	0.419	3	0.654	8	<b>0.477</b>	9
Man	0.432	8	0.350	8	0.748	5	<b>0.510</b>	8
Khatav	0.458	7	0.376	6	0.749	4	<b>0.528</b>	7
Koregaon	0.490	5	0.407	4	0.705	6	<b>0.534</b>	5
Satara	0.275	10	0.471	2	0.293	11	<b>0.347</b>	11
Jaoli	0.746	3	0.346	9	0.924	1	<b>0.672</b>	1
Patan	0.796	2	0.366	7	0.645	9	<b>0.602</b>	3
Karad	0.221	11	0.667	1	0.386	10	<b>0.425</b>	10
<b>Satara District</b>	<b>0.518</b>	-	<b>0.405</b>	-	<b>0.669</b>	-	<b>0.531</b>	-

Source: Authors calculations based on table 03

The average raw data has been collected from various sources and based upon it we have estimated respective indices values of different components and indicators used for the study:

**Ecological Security Index (ESI):** The index values of ESI will gives us information about ecological security of Satara district. The study reveals that Mahabaleshwar (0.866) has highest ecological security followed by Patan (0.796) whereas Satara (0.275) and Karad (0.221) had lowest ecological security. Hence, Satara and Karad required immediate attention towards environmental issues it may include growing the forest area by planting trees, controlling pollution, preventing excessive population, adopting environmentally friendly agricultural practices etc. Therefore, the policies must be framed to boost environmentally friendly agricultural practices.

**Economic Efficiency Index (EEI):** The economic efficiency index will help to analyse economic viability of Satara district. The study reveals that Karad (0.667) had highest economic efficiency followed by Satara (0.471) while Mahabaleshwar (0.333) and Khandala (0.344) had lowest economic efficiency among all the blocks. To improve economic efficiency through agriculture, include modernization of agriculture by increasing irrigated area will results in increasing agricultural output, appropriate use of fertilizers and increasing area under commercial crops etc. To improve the livelihood of the farmers it is necessary to increase income of the farmers. Therefore, special attention must be given to increase economic efficiency of the Satara district.



**Social Equity Index (SEI):** Agricultural sustainability is a three-dimensional approach it also includes societal equality component. The study reveals that Jaoli(0.924) and Wai(0.812) had highest social equity index in study period whereas Satara(0.293) and Karad(0.386) had lowest social equity indices. In the process of human development more attention should be given to social equity to bridge the gap between poor and rich. As per the recent reports on inequality, poor become poorer and richer becomes richer. To increase social equity, it requires spreading of quality education, better health services and adequate rural infrastructure for socio-economic development of the region.

**Sustainable Agricultural Index (SAI):** it is newly developed index which estimates regions agricultural sustainability for given period of time. From the study we found that Jaoli(0.602) had highest agricultural sustainability followed by Madha (0.622). However, Satara (0.347) and Karad (0.425) accounts lowest agricultural sustainability for the period of 2016-2020. The simultaneous improvement in all the three component such as ecological security, economic efficiency and social equity is essential for sustainable and long-term improvement of agricultural sustainability in Satara district of Maharashtra.

## 2. Categorisation of Sustainable Agricultural Index (SAI) and division of blocks according to their indices value:

The block wise agricultural sustainability is estimated by using sustainable agricultural index for the period of 2016 to 2020. The study found that no block of Satara district is neither under the very high agricultural sustainability nor in very low agricultural sustainability category. However, three blocks come under High agricultural sustainability category namely; Madha, Karmala and Pandharpur and Satara block comes under low agricultural sustainability category. Whereas remaining all the blocks include in medium agricultural sustainability category as mentioned in table 05.

Table 05: Categorisation of Sustainable Agricultural Index (SAI)				
Very High (0.81 above)	High (0.61-0.80)	Medium (0.41- 0.60)	Low (0.21 - 0.40)	Very Low (Below 0.20)
No Blocks	Jaoli Mahabaleshwar Patan	Wai Khandala Phaltan Man Khatav Koregoan Karad	Satara	No Blocks

Source: Compiled by Author.

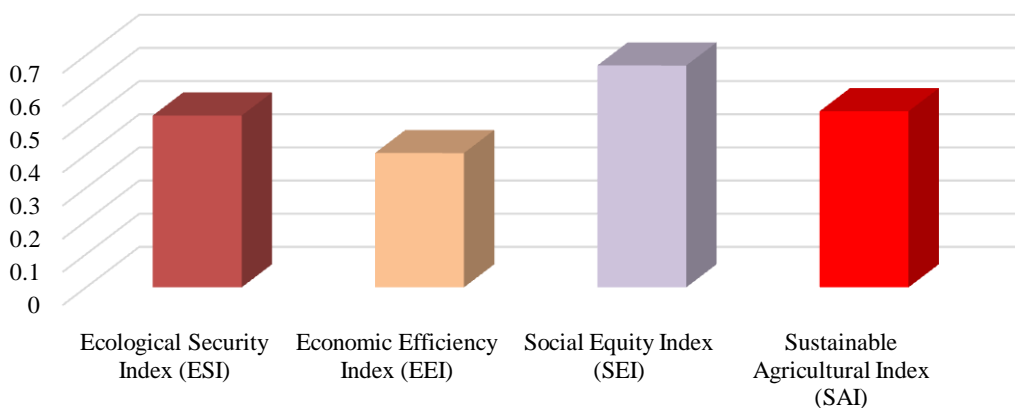
### 3. Categorization of indices values of component of sustainable agricultural index (SAI):

The indices values of the components of sustainable agricultural index (SAI) have mentioned in table 06. The values reveal that Satara district has highest social equity index followed by ecological security but economic efficiency is lowest among them. The policies must be framed to overcome respective problem.

Table 06: Components of SAI and its indices value	
Index	Values
Ecological Security Index (ESI)	0.518
Economic Efficiency Index (EEI)	0.405
Social Equity Index (SEI)	0.669
<b>Sustainable Agricultural Index (SAI)</b>	<b>0.531</b>

Source: Compiled by Author.

**Fig 02: Indices value of Ecological security, Economic efficiency, Social equity and Sustainable agricultural index**



**Discussion:**

The ecological, economic and social indices of various blocks of Satara district are estimated for the period of 2016-2020. The study reveals that there are lot of further scopes are present for improving the agricultural sustainability of Satara district. The policy maker should give priority to those blocks whose indices values are lower for all the components and sustainable agricultural index. The indices values will help to give priority to the vulnerable areas and accordingly policies will be framed for improving agricultural sustainability. The important recommendations are as follows:

1. The Sustainable Agricultural Index (SAI) and its components with pertinent sub-indicators will provide governments the strategic information for evidence-based policies and it can be used as policy tool.
2. According to National Forest Policy 1952 the critical minimum forest for the plains, plateau and hills and mountains regions are 20%, 33.3 % and 66.6 % but from the empirical illustration we found that very few blocks are accordance with the norms set by the government. NFP(1952) The government should strengthen the rules and regulation related to forest conservation and promote schemes like “*zade lava, zade Jagava*”
3. The policies related to the use of fertilizers must be design in such a way that the trade- off between use of fertilizers, pesticides and agricultural output must be minimal.
4. The modern agriculture requires skillsets for practicing agriculture but the literacy is the major hindrance in developing countries which ultimately affecting the ways and means of practicing agriculture which further affects the agricultural yield and health of the soil.
5. Since it is three-dimensional approach of agricultural sustainability all its components such as ecology, economy and equity must grow simultaneously until we achieve highest agricultural sustainability. For that, policy must be farmed to cover all the three dimensions.
6. The SAI approach is not only useful to establish inter regional priorities for the allocation of agricultural investments but also its priorities programmes/projects related to each region.
7. It is very much important to create awareness among the farmers about the Agro-environmental sustainability and sustainable agricultural practices (SAPs) of doing agriculture.

**Acknowledgment:**

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## **A Study on Problems Of Scheduled Caste Entrepreneurs In Kolhapur City**

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### **Abstract:**

According to the 2011 census, the population of Scheduled Castes in India is 201,378,086 and the population of Scheduled Castes in Maharashtra is 13275898 and the population of Scheduled Castes in Kolhapur district is 5,04,461. India has a high population growth rate. Without the development of people of all religions living in India, the Indian economy will not be able to move from a developing state to a developed country. Industry is an area that can achieve economic growth by mobilizing the country's economy. If people of different castes and religions of the country work in the field of industry and the Government of India helps them, then the economic development of the country can be accelerated. If the Scheduled Castes start working in entrepreneurship, their income will increase and their social and economic development will increase. The majority of the Scheduled Castes work as laborers because they have been deprived of development for thousands of years by the old traditions and conservatives. If the Scheduled Caste community gets new opportunities in entrepreneurship, they will create new sources of income. The present research paper seeks to study the socio-economic background and problems of SC entrepreneurs.

**Key word: scheduled Caste, entrepreneurs, Development, socio-Economic**

### **Introduction:**

According to the 2011 census, Scheduled Castes make up 16.6% of India's population. As a result, their participation in entrepreneurship is very low. The Scheduled Castes have been deprived of development for thousands of years. If the overall development of the country is to be achieved, the Scheduled Castes must be involved in economic and industrial activities. They need the support of financial institutions to promote them. But in India, it has been seen that the commercial banks have a traditional and narrow view of financing the entrepreneurs of the Scheduled Caste community as they are financially weak and unable to provide collateral. They prefer entrepreneurs who are already stable in the industry and have the ability to keep collateral for financing.

### **Definitions:**

**According to Peter F. Drucker** – “An entrepreneur is one who always searches for change, responds to it, and exploits it as an opportunity. Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or service”.

**According to Schumpeter** “Entrepreneurship is based on purposeful and systematic innovator. It included not only the independent business but also company directors and managers who actually carry out innovative functions”.

**According to Robert K. Lamb (1952) defined** “Entrepreneurship is that form of social decision making performed by economic innovators.”

**According to Robert C. Ronstadt (1984) defined** “Entrepreneurship is the dynamic process of creating incremental wealth.”

### **Review Of The Literature:**

Shrikrishna Mahajan (2011) studied in his research paper in titled “Entrepreneurship Among Marginalised Groups In India: An Empirical Study Of Scheduled Castes With Special Reference To Maharashtra” In the post-globalization period, the Scheduled Castes are one of the most neglected elements. In order to achieve their objective of holistic development and inclusive growth, this research study suggests the need to focus on entrepreneurial development among the Scheduled Castes (SC) people and effective implementation of development programs for the Scheduled Castes. The main purpose of this research paper is to identify inter-generational business dynamics and study the role of motivating factors, as well as to provide financial assistance to SCs for their entrepreneurship development. Also tried to know the problems of Scheduled Caste Entrepreneurs. This Research Paper is an analytical study conducted in selected four districts of Maharashtra. In this research paper descriptive method has been used for the study whereas the data have been collected through primary and secondary sources. This research paper concluded that Only small proportion of respondents (21 percent) was able to get bank loans sanctioned.

**Mahajan Shikha (2013)** in his study entitled **“Women Entrepreneurship in India”** focuses signal as a potential emerging human resource in the 21st century and emphasizes women entrepreneurs. The primary objective of this paper is to find out the status of women entrepreneurs in India and is to study the successful story of Hina Shah, India's most successful women entrepreneurs. The women of the 21st century are not limited to the homes rather than the educated, knowledgeable and innovative part of the population that have the potential to transform the industries which are not limited to traditional sources. Based on this analysis, women entrepreneurship is promoted by the spirit and some recommendations to help women become successful entrepreneurs.

**Prof. Shabana A.Memon, (2012)** have examined research paper entitled **“A STUDY OF WOMEN ENTREPRENEURSHIP DEVELOPMENT IN KOLHAPUR CITY”** the main objective of this research paper are To study the profile of women entrepreneurs. And explore the difficulties of women entrepreneurs in Kolhapur city. In this research paper researcher has adopted survey as well as observation method. according to collected data Majority of the Women Entrepreneurs are found to be educated up to Graduation i.e. 56 %, up to Post Graduation it is 26 % and up to 10th standard 16 %. according to collected data the reason behind starting an enterprise is to make money and to use the skill and knowledge. There are various pull and push factors which makes women decide to taking up ventures. in this research study researcher seen that 84% of the women entrepreneurs do not avail the facilities provided by government to women entrepreneurs. in this research paper researcher concluded that In the digital age in India, the challenges and opportunities for women are rapidly increasing. The rise of women entrepreneurs and their contribution to the national economy is huge. Job seekers are becoming job creators.

**ASHWINI DESHPANDE and SMRITI SHARMA (2013)** have examined research Artical entitled **“Entrepreneurship or Survival? Caste and Gender of Small Business in India”** Through this article, the researcher seeks to understand the involvement of Dalits and other neglected groups in micro, small and medium enterprises. To analyze this article, the author has taken the unit-level data of the registered product department of MSME Census 2001-02 and 2006-07. With the exception of the North-Eastern States, the Scheduled Castes and Scheduled Tribes are under-represented in business. But there seems to be an increase in Dalit entrepreneurship. In this research paper, the researcher found that Dalits do not have the main means of job creation. Women belonging to Scheduled Castes and Scheduled Castes are deprived due to their gender and their lower caste status.

**Kamble C.B, Dr.Mahajan S.S. (2014)** **“Entrepreneurship Development Among Scheduled Caste Beneficiaries In Kolhapur District: A Study Of MPBCDC”** the main objective of this research paper To study the role of M.P.B.C.D.C. in entrepreneurship development of Scheduled Caste beneficiaries in Kolhapur district. And study the various schemes of M.P.B.C.D.C. in Kolhapur district. he has collected data through primary and secondary he has adopted stratified random sampling method to collect the required data. He has been taken 382 beneficiaries, out of total population 7262 beneficiaries which are divided into five schemes of the corporation. and The secondary data has been collected through reports of Mahatma Phule Backward Class Development Corporation .he has used statistical tools for data analysis interpretation he has used analytical and diagnostic research methods to evaluate the performance of MPBCDC .he has concluded this MPBCDC scheme played role is very important to provide required entrepreneurial finance to the beneficiaries belongs to Scheduled Castes beneficiaries. As well as It is found that there significant impact of MPBCDC schemes on entrepreneurship development among SCs in Kolhapur district.

**Anek Lal Barman (2014)** studied in his research paper in titaled **“Socio- Economic Status of Scheduled Caste People in Kamrup District of Assam”** the main objective of this research paper is studying the socio- economic status of scheduled caste people in Kamrup district of Assam. In this research paper researcher used a purposive sampling method for sample selection. Researcher selected 100 scheduled caste people for sampling. researcher collected data through field survey. for this research study researcher selected tool Socio-economic status scale of Dr. Kuppuswamy. in this research paper researcher concluded that the socio-economic status of SC people is low. Their backwardness is caused by the financial problems. For this problem they failed to achieve education of their children. That is why SC people are not equally developed with others.

#### **Historical Background of Sc Entrepreneurs:**

Dr. According to Babasaheb Ambedkar, Scheduled Castes were known as untouchables. Despite being an important part of Hindu society, thousands of years of social oppression, Is an element of economic and social exploitation and politically neglected. The people in this community were uneducated, economically

weak and socially backward and due to lack of skills they were mainly engaged in traditional and low paying jobs.

**Statement Of The Problem:**

The statement of the problem of the present research is A Study on Problems of scheduled cast entrepreneurs in Kolhapur City

**Significance Of The Study:**

The present study focused on the problems of scheduled caste entrepreneurs in Kolhapur City. This study is planned according to the current situation.

**Scope Of The Study:**

The geographical scope of the present study is limited to Kolhapur city and availability of data the researcher has decided to select only one city.

**Research Methodology**

For this research purpose, following research methodology have been applied

**Research Questions:**

1. To understand the socio economic condition of scheduled cast entrepreneurs
2. To study problems faced by scheduled cast entrepreneurs

**Research Main Objectives:**

The present study has been carried out with the following objectives in

1. To study the socio-economic background of the scheduled cast entrepreneurs in Kolhapur city
2. To study problems faced by scheduled cast entrepreneurs in the Kolhapur city
3. To suggest meaningful suggestions if any.

**Research Design:**

Descriptive research structure has been used in the present research. And focuses on the problems of SC entrepreneurs in Kolhapur city. And in order to draw conclusions and give suggestions in the presented research, also all the rules of research have been followed.

**Data Collection And Sampling Design:**

For this study, 150 samples were taken on the purposeful and snowball sampling method. Primary Data was collected from 150 sample respondents across Kolhapur city along with structured interview schedule also secondary data was collected from library resources.

**Limitations Of The Study:**

1. The study is limited to Kolhapur city.
2. The data is collected from only 150 scheduled caste entrepreneurs.

**Factors Influencing Scheduled Caste Entrepreneurship:**

Numerous studies have shown that two factors influence Scheduled Caste entrepreneurship. These are as follows.

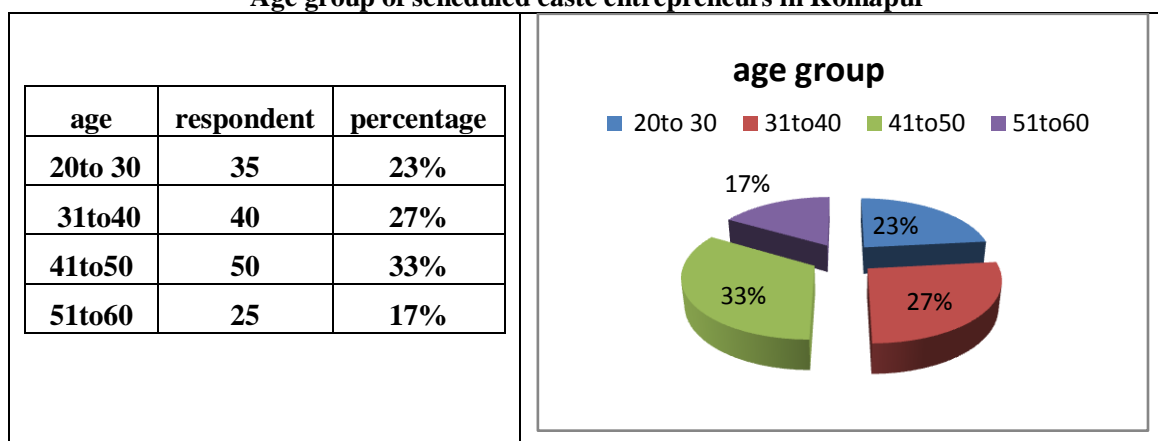
**Pull Factor:** Bridge elements indicate these elements, which encourage people belonging to Scheduled Castes to become entrepreneurs., Government plans, desire to start new business, efforts to improve social status, honor, prestige,

**Push Factors:** These are the factors that force Scheduled Castes to become entrepreneurs. These include financial difficulties, family responsibilities, unemployment, lack of own land, lack of money,

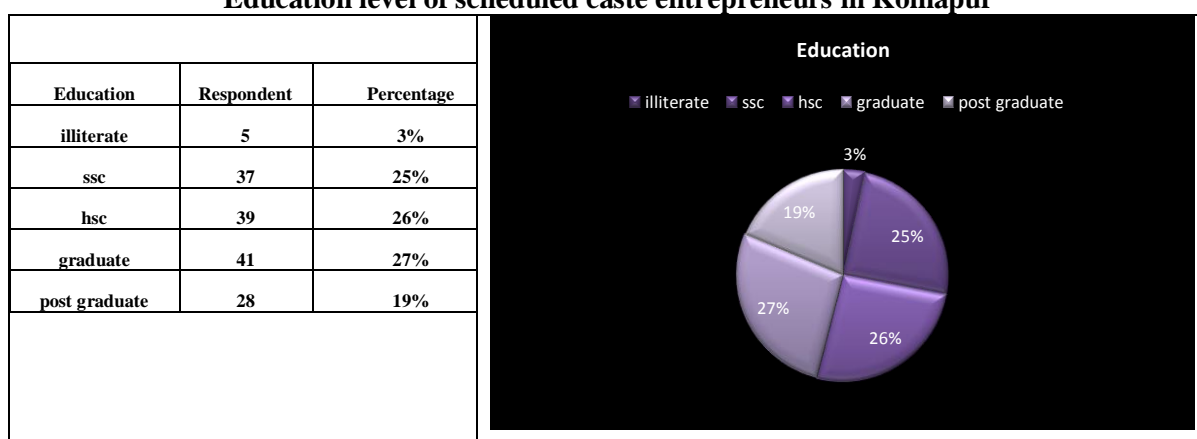
**Analysis And Interpretation Of Data:**

According to Kothari (2004), Data analysis is the process of organization, manipulation, and consideration of the meaning of data collected.

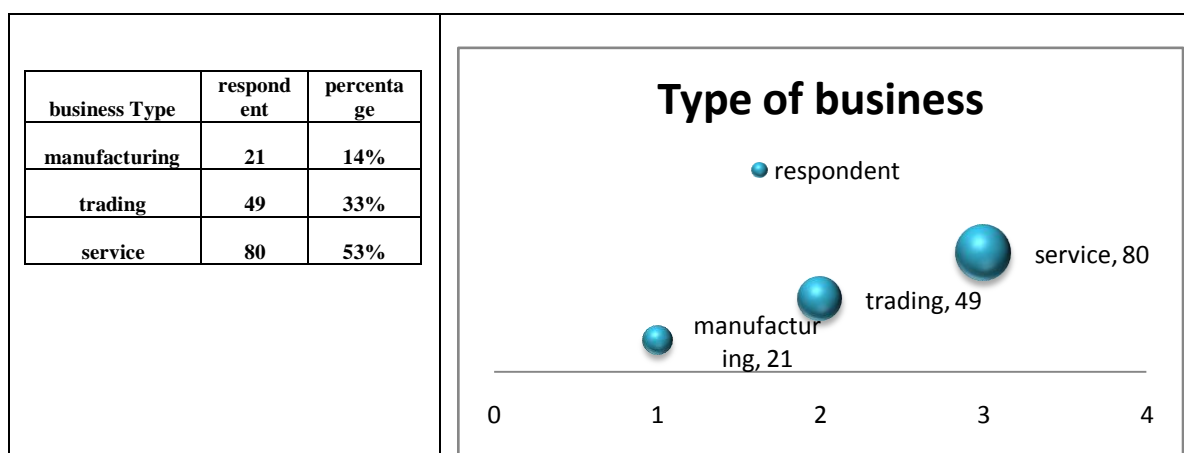
**Table and Graph -1**  
**Age group of scheduled caste entrepreneurs in Kolhapur**



**Table and Graph -2**  
**Education level of scheduled caste entrepreneurs in Kolhapur**



**Table and Graph -3**  
**Type of business of scheduled caste entrepreneurs in Kolhapur**



**Table and Graph -4**

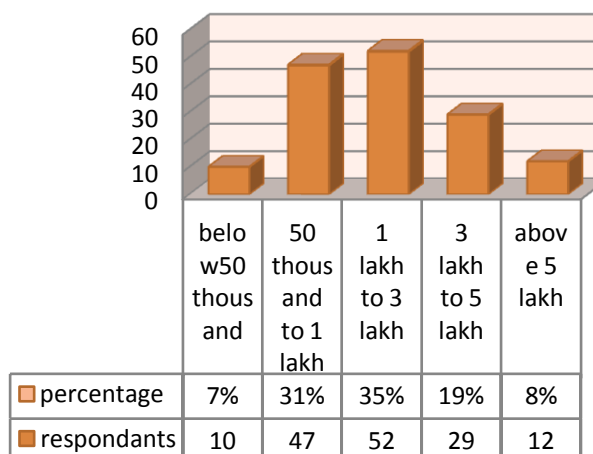
## Annual Income of scheduled caste entrepreneurs in Kolhapur

Table and Graph -5

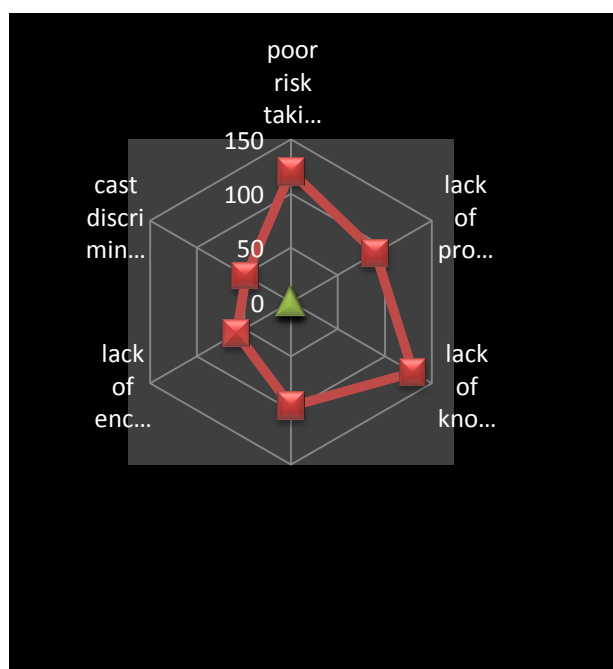
### Socio-Economic problems of scheduled caste entrepreneurs in Kolhapur

Annual income	respondents	percentage
below 50 thousand	10	7%
50 thousand to 1 lakh	47	31%
1 lakh to 3 lakh	52	35%
3 lakh to 5 lakh	29	19%
above 5 lakh	12	8%

Annual Income



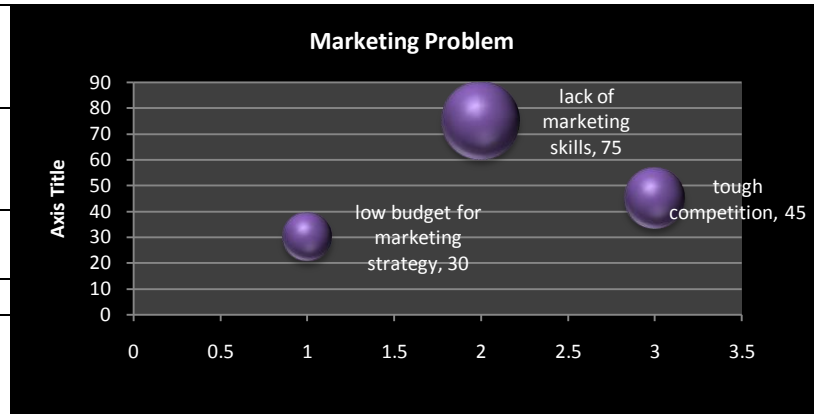
socio-Economic problems	respondent	percentage
poor risk taking ability	120	80%
lack of proper training	90	60%
lack of knowledge	130	86.66%
lack of confidence	96	64%
lack of encouragement from society	58	39%
cast discrimination	48	32%



**Table and Graph -6**

**Marketing Problem faced scheduled caste entrepreneurs in Kolhapur**

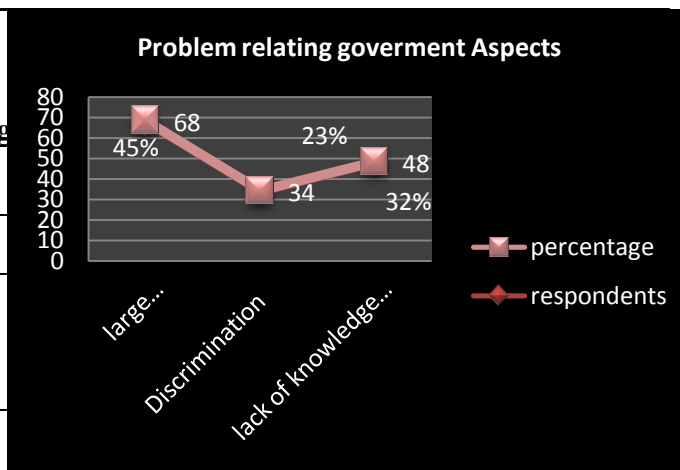
reasons of marketing problem	respondents	percentage
low budget for marketing strategy	30	20%
lack of marketing skills	75	50%
tough competition	45	30%



**Table and Graph -7**

**Problems relating government aspects faced scheduled caste entrepreneurs in Kolhapur**

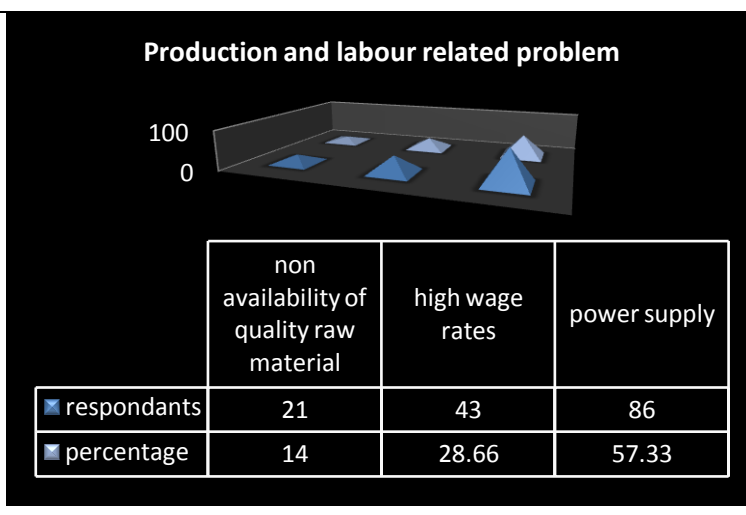
problems relating government aspects	respondents	percentage
large documentation	68	45%
Discrimination	34	23%
lack of knowledge of government policy	48	32%



**Table and Graph -8**

**Production and labour related problems faced scheduled caste entrepreneurs in Kolhapur**

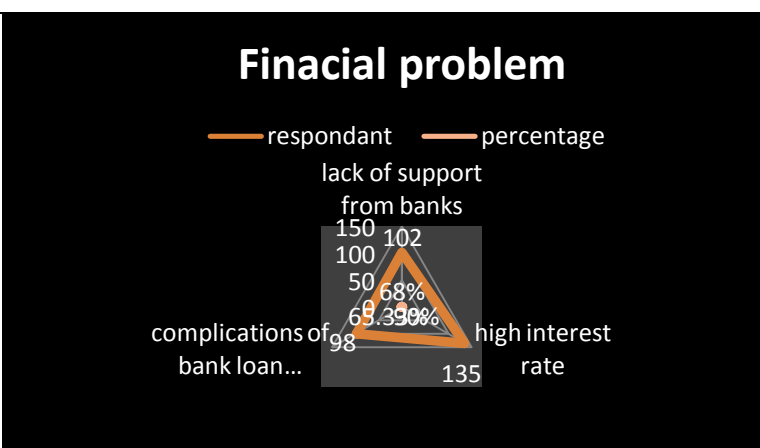
production and labour related problems	respondants	percentage
non availability of quality raw material	21	14
high wage rates	43	28.66
power supply	86	57.33



**Table and Graph -9**

### **Financial problems faced scheduled caste entrepreneurs in Kolhapur**

financial problems	respondent	percentage
lack of support from banks	102	68%
high interest rate	135	90%
complications of bank loan repayment	98	65.33%



#### **Findings:**

1. Table number1show that 23% of respondents are in the age group of 20-30 years. 27% of respondents are between 31 and 40 years of age and the majority of 33% of respondents are between 41 and 50 years of age. The remaining 17% of respondents are between the ages of 51 and 60.
2. Table Number 2 shows that 3% of the respondents are illiterate. 25% of entrepreneurs have education up to SSC. The education of 26% of the respondents is up to HSC and the education of 27% of the entrepreneurs is graduate and the education of 12% of the respondents is post graduate.
3. Table No.3shows that 14% of respondents are involved in the manufacturing business. 33% of respondents are involved in trade. And 53% of respondents are doing business in the service.
4. Table Number 4 shows that 7% of entrepreneurs have an income below Rs. 50,000. 31% of entrepreneurs earn between Rs 50,000 and Rs 1 lakh. The income of 35% of entrepreneurs is between 1 lakh to 3 lakh and the income of 19% of entrepreneurs is between 3 lakh to 5 lakh. The income of the remaining 8% of entrepreneurs is above Rs 5 lakh.
5. Table No 5An analysis of socio-economic issues found that 80% of entrepreneurs lack risk taking ability. And 60% of entrepreneurs do not have proper training. Respondents responded that 86.66% of the respondents lacked knowledge and 64% of the respondents lacked confidence.
6. Table No 6From the above analysis it is found that 20% of the marketing issues are low budget marketing strategy. 50% of people have low marketing skills and 30% of entrepreneurs have tough competition.



7. Table No 7 Analyzing the issues related to government aspects, the researcher found that the problem of large documentation was found in 45% of the entrepreneurs and 23% of the entrepreneurs experienced discrimination. 32% of entrepreneurs did not know about government assistance.

8. Table no 8 Analysis of production and labor related issues showed that 14% of entrepreneurs experienced unavailability of quality raw materials, 28.66% experienced high wage rates and 57.33% experienced power outages while working.

9. Table No 9 shows that 68% of entrepreneurs felt that the bank lacked support. 90% of entrepreneurs said that Rate of interest was high. And 65.33% thought the repayment process was complicated.

### **Suggestion**

It is observed that 33% of respondents are between 41 and 50 years of age. So government should target this age group for the development of their business government should make plans for their business improvement. it is observed that 27% of the entrepreneurs is graduate government should provide the skill-based course as well as teach them marketing strategy. it is observed that 35% of entrepreneurs are between 1 lakh to 3 lakh income government should be supporting them for improving their income level. it is observed that 86.66% of the respondents lacked knowledge of the new idea of business government should develop program awareness about government policy also government should develop a workshop for improving their confidence level and risk-taking ability

it is observed that scheduled cast entrepreneurs facing issues related to government aspects, the problem of large documentation for government program government should reduce documentation also government should provide 24 hour power supply with minimum charges. it is observed that 90 % of respondent said that bank rate of interest is very high and bank loan process is very complicated government should provide fund for development of SC entrepreneurs and bank should reduce interest rate and complicated process

### **Conclusion:**

Studies have shown that the number of Scheduled Caste entrepreneurs in India is increasing positively. SC entrepreneurs have many characteristics like innovation, risk taking, good manager. Scheduled Caste Entrepreneurs have to face many problems. He has to deal with all the social, economic, family, political issues and do business for his livelihood. One thing that is noticeable among the Scheduled Caste entrepreneurs is that their industries are very small in size as they do not have access to capital. And the bank does not lend without a mortgage. The Government is making efforts to increase the participation of Scheduled Castes in economic activities. Political apathy is one of the major obstacles in the way. The support of governmental and non-governmental organizations is needed to promote and motivate Scheduled Caste Entrepreneurs. In order to develop the country, it is necessary to increase the participation of the underprivileged in India. If equal opportunities are provided to men and women of all castes and religions in the country, no one in the country will remain below the poverty line

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**‘The Spice Of Life In Conflict’— A Peregrination Tracing Life’s  
Conundrum and The Repercussion Of The Scars Of Childhood  
In Adult Relationship as Seen in Toni Morrison’s Jazz**

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**Abstract**

The focus of this paper will be on a travel to trace the stereoscopic scrutiny of the people who lacks comfortable living during their childhood. The pangs and angst of their psychological imbalance reflects their adult relationship too. This analysis is not strictly textual, nor will the concern be what the novel or the author, in this case ‘the spice of life in conflict,’ has done or not done. Rather, the interest of this paper, the comatose acceptance, while writing or reading, of “things as they are... here is the ‘literature’ as a location with clear and defined boundaries, embodying liberal values of ‘truth’... is no longer a position one can unquestionably accept” (Said 241). It would be commonplace to note that literature and fiction are actively involved in constructing / contesting sociologically/psychologically.

(**Keywords:** sense of loss, pain of separation, lack of parental care, psychological imbalance)

In recent times, it has been applied to a number of psychological pangs and angst such as sense of loss, the pain of separation and disorientation makes Toni Morrison, a premier American novelist, chronicles the African American experience through one of her novels *Jazz* (2001) has taken for analysis. Her work has won national and international acclaim and has been translated into 14 languages. Her writing has been described as lyrical and she has been applauded for ‘writing prose with the luster of poetry.’

This *Jazz* begins with the novels epigraph. The passage from “The Thunder: Perfect Mind” one of the texts in the collection known as *The Nag Hammadi Library*, juxtaposes orality “the name of the sound” and inscription “the sign of the letter.” Like *Jazz* “Thunder” is a “revelation discourse” narrated by a presumably female figure who combines both genders “I am the bride and the bridegroom” and who transcends worldly limitations (Mac Rae 295, 296). Like Morrison’s narrator, the narrator of “Thunder” is contradictory: “I am strength and I am fear”, “I am the union and the dissolution.” Both narrators both known and do not know “For I am knowledge and ignorance”, are self-deprecatory and accusatory “I am shame and boldness,” are sympathetic and antagonistic “I am compassionate and I am cruel”, and are present and absent “On the day when I (am far away) from you, ( I am close) to you”. Both speak words that can be heard but not fully comprehended: “I am the hearing that is attainable to everyone and the speech which cannot be grasped”. This paper discusses the process of acquiring a voice through a revaluation of a sense of familial loss in narratives voices who interrogates life’s conundrum and how the childhood scars affects the adulthood too in the novel *Jazz*. One shall use this primary text about the psychological derangement made the characters feel sick which they are facing for years — to have Valmiki’s concept of Yeatsian history: “You cannot draw lines and compartments, ... you have to maintain a fine balance between hope and despair” (Mistry, 231). *Jazz* shows, step by inevitable step, just how this process evolves, creating a vibrant portrait of a family in transition. Towards the fag end of the novel, she exclaims again, as rightly go with the view of Mistry’s *A Fine Balance*; “There is always hope – hope enough to balance our despair or we would be lost” (503).

The absence of a strong parental presence in *Jazz*, ties together many of Morrison’s Characters and connects their shared sadness to one cause. Raised by aunts, grand parents and adoptive parents, Violet, Joe and Dorcas all experience a feeling of displacement, and feel that they are handed over with no control. Unable to control the fact that they are Orphans and placed in homes without any choice in the matter, characters are relocated in a way that resonates with the paternalistic adoption of slaves. Their true parents would be the tie to a history and would provide and identity for the characters. Thus, the lack of parental care creates the characters sense of displacement and their obsessive desire to find a stable and complete identity. Joe Trace, the protagonist of this novel is a kind-hearted and fundamentally good natured person, who is driven by sadness mainly because of the betrayal of his lover and forced himself to kill her finally. Like his wife, Violet, Joe’s suffering is mainly rooted from his unstable and painful childhood. When a younger Joe asks Rhode (his adopted mother) about his parents she replies “O honey, they disappeared without a trace” (124). Joe misinterprets the comment and changes his last name and from that moment itself he identifies himself as “the Joe Trace”.

A feeling of abandonment and an uncertainty about his identity plagues Joe from that moment on. Joe, therefore does not know where he comes from and thinks, mistakenly, that his trace was identified with the information which was given by his adopted parents. With that happiness, he is looking forward for the comment from others to make him whole that he is not an abandon child. He is highly regarded in the Harlem community for being a decent man and they accepted him whole heartedly even though he is from rural roots. He treats Violet comfortably but feels something lagging in their relationship and when she becomes depressed, he cannot maintain a sense of completion to be a successful husband. He still looks for a woman to fill the gap which his wife creates. So he runs after his lover, Dorcas, who resembles his mother 'Wild'. When Dorcas Scorns him, his pain is compounded by a deeper anguish as he watches the third women in his life abandoning him. Therefore, Joe's suffering explodes into an act of violence in his murder of Dorcas. Joe will continue to search for a woman who can serve to replace his own mother. Tough and lonely, Violet, is an eccentric woman whose years of accumulated hardship finally catch up with her at the age of 56. Violet was raised by her mother, Rose Dear, in Vienna, Virginia, as one of the five children. Her father left the family for long stretches of time and when the family's belongings were repossessed, Rose Dear jumped in the well and died. Violet, driven almost to insanity by her mother's suicide, is haunted by the image of a well — "The well sucked her sleep" (102) — and is even "scare[d]" by "deep holes" (223). For her the thought of the well is a powerful lure, with its "limitless beckoning" (101) and its "pull" (104).

When violet married Joe Trace, she thought to escape the hard-knocks lifestyle of her childhood by moving to the city, neither she nor Joe had wanted children, but as Violet grows older, she begins to feel a deep longing for something to love. Her relationship with Joe becomes strained when she falls into depression. When she finds out that Joe has cheated her, Violet projects all of her anger, sadness and frustration by slashing Dorcas's face at her funeral as she lies in her open casket. In the months that follow, Violet longs for peace and to heal herself and tries to restore her ruined marital life, discovering finally, that she has to "make it" by taking ownership of her happiness and refusing to be a victim. Violet has re-found herself at the end of the novel, she tells Felice, "What's the world for if you can't make it up the way you want it?" (208). As with Joe and Violet, Morrison recounts the pivotal events in Dorcas's life that shaped her personality, making her more sympathetic than she would at first appear. As a young girl, Dorcas lost both her parents in the same day. Her father was killed by a streetcar and her mother died in a burning building during the East St. Louis riots, which left her as orphan and homeless. Dorcas migrated to the city where her life was to be rebuilt by the obsessive care of her aunt, Alice Manfred. However, as a teenager, Dorcas begins to rebel against her aunt's old-fashioned tastes, and refashions herself as a sexually-desirable woman. Dorcas wants to be looked at and admired. She successfully captures the older man's gaze, Joe. The morality of sleeping with a married man who is old enough to be her father does not factor into Dorcas's decision to be with Joe. She falls for his gifts that he brings her and she becomes petulant and moody when she realizes that Joe is completely malleable so she feels bad to continue her relation with him. Her new boy friend, Acton, promises to shape her with good manners and change her identity to be the best one among others. When she admired his promises she allows him to change her. At that stand point, the admiration of Dorcas falls on Acton.

She finds that she is happier with Acton because he takes an interest in her appearance and personality and is more critical than Joe. Dorcas feels satisfied and happy with Acton. She hopes that Joe will see her and understand that she is happy and that she is not Joe's anymore. On seeing Dorcas, Things turned topsy-turvy. Joe feels irritated and with his utmost rage he shoots her and she dies.

Another forbidden son in this novel is Golden Gray, the interracial son of Vera Louise Gray and Henry Les Troy. Golden Gray is the outcome of a forbidden love between a white woman and black man. With his golden curls and fair skin, Golden Gray looks completely fair and he is raised to believe that he is from a white background. His mother does not claim him as her own, but says that he was adopted. He takes after his mother just as his father was absent from his childhood. Morrison emphasizes the physical absence of the father, almost suggesting that Golden Gray is the direct product of his mother's regeneration. However, Vera Louise has led Golden Gray to believe that he is an orphan, thereby she denies her own claim as his biological mother. In a way, her lie is another kind of abandonment; she could have easily explained about Golden's missing father without obscuring her own relation to the child. Thus, the estrangement between parents and children is passed down from generation to generation and the same fissures are created anew. The theme of abandonment and torn families takes on a more universal relevance when the narrator describes the Gray's response to their daughter's scandalous pregnancy. Her father slaps her and his rejection of her deeply injures Vera Louise, there by making the theme of absence, negligence, and

invisible father applicable to both white and black characters. Vera Louise's mother abandons her as soon as she comes to know about her daughters' scandalous activity, "so full of repulsion the daughter could taste the sour saliva gathering under her mother's tongue, filling the insides of her cheeks" (141). While mother's often seem to be the antidote to the emptiness and suffering experienced by many of the characters (both Alice Manfred and Dorcas cry the word "mama" involuntarily), the bond between mothers and daughters is also a tenuous one, fraught with anger.

In all the foregoing characters there is something unique and common that the love of the mother and the father cannot be replaced and reciprocated by any other means under the sun. No human being can adequately fulfill this love which a child enjoys from its parents. Morrison has successfully convinced her readers that the supremacy of parental love and affection cannot be replaced. Throughout Morrison's fiction, her characters are caught in the endless flux. In their multiple quests for viable identities, they must negotiate within their explorations into their roles and identities are skewed because that pervasive and unyielding polarity leads to the displacement of additional polarities vividly captures life's conundrum and the scars of childhood affects the adulthood too. Her characters have trouble developing fulfilled selves because they lack adequate relationships with one or more others, such as parents, spouse, family, neighbourhood, community, and / or society.

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## Empowerment of Transgender Community and Government Policies

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### Abstract:

Transgender community is an integral part of Indian society since ancient time. They were discriminated against and excluded from the mainstream society. References of elite status of transgender community can be traces in Indian scriptures including Vedas, Ramayana, Mahabharata, Kama Sutra and Manu Smriti. They were treated as integral part of the contemporary society. The community has gone through different phases facing variety of issues. In early period different policies were made to exclude them from the society. In modern time government has promoted many policies for their empowerment. Many committees were formed to study issues faced by transgender individual. Present paper aims at discussing these policies and provisions enshrined for Transgender community. It emphasizes the role of government in empowering any marginalized community like transgender.

**Keywords:** transgender, government policies, provisions, empowerment, justice

Transgender community has been part of Indian society since ancient time. Transgender people have existed in all eras, in every race, class, religion and cultures. In India they are refer to as *Hijra*, *Kinner*, *Jogappa*, *Aruvani* or *Arvani*, *Thirunangai*, *Shiv-Shakthi* and *Chakka*. Most of these terms have some kind of derogatory meanings. However, in Indian mythology transgender are described as people having religious significance. Historically they are respected and many believe that the blessings of *Hijra* come true. Laxmi Narayan Tripathi and A. Revathi narrate this story from the Ramayana in their autobiographies. As Laxmi narrates, "Lord Rama was moved by the penance of *hijras*. He granted them a boon: their blessings and their curses would come true." (49). Till today, their presence at marriage, child birth, naming ceremony and other religious ceremonies is considered to be auspicious and symbol of good luck. The ancient Indian writings are full of evidences of recurring idea of '*tritiyaprakriti*'. In Vedic literature we find traces to categorization of gender based on nature or '*prakriti*'. They are –male (*pums-prakriti*), female (*stri-prakriti*) and third sex (*tritiyaprakriti*). The term 'sex' refers to a person's biological aspects. On the other hand 'gender' is socially constructed in reference to aspects like behaviour, role, and expressions. Here nature or '*prakriti*' considers entire being and implies both physical characteristics and psychological behaviour. During Vedic period, society was all-inclusive. Each and every individual was treated as integral part of the society. Regardless their nature or *prakriti* all were accommodated in the greater whole society. 'Third-gender citizens were neither persecuted nor denied basic rights. They were allowed to keep their own society or town quarters, live together within marriage and engage in all means of livelihood' ('Tritiya-Prakriti: People of the Third Sex (1)').

References of elite status of transgender community can be traces in Indian scriptures including Vedas, Ramayana, Mahabharata, Kama Sutra and Manu Smriti. They are treated as integral part of the society in Vedic society. Transgender people enjoyed very respectable position during the Delhi Sultanate and Mughal Empire. They were faithfully serving to the crown and also political advisor of the emperor. They served as household servants as well as military commanders. Moreover, they assisted the royal women and were guardian of their harem. For their service transgender people received some amount that made them economically stable. However, in modern period, there are so many controversies regarding the rights and position of transgender community. Transgender people are feared as harmful and marginalized in the society. They are denied all the basic rights and privileges that every other 'straight' person enjoys. The demise of transgender community began with the British rule in India. During colonized period in India, British authorities adopted many strategies that abolished transgender community from mainstream society. In 1860, Section 377 of Indian Penal Code empowered colonizers to litigate *hijras*. Later in 1871, British adopted the Criminal Tribes Act, which criminalized transgender community. As per this act, a transgender individual could be fined with up to two years' imprisonment for appearing as a woman in public. This act was abolished after independence in 1949 but it left the transgender community with dreadful memories. In 2014 the Supreme Court passed a landmark judgement in favour of transgender community. The National Legal Services Authority (NALSA) v Union of India case directed the government to legally recognize a person who does not fall under male –female gender binary as 'third gender'. This progressive judgment extended reservation to the transgender community in employment as

well as in education. It enabled a transgender individuals to decide their gender. While interpreting the 'dignity' under Article 21, the court included one's gender identity within the structure of the fundamental right to dignity under Article 21. Soon after the NALSA judgement, the Rights of Transgender Persons Bill 2014 was introduced in Rajya Sabha to eradicate the discrimination against transgender community. It included many progressive provisions including 2% reservation of seats in primary, secondary and higher education institutions funded by the government, and in government jobs, formation of special employment exchange for transgender people, the formation of national and state-levels commission for transgender people, the formation of special transgender rights courts, the right of a transgender child to a home and imposes conditions for foster care, the offenses and penalties. It also included penalty of 1 year imprisonment with fine for hate speech against transgender people. ("The Rights of Transgender Persons Bill, 2014"). As per the 2011 census, there are total 4, 87,803 transgender persons in India. ("TransGender/Others - Census 2011 India"). Though they are large in number in Indian society, they face number of issues in their life. They are abandoned by both their family and society. They are prevented from any kind of social and cultural participation. They have very restricted access to education, health services and public places. They still have to struggle to obtain identity documents like Passport, Voting Identity card, Ration Card or Adhar Card. However, the Fundamental Rights enshrined in the Indian Constitution have provisions in favour of transgender community. Article 14 to 18 of the Constitution states the Fundamental rights and prevent discrimination against any person based on various grounds. It also ensures freedom, justice and dignity to each and every individual in the country. It emphasizes to provide an inclusive society for the people of India including all the minority communities.

Following are the important provision in context of Rights of Transgender community:

**Article 14** - The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India, on grounds of religion, race, caste, sex or place of birth.

**Article 15** - The State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them.

**Article 19** - All citizens shall have the right to (i) freedom of speech and expression; (ii) assemble peaceably and without arms; (iii) reside and settle in any part of the territory of India; and (iv) practise any profession, or to carry on any occupation, trade or business, etc.

**Article 21** - No person shall be deprived of his life or personal liberty except according to procedure established by law. (Chakrapani and Narrain).

Both at Central and State level government is taking efforts to promote equality and justice for Transgender community. States like Karnataka and Tamil Nadu have implemented many progressive policies to eradicate problems faced by Transgender people and to give them justice. 'The C.S. Dwarakanath Backward Classes Commission Report of 2010, recommended to the Government of Karnataka to include the sexual minorities called Hijras, Kothis, Jogappa, Female to Male [Transgender people], Mangalamukhis, and Transgenders in the Category of the Backward Classes to enable them to enjoy Government benefits. Tamil Nadu Transgender Welfare Board (TGWB) was formed which addresses the social protection needs of Transgenders' including income assistance, housing, education, employment, health care besides giving access to various existing schemes.' (Chakrapani and Narrain). The People's Union for Civil Liberties (PUCL) Report recommends that "Civil rights under law such as the right to get a passport, ration card, make a will, inherit property and adopt children must be available to all regardless of change in gender/sex identities". Recently central government has launched two schemes for welfare of transgender community. On 12 February 2022, Union Minister for Social Justice and empowerment Virendra Kumar launched scheme 'SMILE: Support for Marginalised Individuals for Livelihood and Enterprise'. This scheme aims to provide welfare and rehabilitation to the transgender community and the people earning their livelihood by begging. The Ministry has allocated 365 crore to provide transgender community with medical care, education, occupational opportunities and shelter. The Twelfth Five Year Plan (2012 -17) also proposed the empowerment of transgender community by providing them support for education, health services, employment opportunities, skills development through financial assistance. 'The Ministry of Social Justice and Empowerment along with the Ministry of Statistics and Programme Implementation will determine the number of Transgender persons in India, map their socio-economic status in order to create a law to protect interests of the Community and improve their living conditions.' ("Twelfth Five Year Plan (2012-2017)"). The Ministry of Social Justice and Empowerment constituted an Expert Committee to study discrimination and problems faced by transgender people in India. This committee submitted its report on 27 January 2014 and made recommendations for social, economic and educational empowerment of transgender community.

The recommendations of the Expert committee includes definition of 'Transgender', Constitutional Provisions protecting rights of transgender person, acceptance of transgender as 'third gender', inclusive and Convergence approach. Under inclusive approach the Committee has recommended the government to adopt all-embarrassing approach to mainstream the transgender community. It also suggest both the Central and State government to take into consideration transgender community while making any policy, launching any programme or schemes. It also recommended that to seek convergence with central and other State Ministries to focus more on welfare of the transgender community.

The committee also emphasized on the sensitization of issues of transgender people through providing free legal aids, Criminal and Disciplinary actions for violation of their dignity, inclusion of transgender community in laws such as sexual assault and domestic violence. The main obstacle in the empowerment of transgender community is their restricted access to education and health services. School, colleges and the entire education system need to play supportive role to make it more inclusive. Certain steps should be taken to avail them employment so they will not get indulge in begging or sex work. For this purpose the committee recommends establishment of Helpline for Career guidance, online placement support, Capacity Building and Entrepreneurship Development etc. Access to proper health care will also play important role in their empowerment. As per the Committee's recommendations every hospital be it private or public have inclusive policies to sensitize health issues of transgender people. The most awaited 'Transgender Persons (Protection of Rights) Act, 2019' came into effect on 10<sup>th</sup> January 2020. This is the most concrete step towards the empowerment of transgender persons. This act prohibits any kind of discrimination against transgender individual in the fields of education, health services, employment, holding any public or private office. It also gives right to a transgender individual to hold or dispose property. Transgender people are now empowered to have access to public services and other benefits available for Indian citizen. AS per this act a transgender person can get his certificate of identity indicating the gender as 'transgender'. This act recommends to establish **National Council for Transgender persons (NCT)**. **This council will advise Union government on the issues of transgender community. It will also examine the impact of government policies, legislation and projects launched by Central or State government concerning transgender community. It will also help to redress the grievances of transgender community.** All the above mentioned policies and provisions are ray of hope for the transgender community. Once the community was completely excluded from the mainstream society but little by little scenario is changing. The most important thing to empower the transgender community is to sensitize the family and society on the issues and discrimination against transgender community. Government policies may help to make this awareness by creating inclusive environment at different level. Still there are many problematic provisions such as definition of 'discrimination'. They need to be resolved as soon as possible to make our society more inclusive for them and accept them as 'human being' like other individuals in the society. For their empowerment they need be ensure freedom equality, justice and above all dignity.

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# Mapping and Assessment of Changing Vegetation Cover in Pune Division (Maharashtra)

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## Abstract

Vegetation is vital part of land cover who contributes to ecosystem in many ways. The most important parameter to retrieve the change in vegetation cover is mapping of vegetation cover. Pune division has complex topography, concentration of urban environment, human activities encroachment, road construction, increasing population which lead to change in vegetation cover. The research aims to examine changing vegetation cover in Pune division during 1998 to 2019. To analysis changing vegetation cover Normalized Difference Vegetation Index (NDVI) method and Landsat satellite images (TM, ETM+, TIRS sensor) is used. For the calculation of NDVI 0.20 value is used. The finding indicates that since last two decades 7870.19 sq.km. vegetation cover wipes out from Pune division. The study reveals that alarming change in vegetation cover of Pune division.

**Key Words:** Ecosystem, Encroachment, NDVI, Sensor

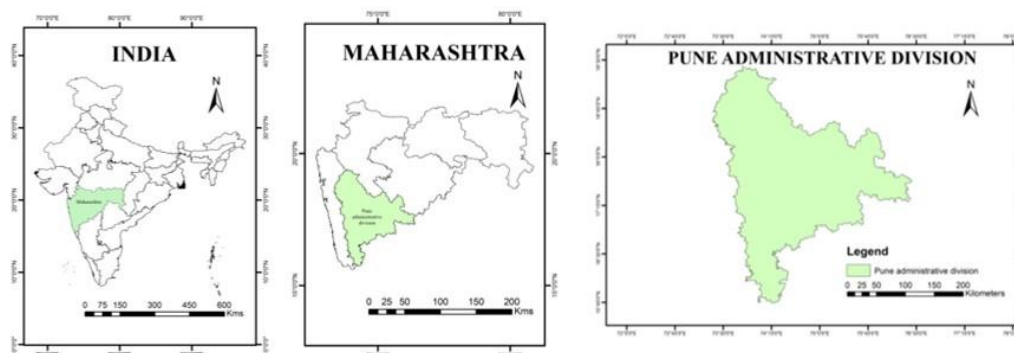
## Introduction

Remote sensing and GIS are now providing new tools for advance ecosystem management. It is possible to get more information from multi-date and multi-spectral data due to development of remote sensing, which provide effective methods to study the land cover and land use. The land cover pattern of a region is an outcome of natural and socio-economic factor and their utilization by man. With the influence of complicated topography of Deccan plateau, Sahyadri ranges, South-West Monsoon and increasing urban environment, the change in vegetation of Pune division is typical and representative in Western Maharashtra region. Since 1998, the division faced meteorological, hydrological, vegetation drought for nine times. No matter physical or cultivated vegetation, their growth processes are all affected by temperature, precipitation etc. (Li et al., 2000, Zhang et al., 2003, Nicholson et al., 1990, Schmidt et al., 2000) and the normalized difference vegetation index (NDVI) is the most widely used surrogate for large-scale assessments of vegetation greenness and has been applied in wide range of studies (Brandt et al. 2015, Chen et al. 1998; Santos and Negri, 1997; Zhang et al. 2009). Therefore, the present research paper is an attempt assessment and mapping of changing vegetation cover in Pune division, Maharashtra through GIS.

## Study Area

Pune division located at the western part of Maharashtra state of India. The extension of Pune division is  $15^{\circ}44'30''$  to  $19^{\circ}24'7''$  North latitude and  $73^{\circ}20'52''$  to  $76^{\circ}25'23''$  East longitude. The area of Pune division is 57090.97 sq.km. The average height of the study area is 560 mts above mean sea level. Pune division includes six administrative division namely Pune, Satara, Sangli, Solapur, Kolhapur.

**Figure1: Location Map of Pune Division**



**Source: Compiled by author based on SOI Toposheet**

The region may be divided into four physiographic divisions i.e., the Western hilly region, the Central undulating region, the Eastern highland plateau region & river basins of Bhima & Krishna. The climate of the region is essentially of a tropical monsoon type. There are many river basins such as Mula-Mutha, Krishna, Panchganga, Bhima. The region is diversifiable with plateau such as Saswad (Pune

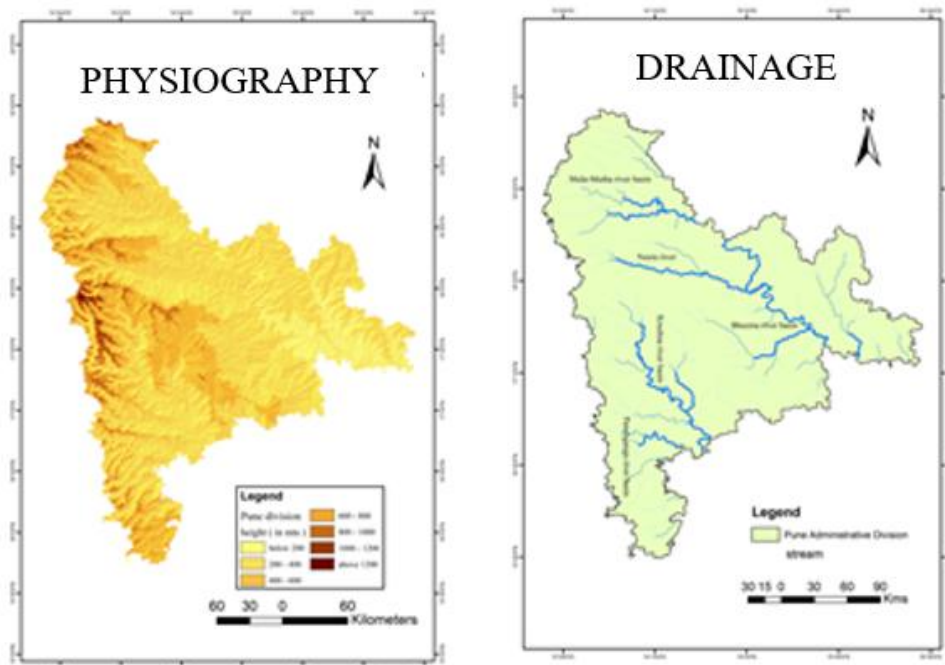
district), Aundh (Satara district), Pachgani (Satara district), Khanapur(Sangli district). Ridges like Harishchandra, Ambala (Pune), Mahadev (Satara), Chokodi (Kolhapur), Aashta(Sangli), Balaghat(Solapur). It makes region with physiographic importance. The total population of the region according to census 2011 was 1,99,97,778 persons.

### Objective

Objectives of the research paper are as follows:

1. To detect and quantify vegetation cover of Pune division.
2. To analyze changes in vegetation cover of Pune division.

**Figure 2: Physiography and Drainage System of Pune Division**



**Source: Compiled by author based on Landsat Data**

### Database and Methodology

This research work is mainly based on the secondary data. The data requiring for vegetation cover mapping is collected from Landsat 5, Landsat 7 series and Landsat 8 series. To collect Landsat data USGS earth explorer website is used. It is also important that, the shape file and the boundary taken from Google earth software. For the calculation of the distribution of vegetation in study area Normalized Difference Vegetation Index (NDVI) is used. NDVI is simple numerical indicator that can be used to analyze the remote sensing measurement, from a remote platform and assess whether the target or object being observed contains live green vegetation or not.

$$NDVI = (NIR - R) / (NIR + R)$$

NIR is the reflectance in the Near Infrared Band (760-900nm), which is strongly reflected by leaf cellular structures; while R is the reflectance in the Red Band (630-690nm) which is characterized by chlorophyll content absorption at the canopy. The NDVI algorithm takes advantage of the fact that green vegetation reflects less visible light and more NIR, while sparse or less green vegetation reflects a greater portion of the visible and less NIR. NDVI threshold value is an applied method according to vegetation characteristic and 0.20 NDVI threshold value is used for mapping of vegetation cover in the research paper.

**Table 1: Specification of Sensors of Landsat Series**

<b>Band</b>	<b>Wavelength (in mm)</b>	<b>Resolution (in m)</b>
<b>Sensor of Landsat 5 Thematic Mapper (TM)</b>		
Band-3 Red	0.63 - 0.69	30
Band-4 NIR	0.76 - 0.90	30
<b>Sensor of Landsat 7 Enhanced Thematic Mapper Plus (ETM+)</b>		
Band-3 Red	0.63 - 0.69	30
Band-4 NIR	0.77 - 0.90	30
<b>Sensor of Landsat 8 Operational Land Imager(OLI) and Thermal Infrared Sensor(TIRS)</b>		
Band-4 Red	0.636 - 0.673	30
Band-5 NIR	0.851-0.879	30

**Source: Compiled through USGS Earth Explorer Handbook**

## ANALYSIS

According to NDVI value of year 1998-99, 32.14 per cent of Pune division is covered with vegetation. The western boundary of the region has luxuriant place for vegetation growth. The Sahyadri range and Krishna river basin is covered with more vegetation cover. River basin of Mula-Mutha and bank of Neerariver has enough vegetation cover. In contrary, the rain shadow area of Satara and middle part of Krishna, Bhima river basin has thin vegetation growth. A part of Kolhapur district shows highest NDVI follows by Satara, Pune, Sangli, Solapur. In the year 2008-09, 21.13 per cent of the region is covered with vegetation. There has been drastic decrease in dense vegetation during 1998 to 2019. In this year, western the region has compact with vegetation but density of vegetation cover is decreased. The vegetation-cover in Krishna river basin and Mula-Mutha river basin is constant. Solapur, Sangli have dearth vegetation cover constantly. The hilly region of ShambhuMahadeo has shown least vegetation cover. According to NDVI 2018-19, 10483.08 sq.km areas out of total area of Pune division have covered with vegetation. This is only 18.36per cent compare to the area of Pune division. Vegetation cover in study region is decreasing rapidly. In the ten years' interval 2009 to 2019, 2.77per cent of vegetation cover is converted into other land cover and land use pattern.

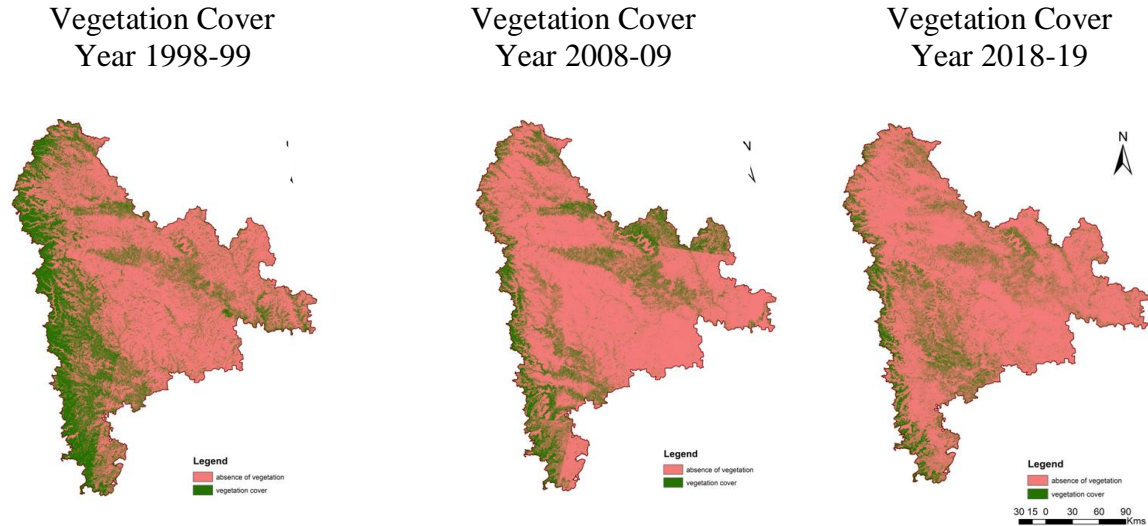
**Table 2: Distribution of Vegetation Cover in Pune Division**

<b>Year</b>	<b>Vegetation cover (in Sq.Km)</b>	<b>Percentage of vegetation cover to total area of region</b>	<b>Change in percentage</b>
<b>1998-99</b>	18353.50	32.14	ND
<b>2008-09</b>	12066.06	21.13	- 11.01
<b>2018-19</b>	10483.66	18.36	- 2.77

**Source: Compiled by author based on Landsat Data**

The western boundary of Pune division only has ample heavy vegetation cover. An exception of western boundary, all area of study region has rarified vegetation cover. Vegetation situation in the year 1998-99 is better than following twenty years. The north south extended Sahyadri range shows the downward graph of vegetation cover. Kolhapur and Satara districts have more vegetation cover than Sangli and Pune in twenty years. Solapur district has minimum vegetation cover throughout the study time.

**Figure 3: Vegetation cover map of Pune Division**



**Source: Compiled by author based on Landsat Data**

### Conclusion

It is found that, the NDVI value reaches maximum in the year 1998-99 and minimum in the year 2018-19. Kolhapur district region has maximum vegetation cover through the study period. Solapur district region shows minimum vegetation cover constantly. Vegetation cover in the study area is slump by 13.78 per cent in last twenty years. Vegetation cover is decreased by 7870.5 sq.km and decreasing rate of vegetation cover in Pune division is a subject of unsettling.

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# Gloria Naylor's *The Men of Brewster Place*: A Steoreoscopic Analysis of 'His' story

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## Abstract

The writers of the modern era rightly acknowledge the social discrimination in race, gender, culture, and class, thereby shaping the literary arena. The trauma of post-war experience, and the theme of emergence, power, identity crisis, diaspora, immigration, marginality, hybridity, and sexuality are prominent themes in Post-Colonial literature now-a-days. While most of the African American writers concentrate on sufferings and upliftment of black women, Naylor's interest in defining black men with their vice and virtue in *The Men of Brewster Place* is quite a different approach. Naylor, being a womanist writer, portrays black men as sufferers in equilibrium with the black women. This paper is an attempt to analyse Naylor's question "what does it mean to be a man?" (28 TMBP). Here, the men are in search of their identities, embracing masculinity, and creating their own space. Thus this paper analyses the plight of the African American men in the society.

## Keywords: Masculinity, Identity, Marginalization and Diaspora

Men's studies is a new area of research that portrays men as ordinary human beings rather than the heroes, kings, warriors, scholars, villains and achievers. As there is an ideal image for a woman, there is an ideal image for a man, that is, the caretaker, the protector, and the breadwinner. In order to play that 'designed ideal male role' in the society, he is pressurised, forced, and stressed. Not only women, but also men do face political and social violence, facing a lot of hurdles now-a-days resulting in mental trauma. The canon of African American literature deciphers the experiences, struggles of the black community in their quest for identity. The black men having the wounds of slavery in mind, unable to forget the harsh realities of the past life, crave to get an identity in society. To show their manhood, they struggle hard to hide their insecurities, mental traumas, and their problems. They aspire to reach their dream along with the black women, "But if there was a woman anywhere around him, he had to hope for better 'cause she was the other half: the other arm, the other eye - stepping right up on his shoulders to reach for a dream" (TMBP 8). Naylor's novel *The Men of Brewster Place* is a sequel to her first novel *The Women of Brewster Place*, whereas the former focuses on 'his' story and the later focuses on 'her' story. This paper is an attempt to analyse Naylor's question, "What does it mean to be a man?" (TMBP 28), with reference to some important men characters. Here, Gayatri Chakravorty Spivak's argument, "Can the Subaltern speak?" is taken into account for the voiceless, subjugated black community and the reply, "the subaltern cannot speak because it cannot be heard" suits well for the oppressed black men, who dwelled in the sufferings of slavery.

Ben, the narrator, who is found dead in the previous novel, *The Women of Brewster Place* narrates the story of the pains of black men in this novel. He clearly explains the men's version for being passive in the eyes of his women echoes, "And the ones here, proud most of 'em, pitiful some-but hardworking, all of 'em." (8). The omniscient narrator, Ben knowing all the secrets, tells "the untold story" of the grandfather Jones, the hardworking black man. When Grandpa Jones is twelve years old, he is shocked to witness his little ten years old sister, is raped by a white man. As the girl is badly injured, she is taken to hospital. Nobody could save the life of a little girl and no man has the courage to question the white man. When Grandpa Jones voices out the brutalities of the white community, his mother slaps him and warns, "Boy, Shut your mouth, you hear? Shut your mouth. Be a man" (TMBP 15). From there, Grandpa Jones rightly observes that 'being a man' for the black community is nothing but remaining silent, "to suffer and be still" (TMBP 16). From generation to generation, Ben was taught to be silent. From his childhood days, he yearns to get reverence from his childhood, "one of the things that bothers me the most is that I ain't never been in a situation where anybody ever called me sir" (TMBP 11). He remembered his past days of working as a shoeshine boy, "...hardly a day ever that I didn't get tobacco juice spit on my uniform or in my hair" (TMBP 17). This clearly depicts that the oppressed man has been mocked, disrespected, tortured, whipped, enslaved during colonization and the wounds, and repercussions could not be erased easily from their memories even after getting liberty. Ben's role as 'a man' of Elvira further questions his identity. Elvira, Ben's wife expects him to earn a lot of money and to hold all the responsibilities. When he fails, she rejects to acknowledge him as a 'man'. His crippled little daughter couldn't support her family as she expects. Sometimes she loses her temper, and shouts, "I'm sick of carrying the load for a half-grown woman and a no-count man" (TMBP 22). Even though her daughter complains of her master's misbehaviour, he is incapable of saving his daughter from the sexual abuse that he is like 'a hunk of a

stone' (TMBP 24). Ben pleads his wife not to send her daughter to Mr. Clyde's house, but she shouts, "If you was a half a man, you coulda given me more babies and we woulda had some help workin' this land instead of a half-grown woman we gotta carry the load for. And if you was even a quarter of a man, we wouldn't be a bunch of miserable sharecroppers on someone else's land- but we is, Ben" (TMBP 26). Moreover, she advises him to behave as 'a man'.

Knowing the incapability of her father, the little girl leaves to Memphis, where she can earn a lot, and supports her family. Elvira elopes with another men leaving Ben to dwell in solitude. The lifelong repressive experience and his quest for identity are well portrayed through his words, "I'm fighting for my manhood. There is no way to face my daughter's eyes, even in memory..." (TMBP 28). Thus, Ben from his childhood, struggles to prove his capability and identity as 'the Man', the image of the brave, the creator and the protector. At times, he tries to voice out but he has been muted by the society. Brother Jerome, intellectually disabled child, has the efficacy to play piano well thereby tuning the minds of people. His music tells the hardships and struggles of black men, "The Amen brothers coming from every brick, every piece of concrete and iron railing on Brewster place as Jerome played, filling the street with the sound of a black man's blues..." (TMBP 37), portraying the hardships of African American men, thereby confirming the hegemonical masculinity.

Basil, the only son of Mattie Michael and the irresponsible son in *The Women of Brewster Place*, here in this novel, tries to explain his version. Mattie sells her big house to get a bail for his son, spends all her money to get him out of the case. He promises to earn a lot of money, to buy that home, return it to his mother, and to prove him as 'a worthy son'. He avers, "I was starting to feel like the man I always wanted to be. There I was, for three years, saving two checks each week from the umbrella factory and United Canning Goods while living at the YMCA on my part-time job, flipping hamburgers" (TWBP 43). Unfortunately his mother is found dead, and all his labour and money turned to be ashes before his dead mother. He travelled to Rockvale in search of his father Butch fuller. He identified the similarities of their image, "I stood at the front gate and looked up into a mirror that changed my image into that of a man thirty years my senior" (TMBP 47). Usually woman craves to attain motherhood, as it is a boon to a woman. Here Naylor defines "manhood" and how a man struggles to prove his identity through the character of Butch. Butch Fuller, the father of Basil, annoys about his infertility and Basil is born breaking all the perceptions of the doctors and he is a proof for his 'manhood'. When Mattie is pregnant disproving the doctor's conception, Butch indeed finds it as 'a proud moment' and he wishes to marry her and to have a respectful status in the society. Even though, Basil complains of his irresponsibility to be 'a good father', Butch accepts it with a nod. Basil's search for his identity continues and he declares, "I would be the father I never had; I would act like the man I'd finally grown up to be" (TMBP 46). Basil marries Keisha and becomes father for her two sons. It is not due to the love for Keisha but for the children. He dreams to bring up the children in a cultured manner and to choose their own way. In a fight with Keisha for bringing his boyfriend to his home, he warns her not to spoil the children. Keisha pricks him, "Your kids? They ain't your kids. Since when you man enough to have any kids..." (TMBP 61). He is shocked to see the children going against his dreams after coming back from the prison. He decides to fight back to get the love of the boys.

Born as a poor black boy, C.C. Baker craves to get an identity- money, respect, and power and Naylor tells, "the most important thing in any man's life is self-respect. And how in the hell can you have self-respect if you're sniveling and crying over every loser who gets dumped on and taken out?" (TWBP 125). He joins in a gang and does whatever he is instructed, and acquires wealth and supports his family. Nobody in his family ever questioned him as they are in need of the money. It is rightly observed by Bell Hooks, the renowned African American theorist, "poor or working class man has been hurt- and sometimes hurts others by being unable to live up to dominant definitions of masculinity" (qtd in Kimmell 43). Akin to the previous novel, *The Women of Brewster place*, Naylor, in this novel, *The Men of Brewster Place*, introduces barbershop, where the men meet often. They talk of their grief, joy and daily life happenings and it's a place of relaxation. A customer, named Greasy, commits suicide in the barbershop, that shatters other men and they feel guilty for not saving them. Naylor asserts, "Although a man grieves different from a woman, a whole lot more is kept inside to bite him a little here, a little there, until the blood begins to flow. And when the blood begins to flow, it'll have to fill up every space in his body before you finally see it in his eyes. Men cry as much as women- but most just cry inside" (TWBP 163).

Hence, this paper answers the pertinent questions asked at the beginning of this article, "what does it mean to be a man?" (26 TWBP) and it concludes with unveiling the tapestries of the marginalized African American men folk, who are in search of their self –identity and manhood. Naylor's men, after

much trials and tribulations of the past slavery, find strength to survive, and struggle to have an identity in the society amidst the problems and dejection.

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#### **List of Abbreviation**

TWBP- The Women of Brewster Place

## Spatio-Temporal Assessment of Rainfall Variation in Nanded District

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### Abstract:

Variation in rainfall across time and space is linked to a variety of activities, including agricultural, industrial, hydrological, geo-hydrological, engineering, and energy generation. Rainfall variation is carried out for 16 stations which are spatially well distributed over study region. The rainfall data of respective stations for 31 years is collected and processes as per requirement of study. The statistical analysis is carried out by using IDW (Inverse Distance Weightage) method of Interpolation Technique of Arc GIS software. The variation is analyzed annual, seasonal and monthly time scale. The maps are prepared to display the spatial variation of rainfall in Nanded district.

**Keywords:** Rainfall, Variation, seasons

### Introduction:

Rainfall is amongst the most popular climatic variables to take into account while assessing variability. Especially in subtropical or tropical climates. Climatic variability assessment in equatorial regions Rainfall, temperature, humidity, and other variables cloudiness caused by solar insolation, different use of irradiance can substantially improve one's knowledge of Changes in the climate. Rainfall is a common occurrence. Considered, evaluated, and finally integrated with a knowledge base in agriculture that culminates in a realistic assessment of production, food security, and distribution. In addition, rainfall patterns are erratic. May also cause natural calamities such as floods, fires, and earthquakes. Drought, erosion, landslides, and salinity are all factors to consider. The recording and comprehension of variation Trend analysis throughout time can be quite useful in implementing appropriate adaptation or mitigation strategies. Shinde K.B et.al. (2019), analyzed station wise rainfall distribution and its variation over Latur district.

The variation in rainfall over a place and time is not only related to primary activity i.e. agriculture but also in Hydrology, Geohydrology, Industry, Engineering, electricity generation etc. Change in rainfall has considerable effect on water and agricultural sectors of Asia and Pacific region (Cruze et al 2007). The rainfall variation and frequency is analyzed for Dharmapuri district by Rajaramet. al (2016).

### Objective:

The main objective of this research is to understand the regional and timely variation of rainfall over the district of Nanded.

### Data and Methodology:

Primary and secondary data were employed in this investigation. The major information gathered during the field tour and observations. Secondary data on agricultural and climatic issues was acquired from numerous government reports, documents, and other sources from relevant departments and offices. Websites were used to get the rest of the essential information.

### Rainfall Variation through Coefficient of Variation:

Coefficient of Variation is one of the widely used method to analysis of statistical variation of geographical phenomena over a time. In the present study the rainfall variation is assessed using this method.

$$CV = \sigma / X^- * 100$$

Whereas,

CV= Coefficient of Variation

$\sigma$  = Standard deviation

$X^-$  = Long term mean of data.

### Annual Variation of Rainfall:

The variation of long term average annual rainfall is varies from 21.3% at Jamb (BK) to 48.1% at Sarkhani station. The variation of rainfall is grouped in to three classes i.e. below 30 %, 30 to 40% and 40 and above. There are two stations namely Jamb (BK) and Limboti are observed with 21.1% and 25.5% respectively. It represents less variation than the other region of district, covers Western Loha and Kandhartalukas in the south western part of district. The stations Mukhed, Kandhar, Kinwat, Degloor, Umri, Lohgaon, Nanded, Shivani, Kesrali and Billoli are observed the variation is between 30 to 40%.



These stations covers 60% area over South Kinwat, eastern Himayatnagar, Bhokar, Umri, eastern Loha, Kandhar, Mudkhed, Dharmapuri, Degloor, Naigaon and Billolitalukas. There after Tamsa (41.5%), Bhokar (42.4%), Nanded (43.7), Mahur (45.0%), Malegaon (46.0%) and Sarkhani (48.1%) noticed variation is above 40%. Those stations occupied Mahur, Western Kinwat, Hadgaon, Himayatnagar, northern Bhokar and Ardhapurtalukas of Nanded district. The district observed as the north western and northern part have greater variation than the southern part (Fig. no.02(A)).

#### **Seasonal Rainfall variation:**

The variation of rainfall is also computed for seasonal scale. The seasons are considered as Winter, Pre monsoon, Monsoon and Post monsoon. The figure no.02 (B, C, D and E) shows spatial variation of rainfall over Nanded district.

#### **Winter Rainfall Variation:**

The winter season considered for the month of January and February according to IMD. During the winter season the variation of rainfall is varies from 220.3% to 447.7% at Kinwat and Mahur station respectively. The statistical variation is grouped in to three classes as like below 300, 300-400 and above 400% variation. There are 12 stations seen as variation of rainfall is less than 300%. It covers south, southeast and western part of district. The five stations namely Bhokar, Sarkhani, Shivani, Tamsa and Umri are recorded the variation between 300 to 400% and only Mahur stations observed with variation more than 400%, it is located in the northern most part of district. During the winter season from south to north the variation is increases. The northern part of district is characterized by undulating land.

#### **Pre monsoon Season Variation:**

The pre monsoon season is measured from March to May. The variation of rainfall during this season is varies from 135.3% at Mukhed station to 300.00% at Tamsa station. The variation is grouped in to two groups i.e. below 200 and above 200. There are six stations viz. Billoli, Lohagaon, Mahur, Sarkhani, Shivani and Tamsa recorded rainfall variation above 200% and remaining 12 stations noticed less than 200% variation. These stations are located in south, central and western part of district. The central east, and northern part of district have higher variation.

#### **Monsoon Rainfall Variation:**

The variation of Rainfall in monsoon season shows in fig.no. 2(D), In a very short period of time i.e. monsoon season more than 80% rainfall receives in this season. The variation of rainfall during this season ranges from 26.8% to 73.7% at Lohgaon and Limboti stations. The variation is grouped in two groups i.e. below 50% and above 50%. The stations Lohgaon (26.8%), Umri (31.1%), Limboti (30.7%), Kandhar (31.7%), Malegaon (33.9%), Degloor (33.4%)Mukhed (34.2%), Shivani (35.2%), Kesrali (37.2%), Patoda (38.6%), Tamsa (39.6%), Jamb (BK) (39.8%), Bhokar (44.7%), Nanded (45.1%) and Billoli (46.1%) are recorded less than 50% variation and Kinwat, Mahur and Sarkahni stations observed 73.5%, 64.2% and 71.9% variation respectively.

#### **Post Monsoon Variation:**

The post monsoon season considered for the month of October, November and December. It is shown in fig.no. 2(E) and table no.01, the variation varies from 84.7% over Malegaon to 152.8% at Shivani stations. The statistical measures arranged in to two groups with 100 interval. The stations Bhokar, Jamb BK, Kandhar, Limboti, Malegaon, Mukhed, Nanded and Umri are recorded variation below 100%. Those stations occupied central and western part of district. Remaining 10 stations located in the northern, eastern and southern part of district which are having more than 100% variation.

#### **Conclusion:**

The district observed as the north western and northern part have greater variation than the southern part. During the winter season from south to north variation increases. It's varies from 220.3% to 447.7% at Kinwat and Mahur station respectively. The south, central and western part of district have less variation than the central east, and northern part of district in pre monsoon season. The variation of rainfall in monsoon season is found in uniform distribution throughout the region. During the post monsoon season, the northern, eastern and southern part of district have rainfall variation found with high range.

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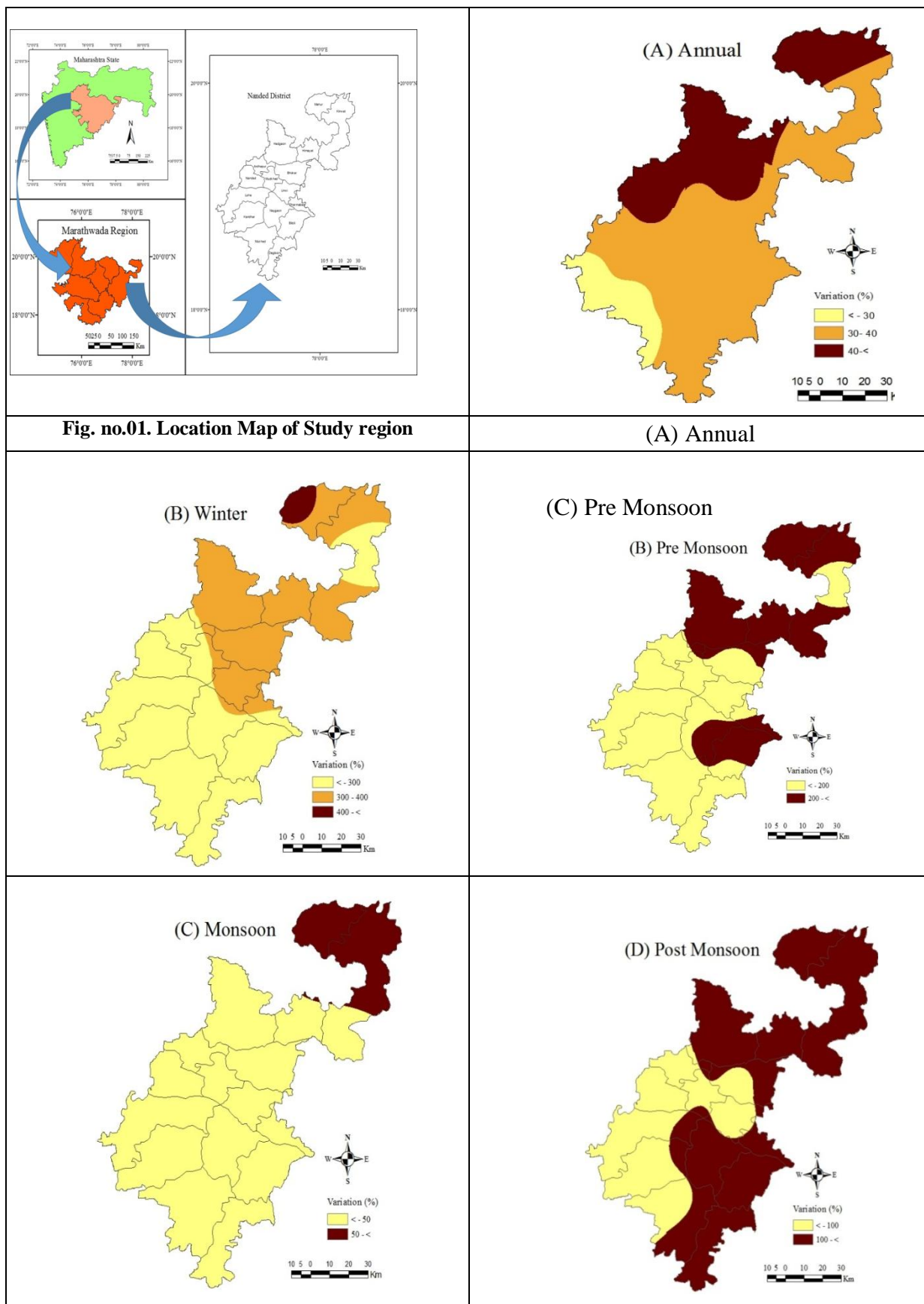
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**Table no.1. Annual and Seasonal measures (CV)of Rainfall**

Stations	Annual	Pre Monsoon	Monsoon	Post Monsoon	Winter
<b>Bhokar</b>	42.4	171.3	44.7	96.9	316.6
<b>Billoli</b>	38.9	222.0	46.1	122.7	256.6
<b>Degloor</b>	31.1	187.6	33.4	108.5	298.4
<b>Jamb BK</b>	21.1	169.7	39.8	98.1	228.2
<b>Kandhar</b>	31.0	170.6	31.4	89.9	241.9
<b>Kesrali</b>	35.2	176.4	37.2	100.8	280.0
<b>Kinwat</b>	31.1	144.4	73.5	106.8	220.3
<b>Limboti</b>	25.5	137.7	30.7	96.2	237.0
<b>Lohgaon</b>	33.0	264.8	26.8	141.2	289.9
<b>Mahur</b>	45.0	294.7	64.2	118.6	447.7
<b>Malegaon</b>	46.0	143.5	33.9	84.7	246.4
<b>Mukhed</b>	30.4	135.3	34.2	87.8	297.9
<b>Nanded</b>	43.7	164.9	45.1	89.9	227.7
<b>Patoda</b>	33.4	186.2	38.6	109.8	260.0
<b>Sarkhani</b>	48.1	285.3	71.9	126.1	361.1
<b>Shivani</b>	35.0	263.6	35.2	152.8	377.0
<b>Tamsa</b>	41.5	300.1	39.6	109.8	350.9
<b>Umri</b>	31.3	164.0	31.1	85.5	368.2

**Compiled by Researchers**  
**CV in %**



**Fig. no. 02 Annual and Seasonal Variation of Rainfall**

# **Socialist Transformation of Agriculture In China: A Model For Equal Distribution Of Agriculture Land**

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## **Introduction:**

China was in history a great agriculture dominated economy like India. China's land reform is one of the most exciting cases of reform, because within a very short time period under the central controlled communist party it went through various phases of reform process. In pre-liberation china the rural scene was one of mass poverty and skewed distribution of land ownership. This situation is shown by Russell King in his book as; "In 1937 10 percent of landlord class and rich peasants of China owns 68 percent of land, remaining 32 per cent of agricultural land was owned by 90 percent middle peasants, poor peasants and agricultural labourers. The mean holdings per household among the landlord classes were 18.2 hectares, for the rich peasants it was 4.3 hectares and for middle and poor peasants 1.4 hectares."<sup>3</sup> Similarly Lin Chin opined in his article that, "As far as China is concerned, private land-owning and a landed aristocracy are confirmed to have existed early and widely."<sup>4</sup> L.X.Zhang made a similar statement in his article as, "Before 1949, China's economy was no different from that of any other developing country, with respect to private ownership of properties and private run businesses. However, large disparities in living standards and access to resources pervaded society."<sup>5</sup> Since the communist takeover in 1949 rural China has gone through a number of vigorous and quick institutional changes which have profoundly affected her whole agrarian setup.

## **Reforms under The Chinese Communist Party (CCP)**

The Chinese Communist Party (CCP) was established on 1 July 1921 in Shanghai. The CCP started the formation of peasant unions. These unions locally started abolishing the landlord classes. Sun Yat Sen<sup>6</sup> the great leader of China with democratic ideology insisted for implementing the policy of land to the tiller under the land reform programme. But CCP's land policy mainly stressed the abolition of private property and nationalization of land. Sidney Klein stated in this regard as, "The Chinese Communist Party was formed in 1921, and from then until 1928 its agrarian policies were not only extreme in their objectives but were implemented with violence."<sup>7</sup> From 1928 to 1934 the CCP adopted very soft land reform policies because of their weak political and military powers in comparison to Nationalists. Sidney Klein observed that, "From 1928 to 1934, for a wide variety of reasons, but principally because of the military and political weakness the Communist regime, relatively more moderated policies were pursued."<sup>8</sup> As mentioned by Klein during this period the CCP's land reform policy comprised: 1) Confiscation of the property of landlords only and adoption of a conciliatory attitude towards the rich peasants; 2) nullification of all contracts bearing a high interest rate; 3) abolition of feudal taxes; and 4) equalitarian redistribution of all property confiscated. During this period CCP made a coalition with Chiang Kai Shek's<sup>9</sup> Goumindang Party (i.e. Nationalist).<sup>10</sup> But actually implementation of these policies varied in different parts of the country depending on the prominence of rightist or leftist elements. Klein mentioned in his words as, "In some areas leftist deviations occurred and the property of rich peasants as well as that of landlords was confiscated and redistributed. In other areas rightist deviations occurred and little or no property was confiscated; nor were other Communist policies implemented in the fashion desired."<sup>11</sup> During the year 1934 to -1946 CCP pursued generally non violent, more rational, more conciliatory land reform policies than even before in its history. In this period after the Long March<sup>12</sup> the CCP restated its land policy and stated, 1) all persons were to be allowed to keep as much land as they could cultivate with their own labour, but all surplus land of landlords was to be confiscated and redistributed; 2) a low progressive tax on land was to be levied.<sup>13</sup> During this period Communists molded their approach more rationally in order to meet the crisis of war with the help of landlords during the Sino-Japanese war. In this concern Yeh commented as, "During the Kiangsi period (1928-1934), land reform became a major program of the Communist movement, to which the peasants were said to have responded with warm and enthusiastic support. After the Japanese invasion in 1937, the Party formed a united front with the Kuomintang and adopted the more moderate policy of rent reduction. But the move was intended to be merely a tactical retreat."<sup>14</sup> After the Sino-Japanese war the CCP however, resumed its policy of confiscation of land of large landlords.

## **Land Reform Law of 1950**

In 1949 CCP got complete power. It faced the problem of stabilizing the economy and building a new structure of agriculture and industry simultaneously. In its first attempt in order to build a strong base for the development of the economy it aimed at eradicating the landed classes and launched a land reform

act of 1950. Nearly 90% of Chinese rural population was involved in the process of redistribution of expropriated land. But the process of egalitarian land distribution resulted in decreased farm size.

### **Towards Collectivization: First Five Year Plan 1953-1957**

The first five year plan of China was designed to accelerate the industrial development. In this plan the state investment policy emphasized on industrial sector over agriculture. In this concern David Yeung stated, "Under the Chinese Communist Leadership the modernizing history of People's Republic of China commenced in 1953 with the emphasis on drive for rapid industrial development."<sup>15</sup> 8% of state capital investment was provided to the agricultural sector (as compared to 58% to industry and 19% to transportation and communication) and a high target was fixed for its contribution to the national development plan.<sup>16</sup> Agriculture was supposed to supply food and other goods to the growing urban labour force and it is also supposed to provide exportable surplus to pay for imported foreign equipment and technology. The main resources of this plan period were extracted from the agricultural sector. Thus the first five year plan assigned agriculture the role of subserving industrial growth by contributing the maximum surplus. Thus economically collectivization was considered the most perfect method to proceed towards socialism.

### **The Period of Retreat**

From 1959-1961 over ambitious attitude of the communist leaders, excess work burden on rural labourers, mismanagement of the communes due to exaggerated statistical data given by the local authorities to the center and bad weather condition in 1959 are some of the factors responsible for retreat of Communes (Philip Jones and Thomas Poleman).<sup>17</sup> Due to the failure of Communes on various fronts the process of adjustment was initiated by the communist party. The organizational structure of the communes and the guiding principle for remuneration was changed. Labour payment was started to made according to ability and not according to need. The most important change as pointed out by Philip and Poleman as "Of the many changes introduced during the tidying-up period the most important was a sharp diminution in the powers and operating responsibilities of the top level. Ownership of the land, draft animals, and implements was transferred from it to the brigades. The right of the top level to conscript labour and siphon of brigade income was also curtailed, and the state (usually the county government) reasserted control over tax collecting, banking, and retail activities within the commune."<sup>18</sup> Further he stated "The final important element of the retreat was the decision to return private plots<sup>19</sup> and to encourage a major revival of private peasant activity."<sup>20</sup>

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10. During the period from 1923 to 1949 there we two dominant parties prevalent in China. One party of Nationalist comprised of the followers of Sun Yat Sen and Chiang Kai-Shek of Gomindang (meaning - Nationalist Party). Second party of Communists comprising the followers of Mao Zedong. Nationalists are known as Rightist and Communists are known as Leftists.
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## Modern water Conservation Methods

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### Introduction –

Water is a vital part of our functioning, which is true for the rest of life on this planet. Plants, animals, and the environment all need water to survive and function. Humans use water for just about everything, from growing food, to sanitation, and recreation. Water is an important and essential part of every ecosystem on the planet. Water is one of those resources that we just have on hand, for the most part. If you are blessed enough to live in an area without regular drought conditions or poor water supply systems, then it is easy to forget how precious water is. But as we all leave in Maharashtra and many tehsils of Maharashtra are known as droughted place for example vaijapur Ahmednagar. Hence it is our duty to conserve water save water and to reuse water. Government of Maharashtra has been very Serious about the water conservation of Maharashtra. To make Maharashtra irrigated and drought free government of Maharashtra has launched many water conservation sceamswchich has benefited many farmers and common people of Maharashtra.

**Key words –** 1. Conservation - Not allowing something to be wasted, damaged or destroyed .2.drought - a long period without rain.

### Objectives –

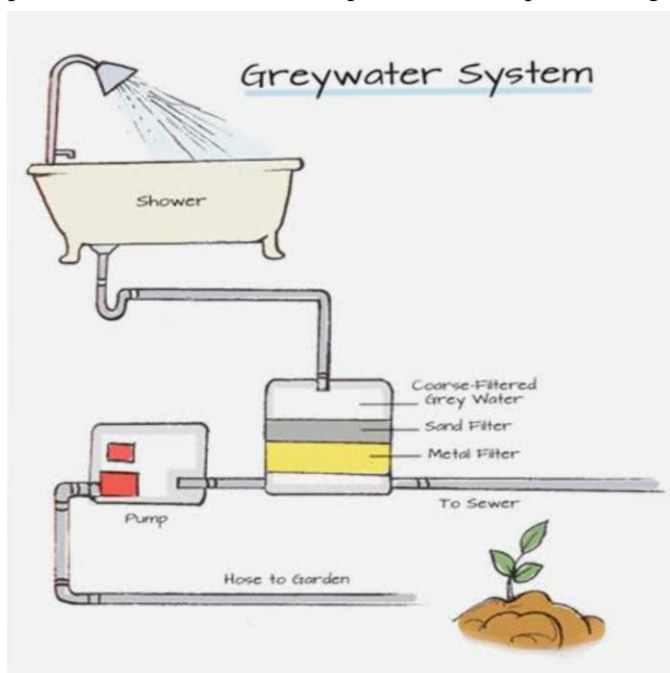
1. to understand the importance of water conservation.
2. to know important methods of water conservation

### Explanation –

water conservation is very essential for Maharashtra as many of its city's are know as droughted. Conserving water is important because it keeps water pure and clean while protecting the environment. Conserving water means using our water supply wisely and be responsible. As every individual depends on water for livelihood, we must learn how to keep our limited supply of water pure and away from pollution. Following are some water conservation methods.

#### 1) Harvesting –

Rainwater harvesting is a very effective method of conserving natural water and replenishing the groundwater level. In this method of conservation of water, the rain water is collected and allowed to percolate into a deep pit or a reservoir, so that it seeps down and improves the ground water table.



#### 2) Recycling –

Greywater recycling is a method of saving used and waste water from kitchen sinks, washing machines and showers, which is then recycled for usage in toilets, for watering plants, etc. Unlike

rainwater harvesting which relies on rainwater, greywater is surplus in volume. Environmentalists have demonstrated that the usage of this recycling system has reduced almost 70% of domestic water usage.



### 3) **Water meter –**

Another efficient way of cutting down water wastage is to install water meters and measure the amount of water that is being used in residential and commercial buildings. The volume of water that is used, is calculated and charged according to the price of water. Always monitor the water bills for unusually high usage. It can help detect any leakage.

## Water metering



### 4) **Pressure reducing valve**

A pressure reducing valve basically controls the amount of pressure in a hydraulic system. These valves ensure a pre-set level of water that is to be used. In this way, downstream components used in the water system last longer and water consumption is also reduced. This is a very efficient solution for water conservation in industrial, residential, commercial and institutional buildings.



## Pressure reducing valves



### 5) Water efficient bathroom accessories-

Currently, the market is flooded with water-efficient toilet tanks, taps and shower heads that can cut water consumption by up to 60%. Innovations, such as change in spray patterns in taps and showers and increased pressure for flushing in toilets, are pushing the boundaries of water conservation, without compromising on usage habits.



### Conclusion –

Water conservation is important to ensure that future generations have access to fresh clean water. Rapidly increasing modernity ,lifestyle which Deals with Water shortage in major cities even in some small cities of Maharashtra waste plenty of water everyday, Water distribution is uneven and therefore, large parts of India remain deficient in rain, as well as groundwater. This unequal distribution across the country, makes most of the population face water scarcity. The requirement of water in urban areas is higher than the availability. Since rainfall in India is highly seasonal, water is required to irrigate crops. Water protects the ecosystem and wildlife. Moreover, conserving water also saves energy. That is, by using smart appliances which are water and energy-efficient, we can reduce water usage and save energy too.

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# **Impact of COVID 19 on Agricultural Women Laborers' In Ambajogai**

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## **Introduction**

Women play very important role in agricultural production, animal husbandry and other related activities. Their role is of the utmost importance not only for developing the rural economy but also in ensuring food security. During COVID 19 lockdown in India, women's unpaid work load in both domestic chores and care for family has noticeably increased. Most of the women agriculture labourers in Ambajogai tehsil are dependent on agricultural work so, their primary source of livelihood. In off season these women do not get any work so women are without work combined with increasing numbers of non earning day means women easily fall into continuous debt. The risk of debt is those families where both husband and wife are dependent on agricultural daily wage work for their livelihood. In such a situation, ultimately the burden of ensuring a ready household food supply falls on the women head. Due to COVID 19 such families are suffering from extraordinary strain, because every labourer is now jobless indefinitely.

These rural agricultural labour women are the backbone of agriculture and guardians of household food security in their communities. They make essential contributions as small holder farmers, as unpaid labour on family farms, and as wage labourers, including as seasonal and informal workers on commercial farms. When men migrate to urban areas for seeking work, these women are assuming a bigger share of agriculture production beyond their roles as principal household food producers and fuel wood and water collector and they are also almost exclusively responsible for children's nutrition. Female agricultural workers who make up about 43% of the agricultural labour force in developing countries over represented in unpaid and low paid seasonal or part time jobs. The labour market is not natural to men and women. It favours men against women gender inequalities exist in almost all sectors. The division of labour is highly sex based. Higher wages are male preserves, whereas women do work as same nature bringing in lower wages. Gender inequality is also marked in acquiring educational and occasional skills. Farm woman through shouldering equally for their counterpart men folk in various activities at the farm, their efforts are negligibly recognized and thus they are deprived from their human rights.

**All these inspire the researcher to study the impact of COVID with following objectives**

1. To study the impact of COVID 19 on women agricultural labourer
2. To study the gender inequality and its effect on agricultural women labour

## **Research Methodology**

The respondents for the present study were all women agriculture labour in Ambajogai 40 samples where selected by using purposive sampling method the samples were selected randomly the schedule was carefully prepared to elicit the general information and to collect the information about specific objectives by formulating structured, unstructured objective type questions.

## **Findings of the study**

It was found in the study that all forty agricultural women labourers and their counterparts are completely dependent on agriculture as a means of livelihood. It was found that COVID19 induced lockdowns have had far reaching impacts on the rural sector, particularly on women farmers. Women's access to agricultural extension was impacted by the lockdowns and its effect on agriculture productivity. It was also found that women already have low access to formal extension was reduced further, leading to an increased reliance on informal social networks, the covid crises had laid

**Bare the disproportionate the impacts being faced by women agricultural labourer.**

In this study researcher wanted to understand the gendered impact of COVID 19 lockdowns on food and water security, livelihood income, household violence etc. It was found that most of the (42 percent) agriculture women labour were faced domestic violence during the crisis. In the study it was found that 65% women are comes under the category of not asking opinion while taking decisions in the family the shows how gender disparity is remains in the Indian rural families. It was also found that 60.5% women were not feeling secure at their workplace this finding also shows discrimination in our society. 72.5% women have no medium of entertainment, except chatting but due to crisis there is no opportunity to chat.

The study also reveals the fact that these agriculture women labour are disproportionately impacted by COVID 19. Women tend to experience more lingering income shocks and have greater difficulty accessing food than men. Furthermore, pandemic is increasing the work burden on women due to school closure and the additional care needs of Sick family household members. The covid-19 lockdown has pushed the labour families into an undurable situation that has affected their lives and health, then the disease itself. Psychologically they are now experiencing tremendous fear of poverty in addition to disease, and are incredibly vulnerable to hunger and malnutrition. Due to this economic crisis following the pandemic has pushed most of the agricultural women labours reeling under debt.

### **Concluding Remarks**

Rural agricultural women labours are the major contributors for agriculture and its allied fields. Her work ranges from crop production, livestock production to cottage industry. From household and family maintenance activities, to transporting water, fuel and fodder. Despite such a huge involvement, her role and dignity has yet not been recognized. Women's status is low by all social, economic, and political indicators. Women's wage work is considered a threat to the male ego and women's engagement in multiple home based economic activities leads to under remuneration for their work. As a result of discrimination against female labour women are concentrated in the secondary sector of labour agriculture. Education be made gender sensitive and research, development, extension and services be engendered to give due recognition to the multiple role played by women workers. Due to pandemic not only agriculture women labour's food and livelihood security is being affected, their vulnerability to mental health problems and gender based violence also increased. So, it is necessary to design and implement appropriate policies and programs which mitigate some of the negative impact of pandemic on women. Government and other institutions should come up with appropriate social security strategies and opportunities to generate skilled employment through suitable micro and small enterprises. To help these families government must immediately implement its NREGA work plan which was announced after lockdown. Rations and groceries made available at the doorstep to meet their daily food needs. By giving equal status, equal remuneration to equal work and by protecting her rights as a human being is still an urgent requirement.

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## Multiculturalism: A New Dimension in Zadie Smith's Novel 'White Teeth'.

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### Abstract:

In the present research paper, researcher presents some cultural groups particularly minority groups. Multiculturalism is response to the cultural pluralism in the society. In the modern society cultural groups has a demand on the protection of their cultural practices. They are suffer from the humiliation, discrimination and oppression. Researcher depicted the three different cultures from the novel 'White Teeth'. Researcher focused on the social, economic, cultural and political identity of the minor cultures in the British society.

**Key Words:** Conflict, Culture, Race, Multiculturalism.

### Introduction:

Multiculturalism is the picture of real life which lived by the people who have a different culture. The issues such as race, identity crisis, class and gender arises in the society. People are quite insecure regarding their own cultural prevention. Individuals frame their personal experiences. Such social groups have different ethics, identity, religious background, rites and rituals. The origin of the term 'Multiculturalism' found in the Canada. The term firstly talked about the problems of migrated people on those days. Afterwards it spread widely towards the all over nations. Due to differences of social groups becomes cause of development in the arts, literature philosophy, education, music styles, food, clothing and living style. Multiculturalism plays vital role in the nations under the globalizing expectations and strong ambitions.

### Description of Multiculturalism

Multicultural societies have a different characteristics. They are the unique identity regarding race, cultural practices, rites and rituals. Different kind of the societies live together. Cultural diversity strongly observed in the same community. Their living styles is different from each other. Such as languages art way of living a life manners and behaviors and so on. In the following different cultures such as British, Muslim and Jewish have a different cultural background. They celebrates and share their own unique identity. These diversity occurs in the same community when people of different races, nationalities, religions, ethnicities, and philosophies come together to form a community. White Teeth is enormous success for Zadie Smith. This novel has cultural and personal identity in the contemporary British Literature. Zadie Smith stated hypocrisy and the fakeness of the people in the British country. Zadie Smith focused on the minority culture, roots and rootlessness and described the conflicts among the all characters from the novel.

### British Culture

White Teeth focuses on the British family, who are white and nationalized in a Briton. They take their benefits as a white and British's.

*"I wanted to write a book about a man who gets through the century in a good way. He lives a good life by accident. That's where Archie came from. He's a kind of Jimmy Stewart-ish character, maybe a bit simpler than that. The rest of it formed itself around him with lots of bits and bobs from my reading and my own life. It was a kind of mishmash, as first novels tend to be."* (Smith, 2002)

In this novel Zadie Smith has depicted a British family. Archie Jones is the person as much as above the forty year old. He became unsuccessful suicide. He inspired for living a life when he saw a toothless girl Clara.

*"And when your teeth rot . . . aaah there's no return. They won't look at you like they used to."* (Smith, 2001: 173)

He married her. They had a daughter. On the period of second world war Archie and his friend met each other. At that time Archie stressed to Samad for killed a Nazi Scientist. Younger generation from the novel suffered from the racism and identity conflict. Irie mixed with her classmates who have a multicultural background. , Irie's did friendships with her peers, namely Millat, Magid, and Josh Chalfen Hence in her school Glenard Oak recognized as a racist slurs by her classmates.

### Muslim Culture

Samad Iqbal is the Muslim Man who is the best friend of Archie Jones. He married to the Alsana. They have a two sons which are the twins, named Millat and Magid. Racism strongly implemented in the life of Samad Iqbal. He participated in the world war II. Where he suffered under the racism. His officers in the British army, humiliated to him as a non-white. Later in the London, He was treated as an outsider

with disrespect. His children's took the part in the middle school in London. The sense of western culture reflected in his lifestyle, he strongly dissatisfied for that. Samad was worried regarding his sons adaptation of white culture instead of Muslim, hence he sent to Magid in the Bangladesh. His wife Alsanadoesn't know his husbands act. Irie a daughter of the Archie Fallen love with the Millat, a Muslim boy. They were caught once in smoking together. Later Magid returns from the Bangladesh and went to England. He become calm and forgotten Muslim culture. Samad totally disappointed on him. Finally Magid went for the research in to the Marcus house.

### **Jewish Culture**

The Chalfen family is third generation and the immigrants from the Eastern Europe. The Jewish family transfer their name from 'Chalfenovsky' in to the 'Chalfen'. They want to be a Britisher's as early as possible. They are unsocial create their own world which is bound up to their own family.

Zadie smith described a story of Jewish scientist. Marcus Chalfen have the great scientific approach. He was the father of Jewish genetic engineer. He works on one project named Mouse project. Zadie depicted the scientific fantasy i.e. transfer of the rabbit genes in to mice with net on their feet. He is interested to invention of the medicine on cancer cure. Chalfen is an ambitious man and frank person who openly talked on the sex and race. He believed on his own philosophy named "chalfenism". Mrs Joyce Chalfen is the wife of Marcus and she is a Catholic feminist horticulturalist. She has worked as a gardener. She strongly believes on the DNA heritage among the plants. Joyce is a arrogant and have a many prejudices. She has a philosophy i.e. a perfect marriage and perfect children. Her family was against her Israelite love-match.

*"I mean, after a while, you've got to suspect it's in the genes, haven't you? All these brains. I mean, nurture just won't explain it"* (Smith, 2001:354)

They have a son named Joshua. He loves to Irie. Irie not responded to his affection hence he became angry and alone. His own parents always appreciate to the Millat and Magid. Hence he hate to them and joined a movement, the cruelty to animals as revolt which is against on his father's research. Joshua went against her parents.

### **Conclusion**

Researcher focused on the social status of the characters with the aspects such as culture, ethnicity, class and generation. White teeth provided a picture of According to Zadie Smith, 20 the century's England with younger generation and multiculturalism. She reflected the lifestyle of immigrants of the London and problems faced by them.

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## **A Comparative Analysis of service Areas of Agro Service Centers in Chopda tahsil**

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### **Introduction –**

Most of the population is engaged in agricultural activities in Chopda tahsil. About 69 % of the population of a tahsil depends largely on agriculture. In this regard agro service centre's have a importance role in accelerating the pace of agricultural production by providing farm machinery, implements and other essential inputs to the farmers. It also provides greater jobs and services to the people. The agro service centre's can help to educate the farmers about the new and advanced technology in agriculture. Now a day these centres have become a part of infrastructure in the development of agriculture and rural welfare .Introducing such facilities in villages the technical qualified can also be retained where they are. On this back-ground the present paper falls the light on the comparative analysis of agro service centre's.

$$SI = TC \times A/C$$

$$R2 = TC \times A/C$$

Considering centrality scores “ R “ values of each agro service centre have been calculated and presented.

**Keyword** – Spatial analysis, sphere of influence, Centrality, agglomeration.

### **Study Area –**

Chopda tahsil is located in the north western portion of the Jalgaon district. Chopda tahsil is a jalgaon district. It is situated at the west border Madhya Pradesh. Chopda city is 72 Km from jalgaon district place. Chopda is a town one of the tahsils constituting 111 villages in the jalgaon district in Maharashtra, a state in the western region of India. It is located at 21.25°N and 75.18°E and has an average elevation of 190 meters. The town is situated on the banks of the Ratnavati River and is linked by roads to the rest of the Jalgaon district also borders with districts like Dhule, Khargone and barvani in Madhya Pradesh. The tapi one of the major rivers in india is approximately 10 km away from Chopda.

Chopda has an agricultural economy. Major crops include sugar cane, Cotton, bananas, pulses and poultry. Chopda is also home to several industrial projects, including the chahardi sugar factory sutgirmi and several cotton ginning and pressing factories. Other business like gold and cloth markets can be found on Chopda city. Chopda tahsils also several educational institutions and serves as a regional transportation centres. Chopda is connected by roads to neighboring cities such as jalgaon, Amalner Yawal, Shirpur state highway no -4, Burhanpur Ankleshwar goes through Chopda. Railway stations are in the neighboring cities of Dharangaon, Amalner, Jalgaon and bhusawal. The closest airport is at jalgaon.

Local tourist sites include the hot springs at Unapdev. According to local mythology an arrow shot by lord Rama formed the hot springs. It is therefore considered a holy place and said to cure skin diseases. There are picnic spots around unapdev. Other attractions include Chaugaon fort near lasur Nageshwar temple scenic hills in satpuda, and the river Tapi. Rel Maruti mandir is a temple dedicated to lord Hanuman 8 km from Chopda city on the route to dharangaon. Aner Dam 20 km from th city is an old dam on the river aner.

The sub district is home to As per 2011 Census of india about 3.1 lakh people, among them about 1.6 lakh are male and about 1.5 lakh are female of the hole population are from general caste 7 % are from schedule caste and 31 % are schedule tribes. Child population of Chopda tahsil is 13 % among them 53 % are boys and 47 % are girls. There are about 65 thousand households in the sub district and an average 5 persons live in every family. The minority of the population nearly 77 % live in Chopda sub district rural part and 23 % population live in Chopda sub district urban part. The main language and dialects spoken are Ahirani, Gujar, Marathi, Hindi, Urdu and English.



**Objective;** - In view of the above present investigation aims to analysis the Service areas of agro service centers in Chopda tahsil in jalgaon district.

**Data Base and Methodology :-**

Statistical abstracts and census handbook. In present study Prakash Raos modified method are complied for comparative analysis of service area of agro service centre's in the region.

Prakash Raos modified method : -For demarcation of the service area of a central place and in case of Agro Service Centre's there are many methods. In the present study , the spheres of influence of 75 Agro Service Centre's of the study area have been demarcated by Prakash Raos mathematical equation with some modification.

$$SI = TC \times A/C$$

$$R^2 = TC \times A/C$$

Where :- 'SI' – is sphere of influence.

'TC' – is total centrality value of Agro Service Centre's

'A' : - is total area ( Sq.Kms) of the study area

'C' - is total centrality of all Agro Service Centre's

'R' – is radius of circle indicating the sphere of influence

Considering centrality scores 'R' value of each Agro Service Centre's have been calculated and presented.

**Regional Analysis :-**

In Chopda tahsil 7 agro service centre's are fourth order, 14 agro service centre's are third order, 12 agro service centre's are second order, 05 agro service centre's are first order.

In the study area Adavad and Dhanora Agro Service Centre's have the largest service area. These places are concentrated in agriculturally prosperous area. The first order agro service centre's are biggest having grampanchayat and corporation. They have great capacity to serve its surrounding area. All these agro service centre's accumulated agro service like distribution of fertilizers, seeds, pesticides, markets veterinary, institutions, primary agricultural credit societies, banking facility, agricultural extension service etc. These agro service centre's have a good network and their service area is also highest. In the study area 12 second order of medium size agro service centre's, which are large villages. The agro service and inputs are concentrated in these villages. But they have smaller area of influence is compare to first order agro service centre's. In the study region there are 14 agro service centres in third order which are not large villages but small villages and they have enough agro service to serve the surrounding area. These are medium size agro service centres. There are 07 agro service centres in fourth order. These are lower order of agro service centre's. So that they have small service areas than other places.



The degree of influence calculated by this method reveal the fact that there is a considerable overlapping in the zone of influence of the agro service centers in the part of the study region where a large number of agro service centers have agglomerated.

The analysis reveals the four intensity service areas of agro service centre's 1. Fairly Served Area. 2. Moderately Served Area 3. Poorly Served Area. Fairly Served Area is concentrated in the agriculturally developed area. Moderately Served Area is located adjacent to the fairly served area. Poorly Served Area occupies northern part of the region, which is agriculturally less developed.

**Conclusion:-**

The spheres of influence of 38 agro service centre's of the study area have been demarcated by Prakash Rao's mathematical equation. Using Prakash Rao's formula, the degree of influence calculated. Its reveal the fact that there is a considerable overlapping in the zone of influence of the agro service centers in the part of the study region. The analysis reveals that there are six intensity service areas of agro service centre's. The poorly and very poorly served area occupies central part of the region, which is agriculturally less developed. Whereas fairly served areas is located in the western and eastern part of the study region which is agriculturally well developed area.

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# Spatio-Temporal Study of Agricultural Development in Satara District

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## Abstract:-

Agriculture development refers to the process of transformation through which the shift takes place from the stage of traditional agriculture to the stage of modern agriculture. In this paper an attempt has been made to study the Spatio-temporal change in agricultural development of satara district. The present study is based on secondary data. For this study tehsil wise data of agricultural has been collected. To calculate agricultural development, the data of nine variables/indicators have transformed into a Z-score technique.

## Introduction:-

Agriculture is plays a vital role in food security and economic growth. The majority of people in rural areas depend on agriculture for their livelihood, either directly or indirectly. Agriculture not only provides food for the country, but it also employs. According to the 2011 census, more than 54 percent population of India working in agricultural sector. It also earns foreign exchange and adds to the market for industrial goods. Agriculture is India's primary source of income. Agriculture and agricultural-related activities account for more than half of India's national income.

Agriculture development refers to the process of transitioning from a stage of traditional agriculture to a stage of modern agriculture. The utilization of high yielding varieties (HYV), irrigation, and sophisticated agricultural equipment, among other things, are all part of the agriculture development process. Agriculture development refers to the region's agriculture system being equal.

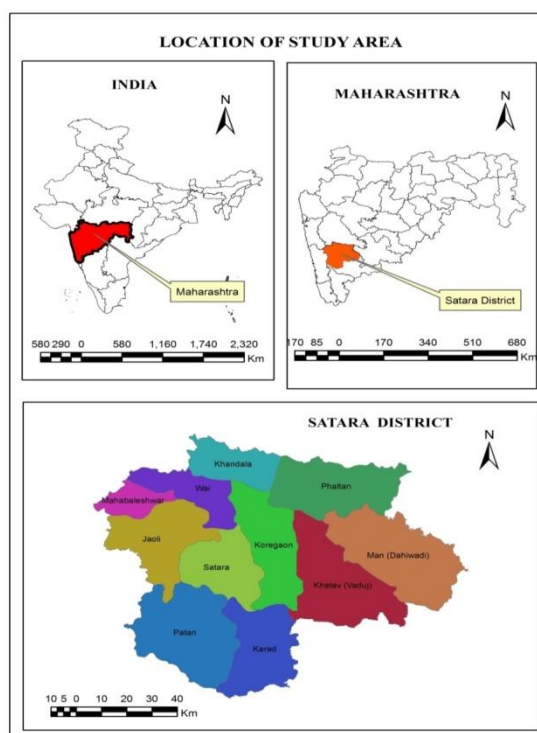
## Study Area:-

Satara district located at southern part of Maharashtra and western limit of the Deccan plateau. The latitudinal and longitudinal extent of Satara district is 17° 5' to 18° 11' North and 73° 33' to 74° 54' East (**Map-1**). Satara district is surrounded by Pune in North, Solapur in the east, Sangli to the south and Ratnagiri to the west.

Satara district consists of eleven tehsils namely; Mahabaleshwar, Wai, Khandala, Phaltan, Koregaon, Khatav, Man, Satara, Jaoli, Patan, and Karad. The district has 10480 Sq. km. area; it covers 3.40 Percent area of the state. According to 2011 census, there are 1719 inhabited villages in the district.

## Database and Methodology:-

The present study is based on secondary data. For this study tehsil wise data has been collected. This data has been collected from Socio-economic abstract of Satara district, District statistical handbook etc.



To study the agriculture development of Satara district tehsil wise data of nine different variables have been collected. The collected data have been tabulated in proper format and apply suitable statistical methods for obtaining good results.

For calculation of agricultural development, the data of all variables/indicators have transformed into a Z-score technique. The formula for Z-score is as follows.

$$CSS = \frac{\sum Z_{ij}}{N}$$

Where,

$Z_i$  = Z-score for 'i' observation

$X_i$  = Original Value of  $i^{th}$  observation

$\bar{X}$  = Mean of 'X' variable

S.D. = Standard Deviation of 'X' variable

In order to classify tehsils according to their development, the composite Z-score have been grouped into high, medium and low.

The final result of Z-score obtained for different indicators was aggregated by Composite Standard Score (CSS) to bring development on a common scale. The composite standard score expressed as follows.

$$CSS = \frac{\sum Z_{ij}}{N}$$

Where,

CSS = Composite Standard Score

$Z_{ij}$  = Score of an indicator 'j' in tehsil 'i'

N = Total number of Indicators

In order to classify the tehsil according to the development, the composite scores were divided into three classes i.e. high, medium and low.

#### Interpretation:-

#### • Agricultural Development in Satara District (1991):-

Table-1 depicts the Standard (Z) Score of indicator/variables for Agriculture Development (1991) of Satara district. There are three tehsils namely Karad, Patan and Phaltan comes under the highly developed category of the development. There are four tehsils which come under the moderately developed category. It includes Wai, Satara Khandala, and Khatav tehsils of the district.

At the same time Mahabaleshwar, Jaoli, Koregaon and Man tehsils are in low development of category. In Mahabaleshwar and Jaoli tehsils most of the area is hilly. Forest cover and undulating topography in these tehsils result in low development in agriculture. (Map-1)

**Table-1, Satara District, Standard (Z) Score of indicator/variables for Agriculture Development (1991)**

Sr. No.	Tehsil	Composite Index
1	Mahabaleshwar	-1.18
2	Wai	-0.13
3	Khandala	0.05
4	Phaltan	0.62
5	Man	-0.15
6	Khatav	0.06
7	Koregaon	-0.15
8	Satara	0.02
9	Jaoli	-0.26
10	Patan	0.16
11	Karad	0.95

Compiled by Researcher

#### • Agricultural Development in Satara District (2001)

Table- 2 reveals that the highest composite index is observed in Karad tehsil (1.05). It indicates that Karad is the highly developed tehsil in the district. Table No-2 depicts the level of agricultural development of Satara district. There are three tehsils namely Karad, Koregaon and Phaltan belong to the highly developed category of the development.

**Table -2, Satara District, Standard (Z) Score of indicator/variables for Agriculture Development (2001)**

Sr. No.	Tehsil	Composite Index
1	Mahabaleshwar	-1.05
2	Wai	0.02
3	Khandala	-0.25
4	Phaltan	0.43
5	Man	-0.58
6	Khatav	-0.04
7	Koregaon	0.29
8	Satara	0.19
9	Jaoli	-0.33
10	Patan	0.27
11	Karad	1.05

Compiled by Researcher

Karad tehsil have fertile soil, well developed irrigation facility, use of advanced equipment's in agriculture, use of chemical fertilizer and well agriculture productivity.

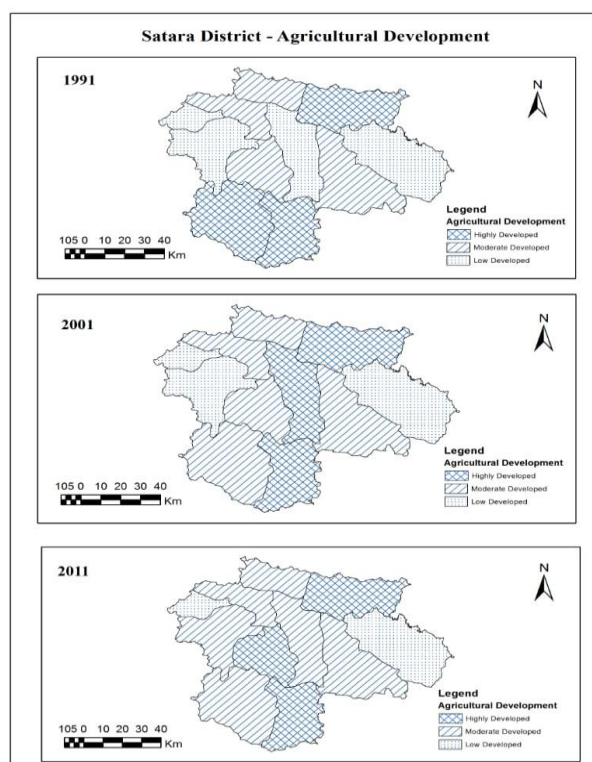
There are five tehsils which come under the moderately developed category. It includes Khandala, Khatav, Patan, Satara and Wai tehsils of the district.

At the same time Mahabaleshwar, Jaoli and Man tehsils encompass low development of category. Mahabaleshwar and Jaoli tehsils have most of the hilly tract, forest cover, undulating topography, steep slope, less net sown area; as a result, there is low development in agriculture. Whereas Man and Khatav tehsil belongs to the drought-prone area, scarcity of rainfall, use of traditional methods of agriculture leads to low development of agriculture. (Map-1)

#### • **Agricultural Development in Satara District (2011)**

The highest composite index is of Karad tehsil (1.02) this indicates that Karad is highly developed tehsil in the district.

Table-3 show the spatial pattern of the level of agricultural development of the Satara district in 2011. In the decade 2011, there are three tehsils namely Satara, Phaltan and Karad belongs to the highly developed category of agricultural development. Karad tehsil has an abundant water supply throughout the year, black soil; use of modern tools in agriculture, good agriculture productivity tends to the highly developed category of the development. Phaltan,



**Map-1 Agricultural Development**

Koregaon, Patan, Khandala, Khatav and Wai tehsils of the district comes under the moderately developed category.

During 2011, Mahabaleshwar and Man tehsils comprise in low development category. Mahabaleshwar tehsil located extremely west to the district which has a hilly tract, undulating topography, steep slope, less net sown area, forest cover, as result there is low development in agriculture. Whereas Man tehsil belongs to the drought-prone area, scarcity of rainfall, use of traditional methods of agriculture led to low development of agriculture. (Map-1)

**Table -3, Satara District, Standard (Z) Score of indicator/variables for Agriculture Development (2011)**

<b>Sr. No.</b>	<b>Tehsil</b>	<b>Composite Index</b>
1	Mahabaleshwar	<b>-1.14</b>
2	Wai	<b>0.21</b>
3	Khandala	<b>-0.30</b>
4	Phaltan	<b>0.34</b>
5	Man	<b>-0.44</b>
6	Khatav	<b>-0.14</b>
7	Koregaon	<b>0.12</b>
8	Satara	<b>0.28</b>
9	Jaoli	<b>-0.19</b>
10	Patan	<b>0.23</b>
11	Karad	<b>1.02</b>

Compiled by Researcher

### **Conclusion:-**

In 1991, there are three tehsils namely Karad, Patan and Phaltan comes under the highly developed category of the development. At the same time Mahabaleshwar, Jaoli, Koregaon and Man tehsils are in low development of category.

In the year 2001, there are three tehsils namely Karad, Koregaon and Phaltan belong to the highly developed category of the development. At the same time Mahabaleshwar, Jaoli and Man tehsils encompass low development of category.

In the decade 2011, there are three tehsils namely Satara, Phaltan and Karad belongs to the highly developed category of agricultural development where as Mahabaleshwar and Man tehsils comprise in low development category. Satara, Phaltan and Karad belong to the highly developed category of agricultural development. These tehsils have an abundant water supply throughout the year, black soil; use of modern tools in agriculture, good agriculture productivity tends to the highly developed category of the development. In Mahabaleshwar and Jaoli tehsils most of the area is hilly. Forest cover and undulating topography in these tehsils result in low development in agriculture.

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# **The Critical Study of Agricultural Productivity in Solapur District**

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## **Abstract:**

*The agriculture productivity in any region is mainly depend on the use of modern techniques in agriculture and allied activities. The measurement of agricultural productivity helps in knowing the area that is performing rather less efficiency in comparison to the neighboring areas. By delimiting the areas of low, medium and high productivity, agricultural plans may be formulated to remove and minimize for the regional inequalities. It also provides an opportunity to ascertain the ground reality, the real cause of agricultural backwardness of a region. Therefore, attempt is made here to study agriculture productivity in Solapur district. This paper is based on secondary data source. To determine agricultural productivity Jasbir Singh's method (1976) is applied. The high productivity of Jowar was observed in Karmala, Barshi, Mangalvedha, Pandharpur, Sangola and North Solapur tahsil. The high productivity of Wheat was observed in Mohol and Pandharpur tahsil due to use of high yielding varieties and availability of water for irrigation. The high productivity of Tur is observed in Barshi, Mangalvedha and Pandharpur tahsil due to favorable soil and climate. The high productivity of Sugarcane is recorded in Madha, Mohol, Malshiras and Pandharpur tahsil due to canal irrigation and Uani major irrigation project, it is low in Akklkot, Mangalvedha, Barshi and South Solapur tahsil, because of lower development of surface irrigation facility*

**Keywords:** Agriculture, Productivity, irrigation etc.

## **Introduction:**

Agriculture productivity is a function of number of factors including physical, Socio economical and technical organization, mechanization (Noor Mohammad and Majeed Abdul, 1995). The concept of productivity is a relative term and cannot be uniformly applied all over the world. Some have viewed productivity as the overall effectiveness of productive unit, while some have confined the use of the term productivity to denote the ratio of output to the corresponding input of labour. Productivity defined in economic or agricultural geography as output per unit of input or per unit of area respectively. Agricultural productivity is a measure of efficiency with which inputs are used to provide an output (Nanaware A.H., 2015). It is widely accepted that agriculture production is the result of combinations of infra-structural elements, viz, physical, techno-economic, socio-economic, socio-culture, etc. by which agriculture efficiency is influenced (Singh S. and Chauhan V.S., 1994). By delimiting the areas of low, medium and high productivity, agricultural plans may be formulated to remove and minimize for the regional inequalities. It also provides an opportunity to ascertain the ground reality, the real cause of agricultural backwardness of a region. Therefore, attempt is made here to study agriculture productivity in lower Sina basin.

## **The Study Region:**

The Solapur district is lies in the Bhima-Sina-Man basins, just before the Bhima River leaves Maharashtra state to enter in Karnataka state. It is located in between 17°10' North to 18°32' North latitudes and 74°42' East to 76°15' East longitudes. The district is fairly well defined to its west as well as east by the inward-looking scraps of Mahadeo hills range and the osmanabad plateau. The adjoining districts are Sangali to its southwest, Satara to its west, Pune to northwest, Ahmadnagar to its north, Beed & Osmanabad to its east and the Bijapur district of Karnataka state to its south. The district is divided into eleven tahsils to its administrative purpose, which constitute 1150 villages and 13 urban areas. These tahsils are Karmala, Madha, Barshi, North Solapur, Solapur South, Mohol, Pandharpur, Malshiras, Sangola, Mangalwedha, Akkalkot. The total population of district was 43,15,527 persons in which male & female were 22,33,778 and 20,81,749 respectively according to 2011 census. The regions under studies constitute about 4.88 percent area and about 4.51 percent population of Maharashtra state. It ranks fourth in terms of area and seventh in term of population among the district of Maharashtra. The district occupies the total geographical area of 14,889 square kilometer and holds fourth ranks in Maharashtra state

### Objectives:

The main objective of the present study is to anlysethe agriculture productivity in study region.

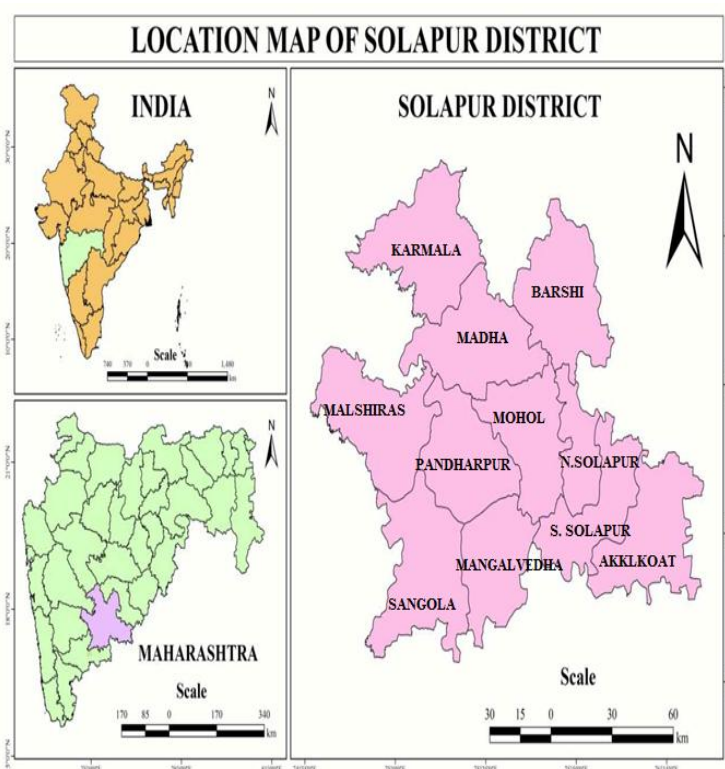
### Data Collection and Methodology:

The present study is based on secondary data source. To fulfill the objective data regarding per hectare yield and production is collected from Socio Economic review and District Statistical Abstract of Solapur districts. Agricultural epitomes published by state Government for the period of 1991-95 and 2011 to 2015.

After data collection, the data is processed. To avoid fluctuation and to get reliable result the five years average is taken into consideration. Tahsil is taken as the basic unit of investigation. To determine agricultural productivity, the technique introduced by Jasbir Singh (1976) is applied. The procedure explained as follows.

$$Y_i = \frac{Y_{ae}}{Y_{ar}} \times 100$$

Where,





Yi = is the crop yield index.

Yae = is the average yield per hectare of crop 'a' in the component enumeration unit.

Yar = is the average yield of the crop 'a' in the entire region.

$$Ci = \frac{Pae}{Par} \times 100$$

Where,

Ci = is the crop concentration index.

Pae = is the percentage strength of crop 'a' in the total cropped area in the Component enumeration unit.

Par = is the percentage strength of crop 'a' in the total cropped area in the entire region.

The derived crop yields and concentration indices for crops are ranked separately, yield and

<p>Crop Yield and Concentration Indices Ranking Coefficient For Crop-A</p>	<p>=</p>	<p>Crop Yield Index Ranking Crop 'A' + Crop Concentration Index Ranking Crop 'A'</p> <hr style="border: 0; border-top: 1px dashed black;"/> <p>2</p>
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concentration ranks for individual crops are added and there after divided by two thus giving the crop yield and concentration indices ranking coefficient.

The equation is as follows.

This will give an idea of the level of agricultural productivity. The lower the ranking coefficient, the higher the level of agricultural productivity and vice versa. This technique helps to identify the crop of good level of productivity in the region. The ranking coefficients for individual crops thus derived are arranged in order and coefficients are grouped in to three efficiency grade viz. high grade, moderate grade and low grade for discussing the spatial variations in the region

### **Agricultural Productivity in Selected Crops:**

#### **1. Jowar:**

During 1991-95, the table shows that the high productivity of Jowar was observed in North Solapur, Sangola, Mangalvedha, Pandharpur and Mohol tahsil. The moderate productivity is recorded in Karmala, Barshi, Madha and South Solapur tahsil. It is low in Akkalkot and Malshiras tahsil due to low rainfall.

During 2011-15, the table shows that the high productivity of Jowar was observed in Karmala, Barshi, Mangalvedha, Pandharpur, Sangola and North Solapur tahsil. The moderate productivity of Jowar is found in Madha and Mohol tahsil, while it is low in Akkalkot, Malshiras and South Solapur tahsil due to lower development of irrigation facilities.

#### **2. Wheat:**

During 1991-95, the table indicates that the high productivity of Wheat is observed in Barshi, Akkalkot, Pandharpur and Mohol tahsil. The moderate productivity is recorded in Karmala, Malshiras, Sangola, Madha, North Solapur and South Solapur tahsil. It is low only in Mangalvedha tahsil due to low rainfall.

During 2011-15, the table shows that, the high productivity of Wheat was observed in Mohol and Pandharpur tahsil due to use of high yielding varieties and availability of water for irrigation. The moderate productivity of Wheat is recorded in Madha, North Solapur, Malshiras, Mangalvedha and South Solapur tahsil. It is low in Karmala, Barshi and Akkalkot tahsil.

**Table: Crop Yield & Concentration Indices Ranking Coefficient of Selected Crops (1991-92 to 1995-96 and 2011-12 to 2015-16)**

1991-92 to 1995-96							
Tahsil	Jowar	Wheat	Maize	Tur	Gram	Groundnut	Sugarcane
Karmala	4.5	4	3.5	5.5	2.5	2	4.5
Barshi	4.5	2.5	3	1.5	1	2	5.5
Madha	4.5	5	5	4	5.5	4.5	2
Mohol	2	1	2.5	4.5	5	5	3
N. Solapur	1	4	3.5	5.5	5	5	3.5
S. Solapur	4.5	4.5	4	4	5.5	5	2.5
Akkalkot	5	2	2.5	2	5	2	4.5
Malshiras	7	3.5	1	5.5	6.5	4	2
Sangola	1	5	2.5	7	2	6	4
Mangalvedha	2	6.5	4	2	1.5	6	6
Pandharpur	2	2	1.5	3	3.5	4.5	1
2011-12 to 2015-16							
Tahsil	Jowar	Wheat	Maize	Tur	Gram	Groundnut	Sugarcane
Karmala	2	5.5	1	4.5	6	3	4
Barshi	2	5.5	4.5	1.5	2	2.5	5.5
Madha	4.5	3	3	4	5	6	2
Mohol	4.5	1	2.5	4.5	3.5	4	1.5
N. Solapur	2.5	3	4.5	5	7	5	3
S. Solapur	5.5	3.5	5.5	5	2.5	3.5	5
Akkalkot	7	6.5	7	3.5	2	2	7
Malshiras	7	3.5	1.5	5.5	6.5	4	2
Sangola	1.5	5	2.5	4	2	4	4
Mangalvedha	2	3.5	2	2	1.5	5	7
Pandharpur	3	1.5	2.5	3	2.5	4	1

*Source: Compiled by researcher, on the basis of Socio economic Review and district Statistical Abstract of Solapur District 1991-92 to 2015-16, Chief Statistical office of Agriculture Maharashtra State, Pune.*

### 3. Maize:

During 1991-95, the table shows that, the high productivity of Maize was recorded in Akkalkot, Malshiras, Karmala, Barshi, Pandharpur, Sangola, Mohol and North Solapur tahsil. The moderate productivity is recorded in Mangalvedha and South Solapur tahsil. It is low only in Madha tahsil due to low rainfall.

During 2011-15, the high productivity of Maize was observed in Karmala, Mohol, Malshiras, Sangola, Mangalvedha and Pandharpur tahsil due to increase in irrigated area. The moderate productivity of Maize is recorded in Barshi, North Solapur and Madha tahsil, while it is low in and South Solapur and Akkalkot tahsil.

#### **4. Tur:**

The table indicates that the high productivity of Tur was recorded in Barshi, Mangalvedha, Akklkot, tahsil in 1991-95. The moderate productivity of Tur recorded in Madha, Pandharpur and South Solapur, tahsil. It is low in Karmala, Mohol, Malshiras, Sangola and North Solapur tahsil.

During 2011-15, the high productivity of Tur is observed in Barshi, Mangalvedha and Pandharpur tahsil due to favorable soil and climate. The moderate productivity of Tur is recorded in Madha, Akklkot, Sangola and Pandharpur tahsil, while it is low in Karmala, Mohol, North Solapur, South Solapur and Malshiras tahsil.

#### **5. Gram:**

The table exhibits that the high productivity of Gram was recorded in Karmala Sangola, Mangalvedha and Barshi tahsil during 1991-95. The moderate productivity of Gram is recorded only in Pandharpur tahsil, whereas it is low in Madha, Mohol, North Solapur, South Solapur, Akklkot, and Malshiras tahsil.

During 2011-15, the high productivity of Gram is recorded in Barshi, Akklkot, Sangola, South Solapur and Mangalvedha tahsil. The moderate productivity of Gram is recorded in Madha and Mohol tahsil, while it is low in Karmala, Malshiras and North Solapur tahsil.

#### **6. Groundnut:**

The table shows that during 1991-95, the high productivity of Groundnut was recorded in Barshi, Akklkot and Karmala tahsil, whereas the low productivity of Groundnut was recorded in Madha, Mohol, North Solapur, South Solapur, Sangola, Mangalvedha and Pandharpur tahsil.

The table shows during 2011-15, the high productivity of Groundnut is recorded in Barshi and Akklkot tahsil due to development of surface irrigation facilities. The moderate productivity of Groundnut is recorded in Karmala, Mohol, and South Solapur tahsil, while it is low in Madha, Malshiras, Sangola, Mangalvedha Pandharpur tahsil and North Solapur tahsil.

#### **7. Sugarcane:**

The table shows that during 1991-95, the high productivity of Sugarcane was found in Madha, Mohol, Malshiras, North Solapur South Solapur and Pandharpur tahsil. The moderate productivity of Sugarcane is recorded in Karmala, Sangola and Akklkot tahsil, while it is low in Barshi and Mangalvedha tahsil.

The table indicates that during 2011-15, the high productivity of Sugarcane is recorded in Madha, Mohol, Malshiras and Pandharpur tahsil due to canal irrigation and Uani major irrigation project. The moderate productivity of Sugarcane is recorded in Karmala, Sangola and North Solapur tahsil, while it is low in Akklkot, Mangalvedha, Barshi and South Solapur tahsil.

#### **Conclusions:**

The following conclusion is drawn on the given study. The study reveals that agricultural productivity in study region is function of geographical factors. The high productivity of Jowar was observed in Karmala, Barshi, Mangalvedha, Pandharpur, Sangola and North Solapur tahsil. The high productivity of Wheat was observed in Mohol and Pandharpur tahsil due to use of high yielding varieties

and availability of water for irrigation. The high productivity of Tur is observed in Barshi, Mangalvedha and Pandharpur tahsil due to favorable soil and climate. The high productivity of Sugarcane is recorded in Madha, Mohol, Malshiras and Pandharpur tahsil due to canal irrigation and Uani major irrigation project, it is low in Akklkot, Mangalvedha, Barshi and South Solapur tahsil, because of lower development of surface irrigation facility.

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# **The Critical Study Growth of Population in Solapur District**

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## **Abstract:**

Population growth is the increase in the number of people in a population. The growth of population is one of the significant factors associated with man's occupancy. Growth of population mainly depends upon three factors viz. migration, births, deaths. Such a growth or change can be measured both in terms of absolute numbers and in terms of percentage. It gives us a general idea of the development of the region and socio-economic characteristics of the region. The high number of total population is recorded only in N. Solapur tahsil because of the development of industrial and educational facilities. The moderate population recorded in Pandharpur and Malshiras tahsil. The low number of population recorded in Karmala, Madha, Barshi, Mohol, South Solapur, Sangola, Mangalvedha and Akklkot tahsil. The low number of urban population recorded in Karmala, Madha, Pandharpur, Sangola, Malshiras and Mangalvedhatahsils because high population engaged in agriculture and they are lived in rural area. The high number of rural population is recorded in Pandharpur and Malshiras tahsil because of mostly people lived in rural area with the main occupation of agriculture. The high population growth rate is found in Sangola, Mangalvedha and South Solapur, because high fertility rate in these tahsil. The moderate growth of population is recorded only in Malshiras tahsil. The low growth rate of population is recorded in Karmala, Mohol, Pandharpur, Malshiras, Akklkot Madha, Barshi and N. Solapur tahsil because low fertility rate.

**Key words:** *Population, growth, distribution etc.*

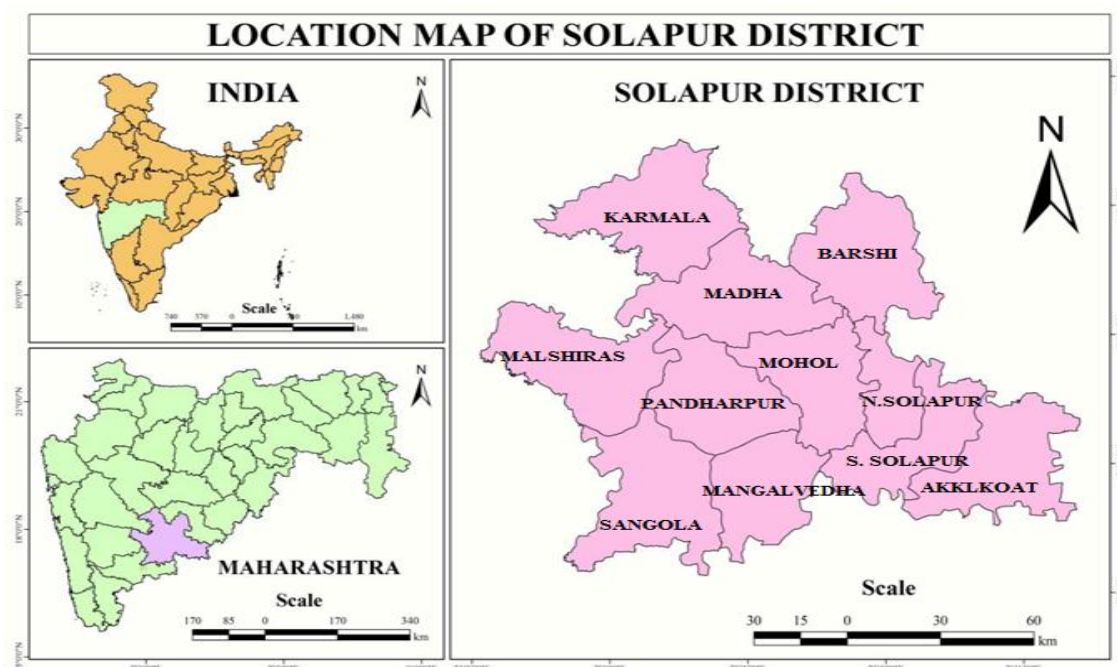
## **Introduction:**

Population is an important resource of any country or region, it is also important not only quantitatively but also qualitatively. Maharashtra is one of the most developed states in India and one of the largest contributors to the national economy. Qualitative population is considered important among the population factors. Demographic trends have a substantial impact on any country's economic performance (Fumitaka Furuoka 2010). Population is an important resource of any country and population concentration found in the positive geographical condition. (Thakare P.V. 2018) Impact Population growth and its consequences have a long-standing position at the center of the scientific debate, with the primary goal of predicting trends and creating policies that reflect specific socio-economic conditions. The population growth rate explosion during and after the Industrial Revolution was a result of better living conditions achieved through better healthcare and housing conditions, economic structure diversification and technological progress. (Marinko Skare and Sanja Blazevic 2015) Population and Economic Growth: A Review Essay. *Amfiteatru Economic*, 17, 40, pp. 1036-1053

## **The Study Region:**

The Solapur district is lies in the Bhima-Sina-Man basins, just before the Bhima River leaves Maharashtra state to enter in Karnataka state. It is located in between 17°10' North to 18°32' North latitudes and 74°42' East to 76°15' East longitudes. The district is fairly well defined to its west as well as east by the inward-looking scraps of Mahadeo hills range and the osmanabad plateau. The adjoining districts are Sangali to its southwest, Satara to its west, Pune to northwest, Ahmadnagar to its north, Beed & Osmanabad to its east and the Bijapur district of Karnataka state to its south. The district is divided into

eleven tahsils to its administrative purpose, which constitute 1150 villages and 13 urban areas. These tahsils are Karmala, Madha, Barshi, North Solapur, Solapur South, Mohol, Pandharpur, Malshiras, Sangola, Mangalwedha, Akkalkot. The total population of district was 43,17,756 persons in which male & female were 22,33,778 and 20,81,749 respectively according to 2011 census. The regions under studies constitute about 4.88 percent area and about 4.51 percent population of Maharashtra state. It ranks fourth in terms of area and seventh in term of population among the district of Maharashtra. The district occupies the total geographical area of 14,889 square kilometer and holds fourth ranks in Maharashtra state



### Objectives:

The main objective of the present study is to study the changing growth rate of Population in study region.

### Data Collection and Methodology:

The present study is based on secondary data source. To fulfill the objective data regarding population collected from district census handbook of Solapur district for the period of 2001 and 2011.

The growth of population may be approached just taking into consideration the next growth of population over the basic year may approach the growth of population. The following formula is used to calculate the growth rate of population.

$$R = \frac{P_n - P_o}{P_o} \times 100$$

Where:

R = Growth rate of population.

P<sub>n</sub> = Current year of population.

P<sub>o</sub> = Base year of population.

The growth of population is one of the significant factors associated with man's life. Growth of population mainly depends upon different factors viz. educational facility, socio economic condition. Such

a growth or change can be measured both in terms of absolute numbers and in terms of percentage. It gives us a general idea of the development of the region and socio-economic characteristics of the region.

Therefore, the study of growth of population is most important and need full aspect in population geography. In other words, it flows in size from time to time and people temporarily or permanently both within the administrative boundaries across them.

### **Discussion of the growth of Population**

#### **Total Population in 2001**

The following table indicates that the study region as a whole has 3849543 total number of population recorded during 2001 of the census year, but spatial distribution varies from tahsil to tahsil. The high number of population is recorded only in N. Solapur tahsil i.e. 960803 because of the development of industrial and educational facilities. The moderate population 368647 to 565033 is recorded in Pandharpur and Malshiras tahsils. The low number of population i.e. below 368647 recorded in Karmala, Madha, Barshi, Mohol, South Solapur, Sangola, Mangalvedha and Akklkot tahsil.

**Growth of Population in Solapur District 2001 to 2011**

Sr. No.	Tahsil	2001			2011			Total Growth of Population 2001 to 2011(%)
		Rural	Urban	Total	Rural	Urban	Total	
1	Karmala	211388	21928	233316	231290	23199	254489	8.29
2	Madha	269834	22777	292611	301564	22463	324027	9.70
3	Barshi	236046	104785	340831	253989	118722	372711	8.55
4	N. Solapur	088325	872478	960803	105794	951558	1057352	9.13
5	Mohol	252526	0	252526	276920	0	276920	8.81
6	Pandharpur	311328	91379	402707	343445	98923	442368	8.97
7	Malshiras	422600	0	422600	421244	64401	485645	12.98
8	Sangola	243961	28116	272077	288524	34321	322845	15.73
9	Mangalvedha	149555	21706	171261	184108	21824	205932	16.84
10	S. Solapur	210774	0	210774	260897	0	260897	19.21
11	Akklkot	227922	62115	290037	250890	63680	314570	7.80
Total		2624259	1225284	3849543	2918665	1399091	4317756	10.84

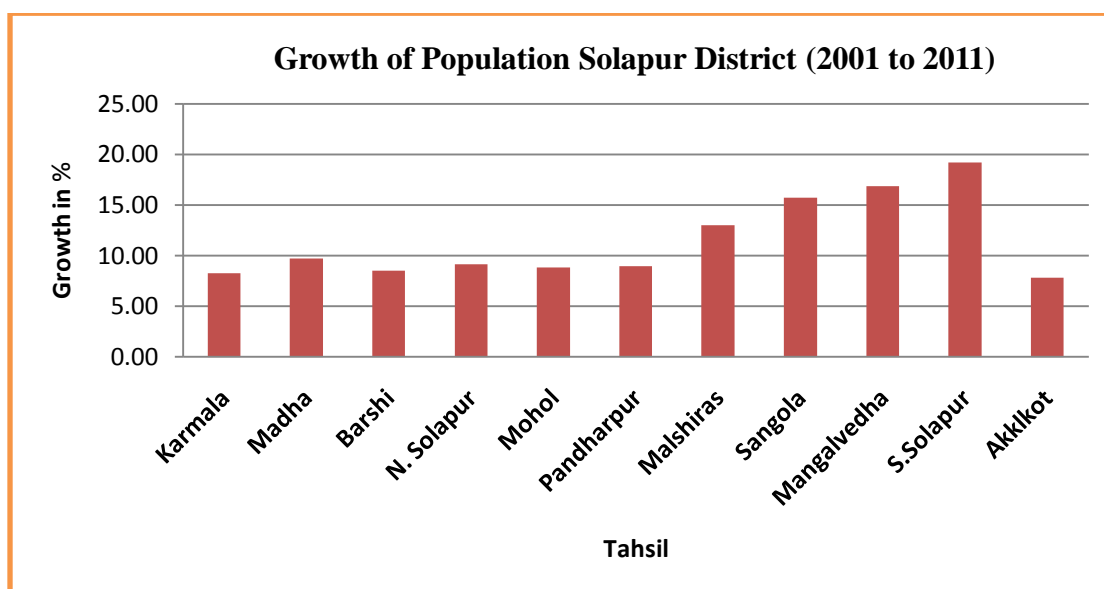
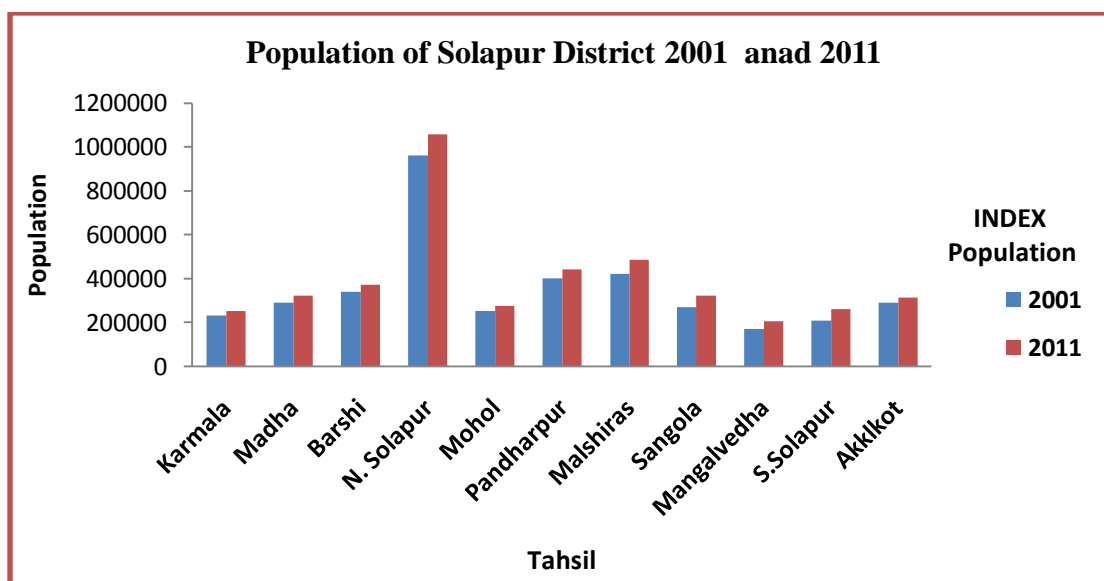
*Source: Compiled by researcher, on the basis of district census handbook of Solapur district, 2001 and 2011.*

#### **Rural Population in 2001**

The above table indicates that the rural population in study region. The study region as a whole has 2624259 total number of rural population recorded during 2001 of the census year, but spatial distribution varies from tahsil to tahsil. The high number of rural population is recorded only in Malshiras tahsil i.e. 422600 because of mostly people lived in rural area with the occupation of agriculture. The



moderate rural population 199750 to 31115 is recorded in Karmala, Madha, Barshi, Mohol, Pandharpur, Sangola, South Solapur and Akklkot tahsils. The low number of rural population i.e. below 199750 recorded in N. Solapur and Mangalvedha and tahsil.



### Urban Population in 2001

The above table indicates that the urban population in study region. The study region as a whole has 1225284 total number of urban population recorded during 2001 of the census year, but spatial distribution varies from tahsil to tahsil. The high number of urban population is recorded only in N. Solapur tahsil i.e. 555554 because of mostly people lived in urban area. The moderate urban population recorded only in Akklkot tahsil i.e. 62115. The low number of urban population i.e. below 288630 recorded in Karmala, Madha, Barshi, Pandharpur, Sangola and Mangalvedha tahsils because high population engaged in agriculture and they are lived in rural area, while there is no urban population found in Malshiras, Mohol, and South Solapur tahsil.

### Total Population in 2011

The following table indicates that the study region as a whole has 4317756 total number of population recorded during 2011 of the census year, but spatial distribution varies from tahsil to tahsil. The high number of total population is recorded only in N. Solapur tahsil i.e. 1057352 because of the development of industrial and educational facilities. The moderate 411338 to 595670 population recorded in Pandharpur and Malshiras tahsil. The low number of population i.e. below 411338 recorded in Karmala, Madha, Barshi, Mohol, South Solapur, Sangola, Mangalvedha and Akklkottahsil.

### **Rural Population in 2011**

The above table indicates that the rural population in study region. The study region as a whole has 2918665 total number of rural population recorded during 2011 of the census year, but spatial distribution varies from tahsil to tahsil. The high number of rural population is recorded in Pandharpur and Malshiras tahsil i.e. above 316094 because of mostly people lived in rural area with the main occupation of agriculture. The moderate rural population 210944 to 316094 is recorded in Karmala, Madha, Barshi, Mohol, Sangola, South Solapur and Akklkottahsils. The low number of rural population i.e. below 210944 recorded in N. Solapur and Mangalvedhatahsil.

### **Urban Population in 2011**

The above table indicates that the urban population in study region. The study region as a whole has 1399091 total number of urban population recorded during 2011 of the census year, but spatial distribution varies from tahsil to tahsil. The high number of urban population is recorded in Barshi and N. Solapur tahsil i.e. above 641646 because of mostly people lived in urban area. The low number of urban population i.e. below 641646 recorded in Karmala, Madha, Pandharpur, Sangola, Malshiras and Mangalvedhatahsils because high population engaged in agriculture and they are lived in rural area, while there is no urban population found in Mohol and South Solapur tahsil.

### **Tahsil wise changing population growth rate from 2001 to 2011 in study region**

The table indicates that the region as a whole has +10.84% growth of population during the period of investigation. But spatial distribution varies from tahsil to tahsil. The high population growth (above 15.40 %) rate is found in Sangola, Mangalvedha and South Solapur, because high fertility rate in these tahsil. The moderate (11.60 to 15.40 %) growth of population is recorded only in Malshiras tahsil i.e. 12.98 %. The low growth of population (below 11.60 %) is recorded in Karmala, Mohol, Pandharpur, Malshiras, Akklkot, Madha, Barshi and N. Solapur tahsil because low fertility rate.

### **Conclusions:**

The study reveals that there is great influence of educational, socio-economic factors on growth of population in study region. The high number of total population is recorded only in N. Solapur tahsil because of the development of industrial and educational facilities. The moderate population recorded in Pandharpur and Malshiras tahsil. The low number of population recorded in Karmala, Madha, Barshi, Mohol, South Solapur, Sangola, Mangalvedha and Akklkot tahsil. The low number of urban population recorded in Karmala, Madha, Pandharpur, Sangola, Malshiras and Mangalvedhatahsils because high population engaged in agriculture and they are lived in rural area. The high number of rural population is recorded in Pandharpur and Malshiras tahsil because of mostly people lived in rural area with the main

occupation of agriculture. The high population growth rate is found in Sangola, Mangalvedha and South Solapur, because high fertility rate in these tahsil. The moderate growth of population is recorded only in Malshiras tahsil. The low growth rate of population is recorded in Karmala, Mohol, Pandharpur, Malshiras, Akklkot Madha, Barshi and N. Solapur tahsil because low fertility rate.

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## **A Study On Area And Production Of Sugarcane Crop In India**

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### **Abstract:**

In the last 65 years, the cropping pattern in India has changed significantly. Farmers were mainly cultivating crops which required less water. The production and productivity of these crops depended largely on the monsoon. Advances in irrigation have also changed the cropping pattern. Due to increasing irrigation facilities, farmers preferred commercial or sugarcane crop over some traditional crops. The development of agro-based industries and agro-processing industries has led to an increase in the area under sugarcane cultivation.

**Keywords-** Sugarcane Area Production, India, Maharashtra and Kolhapur.

### **Introduction**

Sugarcane and sugar beet are the main sources of sugar in the world. Sugarcane alone accounts for 60% of the world's sugar production. Asia is the largest producer of sugar, followed by Europe, where most of the sugar in Asia comes from sugarcane, and in Europe from sugar beet. Sugarcane is currently grown in an area of 16 meters. This is in more than 79 countries. World production of crude sugar is 112 m.t. India ranks first in the world in terms of cane production (3.93 m. Ha) and production (167 m.t). Uttar Pradesh accounts for about 50 per cent of the country's sugarcane area, followed by Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh, Gujarat, Bihar, Haryana and Punjab. These are the nine most important sugarcane producing states. Sugarcane production is also highest in U.P. Then comes Maharashtra. In terms of productivity, Tamil Nadu ranks first with 100 tons per hectare, followed by Karnataka and Maharashtra. Bihar has the lowest productivity among the sugarcane producing states. The sugar industry is the second largest agro-based industry in the country after the textile industry. Sugarcane originated in New Guinea, where it has been known since about 6000 BC. Cultivated sugarcane falls into two main groups: (a) Thin, hardy North Indian type *S. Barberry* and Chinese *s. Sinensis* and (b) thick, juicy noble canes *S.officinarum*. *S.officinarum* is a very valuable cane. *S.officinarum* is the Indo-Myanmar China border with New Guinea as the main center of diversity. Due to its thick, juicy, low-fibre canes with high sucrose content, officinal is are called "noble canes". *S.robustum* is native to New Guinea. Tropical cane (thick cane) may have originated in New Guinea. India is the world's largest producer and consumer of sugar. About 45 million canes. Farmers, their dependents and a major agricultural force, accounting for 7.5 per cent of the rural population. Involved in sugarcane cultivation, harvesting and supplementary activities. This made India the largest Other major producers are sugarcane and sugar in the world except Brazil and Cuba. Chief Sugarcane growing states in India are Uttar Pradesh, Bihar, Assam, Haryana, Gujarat, Maharashtra, Karnataka and Tamil Nadu. Sugarcane cultivation and sugar industry play an important role in India Socio-economic development of rural areas by consolidating rural resources and generating higher incomes Employment opportunities. The major problem of sugarcane in India is based on rainfall and water supply.

## Review of literature

**Upreti Priyanka and Singh Alka (2017)** in their joint research work entitled. An Economic Analysis of Sugarcane Cultivation and its Productivity in Major Sugar Producing States of Uttar Pradesh and Maharashtra This study seeks to examine trends in area, production, productivity, cost, income. And determining the factors that contribute to the profitability and productivity of sugarcane. Sugarcane is one of the major sugar producing states in Uttar Pradesh and Maharashtra. It has been observed. Area expansion has increased sugarcane production but increased productivity. Has remained stable. Sugarcane cultivation costs are also on the rise. Excessive use of inputs was found to be higher for Maharashtra than for Uttar Pradesh. However, the increase of. The value of production has increased the cost of cultivation and hence the tendency to profit. It was higher for Uttar Pradesh as compared to Maharashtra. The study found. Positive and significant contributions to human labour, machinery, fertilizers, pesticides and plot size. Towards productivity of sugarcane and thus efficient management of these inputs can definitely be done. To increase the productivity of sugarcane in India.

## Research Problem Of The Study

Sugar is agro based product and it is almost 98 per cent of its total production, used in food factories and sweet factories. The only 2 per cent of total sugar production is used in domestic purpose. That's why production of sugarcane crops in India and increase in production is fivefold.

## Objective Of The Study

1. A study Sugarcane cropping practices in India.
2. To study the change in sugarcane crop from 2000 to 2020.
3. Suggest solutions for improvement if necessary.

## Research Methodology

Only secondary data has been collected from Books, Journals, Gazetteer, Agricultural epitomes, RBI Report, Crop reports published by the department of agriculture (2000 to 2020).

## Limitation Of The Study

The major limitation of this research is that the present research is related to only Area and Production of Sugarcane crop in India and conclusion of this research may not be applicable to other area.

## Data Analysis And Interpretation

**Table 1**

### Area and Production of Sugarcane Crop in India

(Area in million hectares; Production in million tons)

	Sugarcane	
Year	Area	Prod
2000-01	4.22	299.3
2001-02	4.32	296
2002-03	4.41	297.2

2003-04	4.52	287.4
2004-05	3.93	233.9
2005-06	3.66	237.1
2006-07	4.2	281.2
2007-08	5.15	355.5
2008-09	5.06	348.2
2009-10	4.42	285
2010-11	4.17	292.3
2011-12	4.88	342.4
2012-13	5.04	361
2013-14	5	341.2
<b>2014-15</b>	<b>4.99</b>	<b>352.1</b>
<b>2015-16</b>	<b>5.07</b>	<b>362.3</b>
<b>2016-17</b>	<b>4.93</b>	<b>348.5</b>
<b>2017-18</b>	<b>4.44</b>	<b>306.1</b>
<b>2018-19</b>	<b>4.74</b>	<b>379.9</b>
<b>2019-20</b>	<b>5.06</b>	<b>405.4</b>
<b>Total</b>	<b>92.21</b>	<b>6412</b>
<b>Average</b>	<b>4.6105</b>	<b>320.6</b>
<b>Std</b>	<b>0.44</b>	<b>45.74</b>
<b>CV</b>	9.52	14.27
<b>CAGR</b>	0.01	0.02
<b>Maximum</b>	5.15	405.4
<b>Minimum</b>	3.66	233.9

**Source:** Directorate of Economics and Statistics, Department of Agriculture and Cooperation 2019-20

The average area under Sugarcane and production of Sugarcane during the period 2000-01 to 2019-20 was 4.6105 million hectare and 320.6 million tons respectively. It means that production of Sugarcane is increasing at more rate than the area under Sugarcane crops in India. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 9.52 and 14.27 percent correspondingly. It means that, production of Sugarcane is more unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 5.15 million hectare and 405.4 million tons respectively. On the contrary the minimum area under Sugarcane crops and Sugarcane production were 3.66 million hectare and 233.9 million tons respectively during the period 2000-01 to 2019-20. It means that the production of Sugarcane crops is increasing more rapidly than the area under Sugarcane crops in India and increase in production is fivefold. In fact, cultivation of sugarcane is depending on the availability of irrigation facility since it requires huge amount of water and the availability of sugar factories. The climatic conditions are also effects on the production of sugarcane in India.

**Table 2**  
**Area and Production of Sugarcane Crop in Maharashtra and Kolhapur District**  
 (Area in “00” Ha. Production in “00” Tons)

Year	Sugarcane Crop in Maharashtra		Sugarcane Crop in Kolhapur District	
	Area	Production	Area	Production
2001	1025	92960	5953	495687
2002	1019	91966	5782	451398
2003	984	84210	5731	426170
2004	869	49184	4425	256684
2005	763	65294	3269	239137
2006	945	72293	5007	388137
2007	1063	85733	8488	662774
2008	1139	97426	10928	884372
2009	1127	98100	7684	606483
2010	1399	125910	7559	641594
2011	1399	125910	9645	856914
2012	1461	128472	10220	894561
2013	1420	137391	9381	753350
2014	1352	135802	9371	839542
2015	1463	150316	10296	915380
2016	1453	130977	63300	542370
2017	1326.31	124990	90200	831380
2018	1439.05	147790	116280	8977050
2019	1492.8	124917.5	822240	6931290
2020	1404.84	113841.2	114280	1116421
<b>Total</b>	<b>24544</b>	<b>2183483</b>	<b>1320039</b>	<b>27710694</b>
<b>Average</b>	<b>1227.2</b>	<b>109174.1</b>	<b>66001.95</b>	<b>1385535</b>
<b>Std</b>	<b>234.12</b>	<b>28556.19</b>	<b>181893.7</b>	<b>2282869</b>
<b>CV</b>	<b>19.08</b>	<b>26.16</b>	<b>275.59</b>	<b>164.76</b>
<b>CAGR</b>	<b>0.017</b>	<b>0.011</b>	<b>0.17</b>	<b>0.04</b>
<b>Maximum</b>	<b>1492.8</b>	<b>150316</b>	<b>822240</b>	<b>8977050</b>
<b>Minimum</b>	<b>763</b>	<b>49184</b>	<b>3269</b>	<b>239137</b>

Source:-Department of Agricultural, Government of Maharashtra 2019-20.



The average area under Sugarcane and production of Sugarcane during the period 2019 to 2020 was 1227.2 thousand hectare and 109174.1 thousand tons respectively. The compound annual growth rate of area under Sugarcane crops and production was 0.017 and 0.011 percent respectively. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 19.08 and 26.16 percent respectively. It means that production of Sugarcane is unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 1492.8 thousand hectare and 150316 thousand tons respectively. Likewise, the minimum area under Sugarcane crops and Sugarcane production were 763 thousand hectare and 49184 thousand tons respectively during the study period.

The average area under Sugarcane and production of Sugarcane during the period 2019 to 2020 was 66001.95 thousand hectare and 1385535 thousand tons respectively. The compound annual growth rate of area under Sugarcane crops and production was 0.17 and 0.04 percent correspondingly. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 275.59 and 164.76 percent respectively. It means that production of Sugarcane is unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 822240 thousand hectare and 8977050 thousand tons respectively. On the contrary lowest area under Sugarcane crops and Sugarcane production were 3269 thousand hectare and 239137 thousand tons respectively during the study period.

### **Conclusions**

After an overall discussion on the field and production of cane analysis in the study area, the researcher is now in a position to draw the appropriate conclusions from the study classified according to the study objectives and presented below. Analysis of secondary statistics of sugarcane production in India shows that, Product differences. The tendency of fluctuations in is seen from the equations. India has not seen a uniform increase in sugarcane production. Concluding from this. Unexpected monsoon is the main reason for low production and low productivity. Situation. Thus activities on proper irrigation management will be enabled and the scope will be widened. Sugarcane production in India. Has come forward from the study. This will increase the productivity of sugarcane. Human labor, more efficient use of machinery, Fertilizers, pesticides and size increase. Thus the plot suggests a path in the present study. Let's increase the current stable productivity

The average area under Sugarcane and production of Sugarcane during the period 2000-01 to 2019-20 was 4.6105 million hectare and 320.6 million tons respectively. It means that production of Sugarcane is increasing at more rate than the area under Sugarcane crops in India. The coefficient of variance of area under Sugarcane crops and Sugarcane production was 9.52 and 14.27 percent correspondingly. It means that, production of Sugarcane is more unstable than area under Sugarcane. The maximum area under Sugarcane crops and Sugarcane production has been observed as 5.15 million hectare and 405.4

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area under Sugarcane crops in India and increase in production is fivefold. In fact, cultivation of sugarcane is depends on the availability of irrigation facility since it requires huge amount of water and the availability of sugar factories. The climatic conditions are also effects on the production of sugarcane in India.

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### **Suggations**

1. Crop loans should be made available to farmers easily, on time and at affordable prices, especially during the harvest season.
2. Transportation from farms to cane mills especially agricultural roads need to be developed. Agricultural roads are not well developed in the study area, so it has been suggested that agricultural roads should be developed in India.
3. The production cost of the agricultural sector seems to be higher than the state and national level figures in the study area, so it is suggested that farmers should be encouraged to use profitable farming techniques.
4. The average land holding size in the study area is very small, so consider co-operative farming or joint farming, so as to reduce production cost and increase land productivity.
5. The government has no control over the market price of agricultural commodities, so the market price during the harvest period appears to be less than the minimum base price. The government should control market prices by redefining agricultural value policy.

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## Roadways Towards Sustainable Urbanisation In India's Amrit Kal

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### Abstract:

It's a quite paradox situation for India where on one side, **Hyderabad** only city from India have been recognised as **tree city of world** by **FAO & Arbor Day Foundation** & on other part amongst of leading Indian cities like **Chennai & Mumbai** Picturesque images of Urban floods with meagre inches of increase in rainfall. Where India are emerging as a global hub of Innovation via **light house projects under global housing technology challenge**, its high time to emphasize on Resilient and sustainable Urbanisation. Society in general and Urban Society in particular is not mere collection of tall buildings and Shiny Roads, at same occasion it should be Resilient to hazard, safe, secure, Progressive & Innovative with acknowledging share of future generation. Sustainable Urbanisation will act as a panacea for: poverty, slum expansion, unemployment-occurred migration, low living standard, poor sanitation etc. Roads and urbanization having linkages made in heaven. The entire process of urbanisation are Incomplete without Road being: **available, affordable, acceptable, accessible**. worthy Roads make urbanisation meaningful, Respective paper illustrate role of Road Infrastructure in Urbanisation. It will sketch out challenges of urbanisation & provides way forward for future policy formulation.

**Key Words:** Sustainable Urbanisation, Resilience, Roads, Urban Society.

### Introduction:

In 2020 approximately  $\frac{1}{3}$  rd. of total population in India lives in cities, Urban populations % of total population in India was Reported at 34.9% in 2020 according to world Bank. The trend shows an Increase of urbanisation by 4% in the last decade, at 2010 it was 30.9%. pertains to this here it's not just duty of Govt. of India to build cities/ to make urbanisation sustainable, it's also a moral obligation of citizens to keep same as sustainable. Because sustainable urbanisation is not a one day task rather its life long process. Worthy Road Infrastructure play vital role for making urbanisation more sustainable. Various challenges of urbanisation like overcrowding, traffic regulation, street vendors, haphazard growing city, chokeage of urban drainage system etc. are mainly associated with road infrastructure. solution for such challenges will surely lead to sustainable cities. Respective paper will explore the role of road Infrastructure while dealing with sustainable urbanisation.

### Literature Review:

It highlighted the effect of agglomeration in manufacturing construction and service Industries over road traffic congestion and its impact over urban density. it Indicates road traffic Congestions plays an important role in explaining diminishing returns for urbanised location. (Ref. 1)

It highlights many fold challenges in association with urbanisation like lack of integration of spatial planning with socio-cultural planning, issues of affordable housing, investment need of urban infrastructure etc. (Ref. 2)

There is a research gap of connecting linkages between roads and urbanised city respective paper attempted to cementing the same.

**Methodology:** Respective paper sketch out status of urbanization in India using statistics from secondary sources with descriptive methodology. it will also throw light on challenges of urbanization in India along with way forwards for future policy.

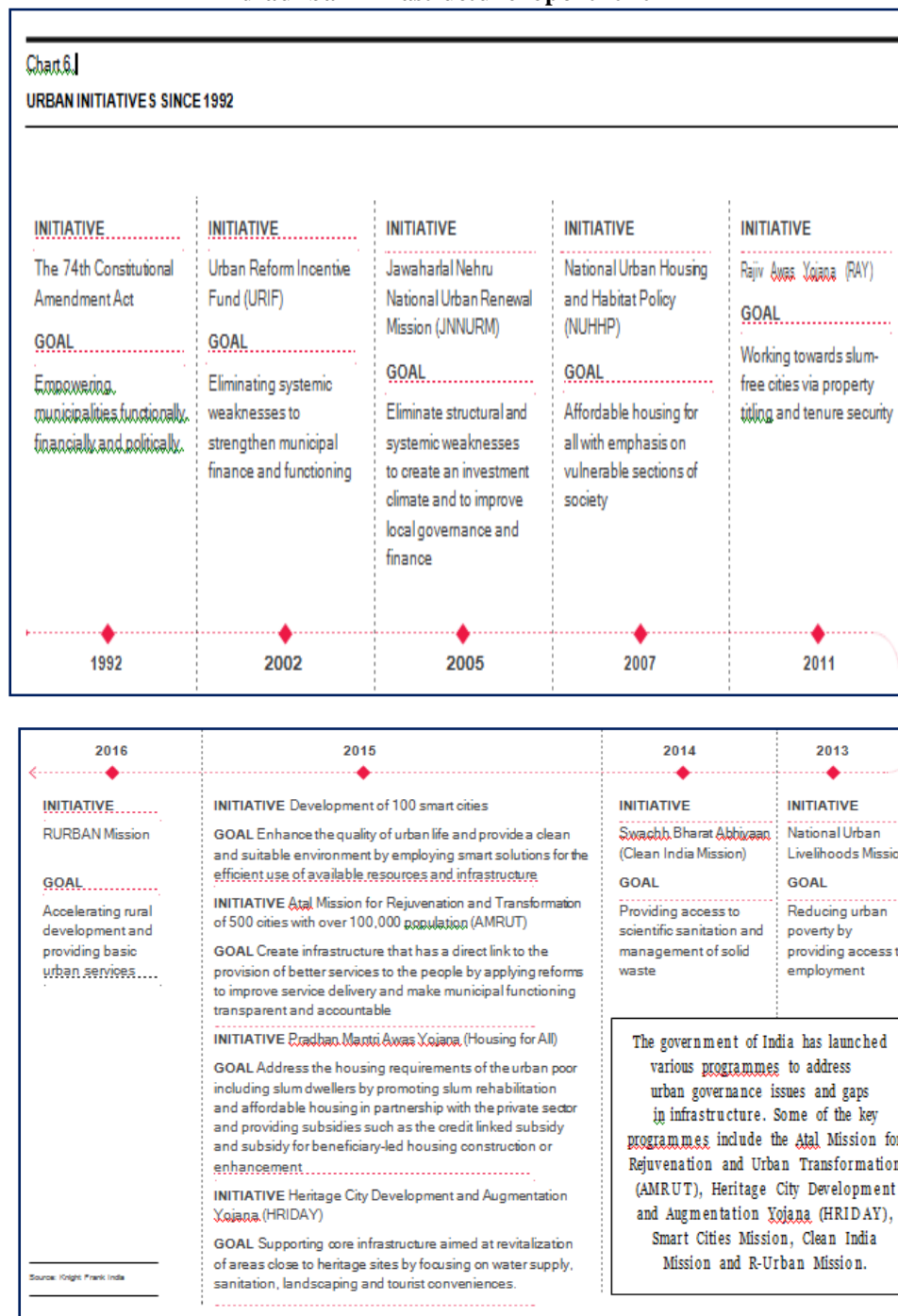
### Objectives:

1. To demarcate challenges associated with urbanisation in India & Role of Roads To tackle it.
2. To highlight efforts made by Government of India pertains to urbanisation.
3. To provide way forward for future policy formulation.

### Brief of urbanisation status in India:

As per census 2011 urbanisation in India are gathering momentum, urban population in India Increased from 86 million in 2001 to 377 million in 2011. This digit will drastically transform in upcoming census, but it is still not at par with satisfaction while comparing with other cities like **45% china, 54% in Indonesia & 87% in Brazil**. India's Urban population expected to reach 600 million (**40% by 2030**), Notonly this but Urban sectors share of nations GDP expected to Increase 66-75% by 2031% (Ref. 2).

## Urban Initiative Since 1992 Indiaurbaninfrastructurereport2020



### Challenges of Urbanisation & role of Roads Infrastructure to tackle them.

Major challenges are sketch out & few of them are discusses in details follows:

- Poor Drainage system:** Many of the leading Indian city which are brand of urbanisation for India now a Days are getting flooded even with Inches of excess rainfall, which disturbed entire schedule of people who suffused. Sometimes this **so called city flood** takes life of innocent children due to inefficient drainage system. Well designed roads with sock pits & sewage connection allocation at designing phase itself will address this issue surely.
- Haphazard growth of cities:** Many a times in India its quite unfeasible to Identity shape of city as it had grown very haphazardly. Basically its root cause lies in un-accommodation or lack interlinkage of **spatio-physical v/s socio-cultural planning**. City can't be planned well without placing Roads

Infrastructure planning at central place, India has witnessed existence of one of most planned civilization of world i.e. Indus valley civilization where roads are planned in right angles.

3. **Overcrowded Market:** At central Business district very basic issue are overcrowded market, most important reason behind this are lack of public transport and over use of personal vehicle, which create congestion in market. efficient public transport will prove panacea for it.
4. **Pollution in cities:** Concept like Urban Heat Island are emerging now days due to Increase rate of all kinds of pollution in cities. Road Infrastructure can absorb most of pollution like plastic waste, Scrap of vehicles, etc. inform of geotextiles. New Ethanol blending policy will assure less Air pollution in cities.
5. **Sanitation & Hygiene:** Water stagnation in road's pot holes, excess slum creation at outskirts of cities due to unaffordable housing, invites many diseases into the cities which affects population resides mainly in poor areas. Road cleanliness with efficient maintenance of damage infrastructure can address issue to some extent.
6. **Road Traffic Accident in city:** It's a surprising fact that only 1% of vehicles of world are in India still 11% of world RTA are occurred in India. We loss 1 life/4 minute in RTA which disturbed urban city development at large extent as one accident may lead to other accident, integration of RTA with AI system will tackle issue.
7. **Major Challenges**  
1. Conflict with Environment 2. Growth of slums 3. Poverty 4. Unemployment 5 Crime 6. Rising Temperature 7. Sewage 8. Solid waste management 9. Stalled Housing projects due to paucity of funds. 10. Land Acquisition for urban development V/s Environmental clearance Issues

#### **Govt. of India's initiative for sustainable urbanisation**

1. **Smart cities mission** – launched on June 25, 2015 under ministry of housing and urban affairs to build 100 smart cities across India. Making Indian cities full with basic amenities, e-Government, sustainable development safety. Securing etc. so far fund released for Top 15 cities among 100.
2. **Swachh Bharat Mission Urban:**  
launched on octo 2, 2014 for universal sanitation coverage in Urban areas, it reduces disease burden. This will promote 100% collection and scientific management of municipal waste with logo of **cleaned city clean society**.
3. **PM Awas Yojna Urban:** To address issues of slum development & Haphazard growth of unplanned city, Govt. comes with housing for all by 2022. 51 lakh house against the Required 1 crore are approved in last 3 years.
4. **AMRUT:**  
Atal mission for Rejuvenation and urban transformation: launched in 2015 for better Infrastructure creation to enhance service delivery to citizens. The schemes include provision of water supply, sewerage networks, storm water drains etc. in 500 Indian cities.
5. **Heritage city Development yojna (HRIDAY) –**  
Scheme Introduced on 21<sup>st</sup> January 2015 for holistic development of cities which will boost concept of urban Tourism & generate employment and Reduce shocks of poverty.
6. **National Urban Transport Policy:**  
It involves incorporation of Urban Transportation at planning stage itself, it put emphasized on intelligence traffic system, encouraging greater use of public transport system and non-motorizing modes of vehicles etc. (Ref. 4)

#### **Way forwards:**

Urban cities are proven growth engine for any nation and India are not exception for this. The only concerns needed to address are **growth must not be at cost of damaged/Distractible environment**. Nature and living culture must run on the balance wheel, to make globe in general and India in particular: **peaceful, Progressive and powerful**. for ensuring same following are areas need to be emphasized to make urban cities more sustainable.

74<sup>th</sup> CAA 1992 provide Urban local bodies for planning and functioning of urban areas but its acting like a tooth less Tiger due to lack of financial autonomy. So more financial autonomy needed for efficient urbanization. Social Auditing of sanction funds in very decentralized manners needed to put check and balance of Govt.'s disbursal of fund. Greening Transport with more, emphasized on mass rapid transit system, ethanol blending with petrol to reduce pollution, promoting and financing more electric vehicle, provide separate parking areas at suitable distance-away from rushy market area will reduce

overcrowdings in market area, only pedestrian without vehicles should be allowed in market area. Rehabilitation of street vendor within manageable limits of roads are need of an hour to reduce RTA.

Growth of slums are reason behind haphazard growth of city and same are effect of it also. Ground implementation of Awasojna urban will tackle issue at large extent.

Efficient drainage system with regular maintenance, Increase depth of soak pit, Regular cleaning of chamber are some little yet proven methods to prevent **so called urban flood**.

Recently Chennai declared, as sponge city having absorption capacity of excessive water During Urban flood, every million plus city needed to be work on same model of Chennai.

#### **Conclusion:**

Urban planning comes under **state list** in India but Unfortunately it is most ignored subject by state in name of paucity of funds. Urban cities bring many opportunities of Health, employment, education, skills etc. Here nearly development of Urban city are not going to solve the purpose of issues like: Urban heat, Rising Temperature, Sewage, Sanitation, Slumps. Rather we require sustainable Urbanisation with enhance road Infrastructure. In globenations are running in marathon of achieving sustainable development goals by 2030, to achieve it as early as possible. Being one of the best known culture of civilization **New Delhi must fetch Gold in this Race, leaving behind Beijing, Tokyo and others**. For Achieving SDG11 inclusive cities we needed both **Bill and will power** so that sustainable cities of India will be Brand of sustainability in front of globe at our centenary ( 100 year of India's independence) and will ensure: **peace, prosperity, power, progress, for the people of nation**.

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## **Literacy Pattern Of Kolhapur District: A Geographical Analysis**

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### **Abstract**

Literacy is usually understood as an ability to read and write in at least one method of writing, an understanding reflected by mainstream dictionaries. Literacy is demographic characteristic of population and it is considering one of the important social aspects of any society development, particularly for rural area and literacy denote necessary formation of human development. The present research paper is related to study the tahsil wise pattern of literacy rate of Kolhapur district during 2001 to 2011 census year. The middle and eastern region of Kolhapur district is well developed educational facilities but western region is deficiency of educational facilities due to hilly region and lack of infrastructural facilities. The literacy rate of Kolhapur district is shown that this tahsil is one of the high literate districts in the Maharashtra state. But the situation of literacy rate within the district is shown remarkable tahsil wise variations. It is found that only a Karvir tahsil is shown higher literacy (above 80%); and only a Gaganbawada tahsil has shown low literacy (below 70%) in 2001 & 2011.

**Keywords:** Literacy Rate, Gender Gap, Kolhapur

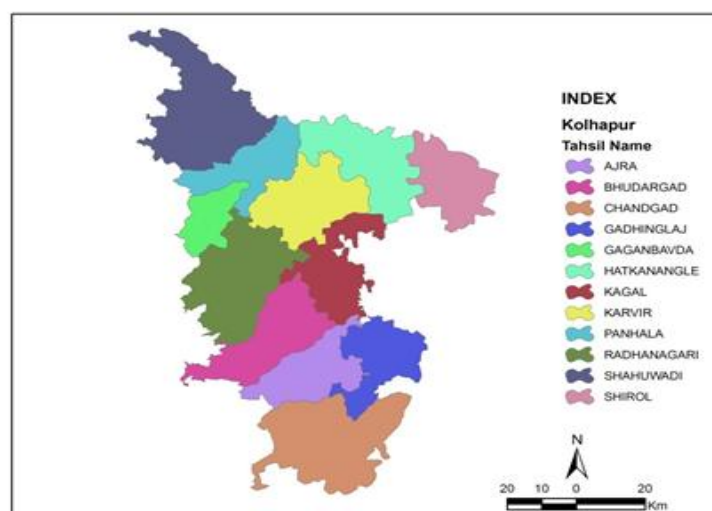
### **Introduction:**

A human can both read and write through understand in any language is to be taken as literate by the Indian census. The modern period include the ability to use language, numeral, image, computers and other simple things to understand, communicate gain useful knowledge solve mathematical problem and use the domain sign system of culture. The child age group 0 -6 are not considered literate even if they are able to spell out several words or alphabets. Literacy is demographic characteristic of population and it is considering one of the important social aspects of any society development, particularly for rural area and literacy denote necessary formation of human development. It shows the socio-culture region of any society, in any geographical division and the change literacy reproduces the socio- culture and economic transformation of the society. Literacy is an important for removing poverty and mental isolation for promoting peaceable and kindly international relation and for allowing the play of demographic progression. The gap between male and female literacy rate is a representation indicate of social discrimination. The gender literacy rate gap in education occurs when are systematically different in schooling and higher education level between man and woman. It is measure for providing evidence of the inequality that exist between the sexes in term of asses the school and college. The poverty of society is mainly responsible for low literacy. Kolhapur district is known for Panchganga valley stock has a long tradition for agriculture and it is district found highly rainfall. Kolhapur has well developed transportation and communication facilities; hence the agro-based industries are developed in the district. The Kolhapur district middle and eastern region are well develop education facility but western region education facility low because hilly region so lack of accessibility transportation network.

### **Study Region:**

Kolhapur district is located in the southern part of Maharashtra state and it lies between 15°43' and 17°17' North latitude and 73°40' and 74°42' East longitude. It is surrounded by Belgaum district of Karnataka state to the east and south, north by Sangli district, the west by Ratana giri and Sindhudurg district. The Sahyadri ranges stretched to the west and Warana River flows in the north which forms the natural borders.

### KOLHAPUR DISTRICT : LOCATION



Source: Based on Survey of India



Source: Based on Survey of India



Source: Based on Survey of India

### Objectives:

1. To trace the spatial-temporal pattern of literacy rate in Kolhapur district.
2. To examine variation male and female literacy rate in kolhapur district
3. To examine the gender gap literacy rate in Kolhapur district.

### Database And Methodology:

The secondary data has been collected from the published records like's annual reports of district statistical office, district census handbook, district gazetteers. The statistical method such as percentage has been used to analyze the collected data and information about spatio-temporal pattern of literacy in Kolhapur district and cartographic techniques such as maps used to shown the results.

### Discussion And Analysis:

#### Literacy Rate in Kolhapur District-2001:

As per the 2001 census, the average literacy of the district was observed about 76.9 %. The average male and female literacy of the district was observed about 87.5 % and 66.0 % respectively. The maximum male literacy rate is 91.0 % in Karvir tahsil and minimum was of 75.3 % in Gaganbawada tahsil. In this way,

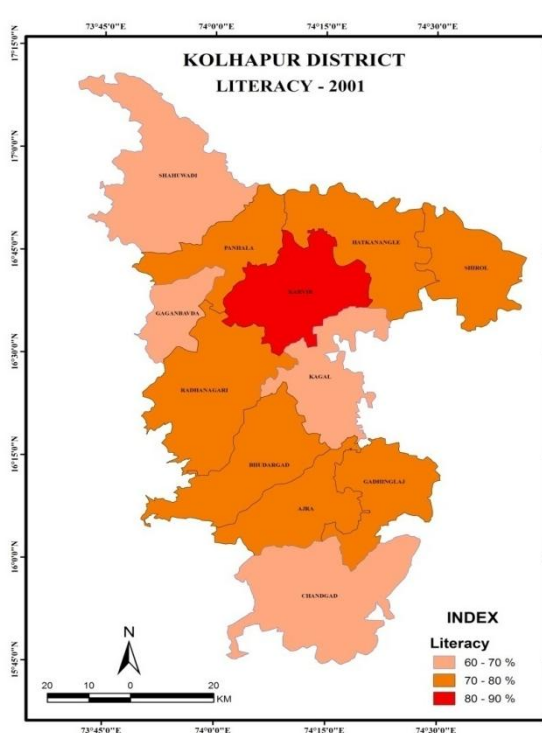


female literacy rate is 74.7 % in Karvir tahsil that is maximum literacy rate and minimum literacy rate of female is 46.0 % in Gaganbawada tahsil. The total maximum literacy rate was 83.2 % in Karvir tahsil and minimum was 60.7 % in Gaganbawada tahsil. The average gender gap in literacy rate is 21.5 % observed. The highest gender gap in literacy rate is found in Gaganbawada tahsil i.e. 29.3 % and the lowest gender gap in literacy rate is found in Karvir tahsil i.e. 16.3 %.

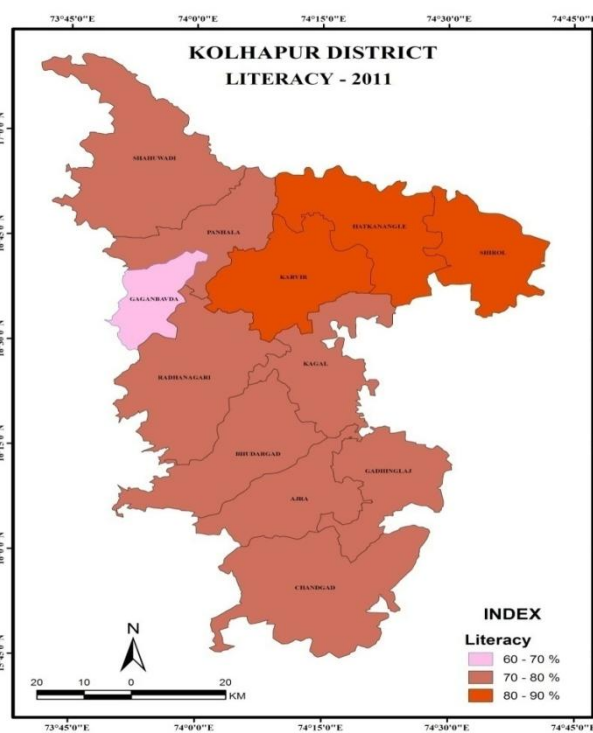
**Table 1.1 Percentage of Literacy Rate in Kolhapur District**

Sr. No	Name of Tahsil	Literacy Rate (2001)				Literacy Rate (2011)			
		Total	Male	Female	Gender Gap in Literacy Rate	Total	Male	Female	Gender Gap in Literacy Rate
1	Shahuwadi	66.9	81.1	53.8	27.2	72.7	82.0	63.7	18.3
2	Panhala	74.2	86.2	61.4	24.9	79.3	87.2	70.7	16.4
3	Hatkanangale	80.3	89.1	70.7	18.5	84.4	90.0	78.4	11.6
4	Shirol	80.2	89.3	70.6	18.7	83.4	89.8	76.8	13.0
5	Karvir	83.2	91.0	74.7	16.3	86.6	91.5	81.5	10.0
6	Gaganbawada	60.7	75.3	46.0	29.3	70.0	80.5	58.8	21.7
7	Radhanagari	71.3	85.4	56.7	28.7	77.6	88.6	66.0	22.6
8	Kagal	73.6	85.7	61.1	24.6	78.7	87.0	70.0	17.1
9	Bhudargadh	72.9	86.1	59.9	26.3	77.7	87.8	67.6	20.3
10	Ajara	69.4	82.6	57.5	25.1	73.9	83.6	65.2	18.4
11	Gadhinglaj	71.8	84.0	60.1	23.9	76.6	85.2	68.5	16.7
12	Chandgad	66.7	80.7	53.3	27.5	72.9	82.6	63.5	19.1
	<b>Dis. Ave.</b>	<b>76.9</b>	<b>87.5</b>	<b>66.0</b>	<b>21.5</b>	<b>81.5</b>	<b>88.6</b>	<b>74.2</b>	<b>14.4</b>
	<b>State</b>	<b>78.88</b>	<b>87.67</b>	<b>69.31</b>	<b>18.36</b>	<b>82.34</b>	<b>88.38</b>	<b>75.87</b>	<b>12.51</b>

*Source: Review of Socio- economic survey, (2001&2011).*



Source: Review of Socio- Economic Survey-2001



Source: Review of Socio- Economic Survey-2011

**Map 1: Kolhapur District Literacy Rate (2001)    Map 2: Kolhapur District Literacy Rate (2011)**

### **Literacy Rate in Kolhapur District-2011:**

As per the 2011 census, the average literacy of the district was observed about 81.5 %. The average male and female literacy of the district was observed about 88.6 % and 74.2 % respectively. The maximum male literacy rate is 91.51 % in Karvir tahsil and minimum was of 80.05 % in Gaganbawada Tahsil. In this way, female literacy rate is 81.05 % in Karvir tahsil that is maximum literacy rate and minimum literacy rate of female is 58.8 % in Gaganbawada tahsil. The total maximum literacy rate was 86.05 % in Karvir tahsil and minimum was 70.0 % in Gaganbawada tahsil. The average gender gap in literacy rate is 14.4 % observed. The highest gender gap in literacy rate is found in Radhanagari tahsil i.e. 22.6 % and the lowest gender gap in literacy rate is found in Karvir tahsil i.e. 10.0 %.

As per 2001 & 2011 census, Karvir, Hatkanangale and Shirol tahsils are shown higher literacy than district average because high education facility's, good transport network, more population, net area sown, net irrigated area, area under cash crops, workers engaged in secondary and tertiary activities, per capita income is also high. The Shahuwadi, Panhala, Radhanagari, Kagal, Bhudargad, Gadhinglaj, Chandgad and Gaganbawada whose average literacy rate is low than district average because low education facility's, weak transport network, undulating topography, low irrigation facility's, low industrial development and per capita income is also low in this tahsil.

The map 1 & 2 shows the information about tahsil-wise literacy variation in the study region. There are three categories of percent literacy rates i.e. High (90), moderate (80) and low (70) literacy. While compare the Map1 & 2 it is shown that the literacy rate has increased in 2011. It is also observed that the tahsils Hatkanangale and Shirol have increased their literacy from moderate to high category and the tahsils Shahuwadi, Kagal, Chandgad progress their literacy from low to moderate category. When compare of both male and female literacy rate in Kolhapur district of 2001 & 2011 it observed that maximum literacy has found in male population.

### **Conclusion:**

1. The literacy rate of Kolhapur district reveals that this tahsil is one of the high literate districts (81.5%) in the Maharashtra state. But the situation of literacy rate within the district is shown remarkable tahsil wise variations.
2. The tahsil wise literacy rate of Kolhapur district is shown that the every tahsil has increased their literacy as compare to 2001 & 2011.
3. While observing the tahsil wise gender gap of Kolhapur district it is found that the every tahsil has decreased their gap as compare to 2001 & 2011.
4. The tahsil wise male & female literacy of Kolhapur district in both years i.e. 2001 & 2011 revealed that the male literacy is high than female.
5. If observed the male and female district average literacy growth from 2001 to 2011 it is found that the female literacy has largely increased i.e. 8.2 %.
6. While observing the map 1 & 2 it is found that only a Karvir tahsil is shown higher literacy (above 80%) in 2001; and only a Gaganbawada tahsil has shown low literacy (below 70%) in 2011.

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## **The Study Of Sagareshwar Temple As A Religious Tourist Centre In Sangli District**

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### **Abstract :**

India is place full of religiously important cities, monuments and temples, which are visited by thousands of individuals or pilgrims every year both from national and international tourists. Religious tourism in India has exponential growth in the modern years. The main reason for the growth in religious tourism in India is the tremendous progress made by the Indian economy. Tourism industry in India is associated with generating net revenue of more than 7.8 trillion rupees every year. Sagareshwar Temple is a religious tourist centre in Sangli district. It is located in Deorashtr village, in Kadegaon tahsil of Sangli district. There is a group of temples which are become attraction of devotees. Under the scheme of tourism development and trustee of temple some facilities are provided i.e. drinking water, electricity, construction of Sabhamandap etc. But it is not developed as per expectations. There is wide scope to develop this place as a tourist destination.

**Keywords:** Sagreshwar, Sanctuary, Sagaroba donger, Devotee, Darshan, Hemad-panthi.

### **Introduction:**

India is having a wide area, diversity in geographical features, various historical monuments, heritage, culture, and bio-diversity provides a strong base for the development of tourism activity. It is an interesting and charming introduction of India as a tourist country. It has pleasures and facilities for all types of tourists. The forests, mountains, valleys, islands, plains or desert walls are of great interest to the naturalist, the botanist and the lover of nature (Singh, Ratnadeep, 1998).

In Maharashtra Shirdi, Tuljapur, Pandharpur, Kolhapur, Nashik, Shegaon etc are the popular religious tourist places which attract a number of devotees. Sagareshwar Temple is well known religious tourist centre in Sangli district. The surrounding area of the temple is lot of diversity in the scenery during the monsoon which represents the vegetative cover; the grass and a pleasant atmosphere lead to attract the tourists and devotees at this area.

### **Objectives:**

The main objectives of this research paper are as following.

1. To identify the religious importance of Sagareshwar Temple.
2. To assess the behavioral characteristics of the tourist.
3. To find out the problems and suggest some remedies for the development of this tourist place.

### **Data Source & Methodology:**

The present research paper is based on both primary and secondary data. The primary data was collected through fieldwork. There are 519 questionnaire prepared and filled up by the tourists and local people which are engaged in tourism activities at the Sagareshwar temple. Secondary data collected through Gazetteer of Sangli district, available published and unpublished materials, journals, books, magazines,

periodicals, news papers, different websites etc. The collected information is finally classified, tabulated, and applying various statistical and cartographic techniques.

### **Study Area:**

Sagareshwar Temple is located on 17° 08'56'' North latitude and 74° 22'39'' East longitude near to Deorashtre village. Deorashtre is a small village in Kadegaon tahsil of Sangli district. Sagareshwar Temple is situated on the road of 'Yashwant Ghat' near the Sagreshwar Sanctuary's. Due to natural scenery of surrounding area of this temple, most of the tourists are attracted towards it. It is 20 km away from Islampur, 30 km from Karad, 50 km from Sangli & 65 km from Kolhapur.

### **Result & Discussion:**

#### **Religious Importance :**

Sagareshwar temple is at the Yashwant Ghat near the Sagreshwar Sanctuary's entrance gate. Most of the tourist who visited sanctuary they always wish to taking darshan of Sagareshwar deity. The Construction of temple was completed in 7th century at the hands of King Satteshwar of Kundal. It was said that the construction of mandir is the result of King Satteshwara's faith and devotion to the God Shivji. There are 43 small temples within the campus of the Sagreshwar mandir. These temples are built on various names of God Shivji. They are Kashivishweshwar, Vaijanath, Rameshwari, Satteshwar, Nandikeshwar, Parvateshwar, Praneshwar, Dharmesh, Veerbhadra, Lakshmaneshwar, Omkareshwar, Maruteshwar, Tarkeshwar, Trambakeshwar etc.

All these temples are built by using a stone and the style of architecture is 'hemad-panthi'. To the left side of the main temple, there are three small water tanks which are perennial water tanks. No matter how much rain falls in the rainy season or how hot the summer is, the water level in those tanks are same. Here, the water level is like the sea for twelve months. That is why it must be called Sagareshwar.

On the west, north and east side of the temple there is a hilly area which is locally known as "Sagaroba Donger". That means the Sagareshwar temple is surrounded by hilly range. The height of Sagaroba donger is about 900 meters above mean sea level. As the temple is located in the hilly region, which are cover natural vegetation. The climate of this area is normally semi arid type. Summer season is hot and dry and last from February to mid June. Monsoon hit the place in mid June and last till October. Winter is mild and cool starting from early November to early February. The mean annual rainfall is 650 mm. and annual temperature is maximum 38<sup>0</sup>c, and minimum 15<sup>0</sup>c are observed.

Renovation of the temple was completed and one 'Sabhamandap' is built which is used by local people to arrange a small function and also useful for marriage ceremony. In every Hindu temple the deity is worshipped every day by the concerned Pujari. In the Sagareshwar temple God is worshipped three times in a day. Every Monday people use to come to the temple for offering a pooja. In the month of Shravan here is a crowd of pilgrims and they offer a food to devotees. A fair is also celebrated on the last Monday in the same month. On the occasion of fairs most of the tourists from Maharashtra are gathered here.

**Characteristics Of The Tourist:**

The researcher has conducted survey of visitors to find out the behavioral characteristics of the tourist. For that 519 questionnaires prepared and filled up by the tourists and local people which are engaged in tourism activities at the Sagareshwar Temple. The received data is as follows:

**District-wise tourist visited:**

The district-wise tourist visited to Sagareshwar Temple is studied for understanding the influencing area of such tourist place. It shows that the maximum tourist that is 61 per cent from Sangli district, 16 per cent from Kolhapur, 11 per cent from Satara, 07 per cent from Ratnagiri, and 5 per cent from other district of Maharashtra came to Sagareshwar Temple.

**Sex & marital structure of tourist:**

The percentage of male tourists is 64 & female percentage is 36 per cent. On the other hand, 29 per cent of tourists are married and 71 per cent are unmarried. It means that the unmarried tourists are more in number compare to married.

**Age structure of tourist:**

It is also found that the tourist age groups below 18 years are 19 per cent, between 18 to 35 years 43 per cent, between 35 to 60 years 25 per cent and above 60 years 13 per cent.

**iv) Educational Status:**

By the study of literacy, it is observed that the tourists having secondary school and graduate category are found in maximum number and the illiterate tourists are very less.

**Purpose of tourist:**

According to the purpose of tourist to visit Sagareshwar Temple that 58.38 per cent tourists come for the religious purpose, about 25.43 per cent of tourists for Nature observation, 10.01 per cent tourist for entertainment purpose, 3.46 per cent tourist came to get relaxation, and 2.69 per cent tourists came for the other purposes.

**Mode of transportation:**

It indicates that the 20.61 percent tourists have come by the State Transport Buses. About 38.92 percent tourists have come by private vehicle such as Jeep, Rickshaw, Sumo and other tourist vehicles, 8.28 percent have come by their own Car, 29.47 percent tourists have come by Motor Cycle and only 2.69 percent tourists have come by Bicycle. It is observed that 38.92 percent of tourist traveling by their private vehicle and 29.47 percent of tourist traveling by motor cycle. The main reason behind that the frequency of State Transport Buses is very less. And most of the tourist at surrounding area they prefer their own motor cycle which is more reliable.

**Problems:**

There are so many difficulties faced by tourist at Sagareshwar Temple such as Poor road conditions, Problem of parking facilities, Lack of tourist guide, Problem of medical facilities, Problem of Sanitation, Problem of personal security etc. For tourist drinking water facility is inadequate and they are appalling to the government for the same. The transport means are also inadequate to reach to the site. The S.T. bus frequencies are very low so people used their own vehicles to reach the site. The place is just a 4 km away

from Takari Railway station. The facility of lodging and boarding at this place is inadequate. There is neither a single restaurant nor a hotel.

### **Conclusion & Suggestions:**

Sagareshwar Temple is well known religious tourist centre in Sangli district. There are 43 small temples within the campus of the Sagreshwar mandir which are become attraction of devotees. Besides these, there is lot of diversity in the scenery which represents vegetative cover; the grass, various birds, and a pleasant atmosphere lead to attract the tourists at this area. But there are some problems faced by tourist.

There is large scope to develop this place as a famous tourist place. For that purpose there should be the facility of amusement garden for children, toilet system, parking system, accommodation etc. If all these facilities are provided there, then the number of tourist will be increased. Obviously, local people will get various types of economic activities and employment opportunities which lead to the overall development of the region.

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# **Conflict of Tradition and Modernity in Shashi Deshpande's Novel *Dark Holds No Terror***

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## **Abstract**

The literary work of Shashi Deshpande is a verbal representation of past and present, East and West, Tradition and Modernity. She seldom writes in isolation because she inherits the tradition and simultaneously makes an effort to create new spaces beyond those established conventions. While representing past and traditions, she has tried to break the barriers of tradition. So the present article is an honest attempt to analyze a conflict of tradition and modernity in her novel "Dark Holds No Terror."

**Key Words:** Tradition, modernity, patriarchal society, etc.

## **Introduction**

Shashi Deshpande, a daughter of the well-known Kannada dramatist as well as a great Sanskrit Scholar, Shriranga, was born in Dharwad in Karnataka. She pursued her education in Dharwad, Bombay, and Bangalore. She completed her degrees in Economics and Law with a Gold Medal. Her literary career includes nine novels, four books for children, innumerable short stories, and more recently translations of her father Sriranga's work in English. Her novel "That Long Silence" (1988) has won the Sahitya Academy Award in 1990. The literary work of Shashi Deshpande is a verbal representation of past and present, East and West, Tradition and Modernity. She seldom writes in isolation because she inherits the tradition and simultaneously makes an effort to create new spaces beyond those established conventions. While representing past and traditions, she has tried to break the barriers of tradition. So the present article is an honest attempt to analyze a conflict of tradition and modernity in her novel "Dark Holds No Terror." Shashi Deshpande in her novel *Dark Holds No Terror* makes a representation of the traditional position of women in patriarchy but she is bold enough to carve out a tradition of female fiction with the power of her pen. Her woman characters are presented as silent sufferers of the burden of past and tradition in her novel. Shashi Deshpande tries to evolve those female characters who have the will to create their own spaces for their self-development and self-identity.

The term tradition is a comprehensive term and it includes all social conventions, cultural practices, religious faith, political power, and familiar relationships. By studying *Dark Holds No Terror* we come to know that the consistent burden of traditional authority generates a rebellion against the organized forces of oppression and injustice. She represents the conflict of tradition and modernity in a particular context of women's issues. She promotes the idea that women must try to come out of their suppressed position to recognize their individuality.

In the present novel *Kamalatai*, a mother from a traditional Brahman family represents tradition and her daughter Saru or Sarita, a heroine of the novel, is well educated medical student who represents modernity. The novel uses flashback techniques in narration. The story is narrated by many, though the chief of which is the heroine itself. The novel opens when Saru has heard of her mother's death and she has come to her father, under the pretense to take care of her father. Now she recollects her whole life in cinematic technique.



Saru was born in a traditional Brahmin family of the south Indian city. Saru's parents have brought her up in an orthodox way. Her mother, Kamalatai is very rigid about religious rites and rituals. She often hates her daughter just because she is a daughter. She discourages Saru everywhere she gets the chance. One day children, Saru and her brother Dhruva, while playing in water find a crisis. The boy is drowned in a puddle and the mother thinks Saru is responsible for her son's death. She blames Saru.

Why are still alive .....?

Why didn't you die .....?

*(Dark Holds No Terror P-35)*

When Saru was growing up, her mother used to warn her that she should be careful now about how she behaves, she would tell her, don't come out in her petticoat like that. She had to be ashamed of herself even in the presence of her father. When Saru was playing in the sun her mother fired at her like;

“Don't go out in the sun .you will get even dark.

Who cares?

We have to care if you don't. We have to get you married.

*(Dark Holds No Terror P-45)*

Saru knows that womanhood is a source of sorrow, when she develops periodicity, she feels regret. She says "if you are a woman, I don't want to be" (P63), but when She began to study anatomy and physiology in her first year of medicine, she was suddenly released from a prison of fears and shame .now she knows that she was female. When Saru achieved 1<sup>st</sup> class in XIIth and wanted to do medicine, her father asked her what subjects will she take for B.Sc? And she declares that she will not go to B.Sc. She wanted to do medicine. It was an unexpected response to her traditional mother, who replied that

“And don't forget, medicine or no medicine,

doctor or no doctor,

You still have to get married,

spend money on her wedding” She adds

“Let her go for a B.Sc. can get her married in two years and

our responsibility will be over”(P44)

Saru's marriage is a burden for them. But for Saru, to get married and end up doing just what her mother did. It seemed her not only terrible but damnable. When Saru's mother is planning her marriage. She falls in love with a young writer called Manohar of the other caste. Her mother asks her,

what caste is he?

I don't know.

A Brahmin?

Of course not.

Then, cruelty.

His father keeps a cycle shop

Oh, so they low caste people, are they? (P-96)

These words of Saru's mother with disgusting hatred and prejudices of centuries enraged her. Saru tells Manu how easy it is to cut the umbilical cord and separate the baby from the mother. It is as if nature knows that the child must be detached from the parent. So for her also there will be no trauma, no bleeding. It was never painful to her. Saru thought that if her mother had not fought her so bitterly, perhaps she would not have married him. Now Saru recollects her mother's view on her marriage.

“I know all these love marriages  
It's love a few days, the quarrels all the time.  
Don't come back and tell us” (p-70)

Thus Saru is discouraged to marry a man of the other caste. But Saru, a modern woman with medical education was firm on her decision. Saru worked hard for education. She thought that she had to make herself secure so that no one would ever say to her, "Why are you still alive ...Why didn't you die?" In her day-to-day life also Saru tries to be modern in her thought, action, and relations with others. When she hears Madhav's comment on her mother that she is very old fashioned. Saru thinks that she is not old-fashioned. She always takes care not to be left behind. Though her legs are weary, her heart is numb and her mind is blank, she wants to keep marching on; she has even cut her hair to conform or to be like the others. Moreover, we can find Madhav also doesn't want to follow his father. He also has modern views of his own.

### **Conclusion**

Thus “Dark Holds No Terror” is a story of Saru's struggle against the darkness of a tradition and an attempt to search for her own identity and progress towards modernism. The heroines like Jaya in “That Long Silence”, Saru in “Dark Holds No Terror”, Indu in “Roots and Shadows”, Struggle to achieve their own identity in a patriarchal society. The woman characters in her novel are placed between contradictory identities of tradition and modern, family and profession, and culture and nature. Her novel depicts human relationships, especially relationships between husband and wife, mother and daughter, and father and daughter also. In this way, while going to the conclusion we can say that Saru has overcome the darkness of tradition and past. She does not follow the Manu code that a woman should be under the control of her father in maidenhood, the husband in her youth, sons during her old age.

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## Shashi Deshpande's *Dark Holds No Terror*: A Feminist Reading

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### Abstract

As Elaine Showalter posits three phases in the growth of feminist tradition, "Limitation, Protest, and self-discovery", Shashi Deshpande's novels are directly related to all these phases. It encapsulates her artistic vision of femininity as alienating. In her novel, she explores and exposes the long-suppressed wail for the woman imprisoned within the four walls of domesticity. Shashi Deshpande has dealt graphically with the problems that confront a middle-class educated woman in the patriarchal Hindu Society. The women portrayed by Shashi Deshpande in her novel can be classified into three groups or types who recur with subtle changes. The first type belongs to the heroine's mother or mother figure. The second type of suffering woman is the converse of the traditional type. Here, the woman is bolder, more self-reliant, and more rebellious. The third type of woman characterizes the woman in between. Most of Deshpande's heroines belong to this category. This woman is neither traditional nor radical in her ideas and practices.

Shashi Deshpande is one of the most accomplished contemporary Indian woman writers in English. Her novels are concerned with a woman's quest for self; an exploration into the female psyche and an understanding of the mysteries of life and the protagonist's place in it. *Roots and Shadows* (1983), her first novel, but published after *The Dark Holds No Terror* (1980) and *If I Die Today* (1982), marks the beginning of the quest of a woman for herself. The theme is continued in her later novel *That Long Silence* (1988) and Deshpande's concern is the woman and her external quest. Her contribution lies in the heightened sensitivity and the fresh insights that she brings to bear on the good types and situations. As Elaine Showalter posits three phases in the growth of feminist tradition, "Limitation, Protest, and self-discovery", Shashi Deshpande's novels are directly related to all these phases. It encapsulates her artistic vision of femininity as alienating. In her novel, she explores and exposes the long-suppressed wail for the woman imprisoned within the four walls of domesticity. Shashi Deshpande has dealt graphically with the problems that confront a middle-class educated woman in the patriarchal Hindu Society. The present paper is an honest attempt to study the various images of the woman portrayed by Shashi Deshpande in her novel *Dark Hold No Terror*. The women portrayed by Shashi Deshpande in her novel can be classified into three groups or types who recur with subtle changes. The first type belongs to the heroine's mother or mother figure. Saru's mother (*Dark Hold No Terror*) as well as Jaya's mother (*That Long Silence*), Indu's mother (*Roots and Shadows*) are the representative of this class. They represent the traditional, religious ethos and confirm to the Manu code that the woman should be under the control of the father in maidenhood, the husband in her youth, and sons during her old age.

In the present novel Kamalatai, Saru's mother is a representative of this class. She is an old-fashioned woman who observes the fast and does pooja every day. She is very rigid about her brahminical rites and rituals. She follows Sita's and Savitri's roles. She often hates her daughter, Saru just

for she is a daughter. When Saru was growing up her mother used to warn her that, She should be careful now about how she behaves, she would tell her, don't come out in her petticoat like that, she had to be ashamed of herself even in the presence of her father. When Saru is playing in the sun her mother said ;

“Don’t go out in the sun .you will get even dark.

Who cares?

We have to care if you don't. We have to get you married.

I don’t want to get married

Will you live with us all your life?

Why not?

You can’t

And Dhruva?

He is different. He is a boy.

*(Dark Holds No Terror P-45)*

When Saru achieved 1<sup>st</sup> class in XIIth and wanted to do medicine, her father asked her what subjects will she take for B.Sc? And she declares that she will not go to B.Sc. She wanted to do medicine. It was an unexpected response to her traditional mother, who replied that

“And don’t forget, medicine or no medicine,

doctor or no doctor,

You still have to get married,

spend money on her wedding” She adds

“Let her go for a B.Sc. can get her married in two years and

our responsibility will be over”(P44)

When Saru achieved 1<sup>st</sup> class in XIIth and wanted to do medicine, her father asked her what subjects will she take for B.Sc? And she declares that she will not go to B.Sc. She wanted to do medicine. It was an unexpected response to her traditional mother, who replied that

“And don’t forget, medicine or no medicine,

doctor or no doctor,

You still have to get married,

spend money on her wedding” She adds

“Let her go for a B.Sc. can get her married in two years and

our responsibility will be over”(P44)

Saru's marriage is a burden for them. But for Saru, to get married and end up doing just what her mother did. It seemed her not only terrible but damnable. When Saru's mother is planning her marriage. She falls in love with a young writer called Manohar of the other caste. Her mother asks her,

what caste is he?

I don’t know.

A Brahmin?

Of course not.

Then, cruelty.

His father keeps a cycle shop

Oh, so they low caste people, are they? (P-96)

When Saru decides to marry Manu, the other castes young poet, mother comments that she knows all these love marriages. According to her, it is love for a few days and quarrels all the time. She warns Saru that don't come back to them tell them anything. She did forgive Saru till her death. Even when she was suffering from cancer and was suggested to go to her daughter. She replied that "Daughter? I don't have any daughter. I had a son and he died. Now I am Childless."

Mavashi (Sudhir's Mother) Mai-kaki calls her a brave woman, a woman of courage as she never complained and told anyone what was happening to her like her mother who was a deserted woman by her husband only a few years after marriage, who never complained who would accept as "It is my luck, my fate. It was written on my forehead (p 70). Saru ironically says that it was so much easy for women in those days to accept, not to struggle because they knew there was nothing else for them and they would call, it was their fate.

The second type of suffering woman is the converse of the traditional type. Here, the woman is bolder, more self-reliant, and more rebellious. She can not conform to Sita's version of womanhood and consciously indented toward what could be designated as radical feminist ideology. Like Ibson's Nora (Doll's House) kind of woman is very rare in Shashi Deshpande's Novel. In the present novel, Saru's friend and classmate Nalu hold a feminist ideology of life for the sake of which she chooses to lead an independent life as a spinster. She accepts the job of a school teacher. Saru likes Nalu because she never talks about family, children, and family problems.

The third type of woman characterizes the woman in between. Most of Deshpande's heroines belong to this category. This woman is neither traditional nor radical in her ideas and practices. She might walk out of her home in protest against her suffering. But gradually realizes that walking over agonies even after she escapes her marital home. Indu in *Roots and Shadows* leaves her husband to seek refuge in her ancestral home, but she is unable to accept her fate as an ordinary woman might do. This heroine suffers more because they are aware of the escape routes of two other types of women the traditional and the radical but hesitate to choose those options.

The novel is written in flashback technique. Years on Sarita still remembers her mother's words uttered when as a little girl she was unable to save her younger brother from drowning. Now her mother is dead and Sarita returns to the family home, ostensibly to take care of her father. Now she recollects her memories in cinematic technique. From childhood itself Saru is rebellious. She does not like her mother's rites and rituals and traditions of belief. Saru says "If you are a woman. I don't want to be one (P-63). She thinks that she had to study hard to be successful and answer their question "Why was I alive?" When Sarita and Manu were talking about marriage and separation from her family. Manu remarks that it must be suffering and painful to you. She tells him that she is already detached from her family. It is quite easy to cut the umbilical cord and separate the baby from the mother. It's as if nature knows the child must be detached from the parent. So there will be no trauma, no bleeding for her. Thus, Saru the protagonist of the

novel, who is a medical student, is not representing the traditional *Sita* Image. In her day-to-day life also Saru tries to be modern in her thought and action. When she listens to Madhav's comment on her mother She is a very old-fashioned woman. She imagines that Will Abhi think "My mother is old fashioned ?" but she says ;

I am not old-fashioned.

I take great care not to be left behind.

My legs are weary, my heart is numb, my mind is blank, but I keep marching on.

I have even cut my hair.....

However, at the end of the novel, Saru realizes herself and learns to live up to the challenges. Saru decides to face her husband and not run away. Indu and Jaya also decide to confront their husband and talk the matter out to arrive at a solution. Thus Saru wish wishes not to be like her mother. She always tries to be not only a wife and mother but also a successful lady doctor. The darkness of the past and tradition holds no terror for her.

### **Conclusion**

While concluding, we can say that Shashi Deshpande has portrayed images of the woman from the middle-class Indian Woman. Her writing is deeply rooted in the culture where she lives and it remains sensitive to the common everyday events and experiences. The woman characters in her novel are placed between contradictory identities of tradition and modernity, family and profession, and culture and nature.

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## **A journey of Responsible tourism to Sustainable tourism –A case study**

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### **Abstract**

Traditionally one of the most sought-after hobbies of a person is to travel and visit new places. Tourism is a social, cultural, and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business or professional purposes. People travel to different places of the world, to see great buildings, monuments, works of art, learn new languages, experience new cultures, enjoy pristine nature and to taste different cuisines. The definition of tourism as per the Wikipedia is 'Tourism is travel for pleasure or business; also the theory and practice of touring, the business of attracting, accommodating, and entertaining tourists, and the business of operating tours.' Though this diversity and novelty of different locations, attracts people around the world to visit these places, there are consequences involved which as well may not be good always. Responsible Tourism was defined in Cape Town in 2002 alongside the World Summit on Sustainable Development. This definition, the Cape Town Declaration is now widely accepted and has been adopted by the World Travel Market in 2007 for World Responsible Tourism Day. Responsible Tourism is about "making better places for people to live in and better places for people to visit." Responsible Tourism requires that operators, hoteliers, governments, local people and tourists take responsibility, take action to make tourism more sustainable. We have tried to discuss the Responsible tourism in this paper and the different aspects of it and its relevance in today's world.

**Keywords :** Tourism, Sustainable, Responsible tourism, Development.

### **Introduction :**

Responsible Tourism is about using tourism to make better places for people to live in and better places for people to visit, in that order. Though tourism for tourists is to visit new places, know new things, learning experience from the things which are not in their proximity, it is different for the people from those places. It given economic opportunity to those people which opens the door for better life, opportunity to upgrade their standard of life. It is different from sustainable tourism in that it focuses on what people, businesses and governments do to maximize the positive economic, social and environmental impacts of tourism. It is about identifying the important issues locally and addressing those, transparently reporting progress towards using tourism for sustainable development. According to the World Tourism Organization, a tourism product is, "a combination of tangible and intangible elements, such as natural, cultural and man-made resources, attractions, facilities, services and activities around a specific center of interest which represents the core of the destination marketing mix and creates an overall visitor experience including emotional aspects for the potential customers. A tourism product is priced and sold through distribution channels, and it has a life-cycle".

### **Objective:-**

1. To study the responsible tourism
2. The status and methods of responsible tourism

### **Methodology:-**

The secondary data has been used for this paper. The data is collected from the Tourism Ministry of India, Wikipedia and other sources. Analysis of the data is done by statistical technique.

### **Discussion:-**

In earlier days, the tourism was more of limited to wealthy class who can easily afford it. The Kings or governments used to finance it for study purpose travel to different part of the world to places which had work of art, monuments, to learn new cultures, languages, traditions etc. however as time changed and the definition of the tourism also changed. Many parts of the world that were once hard to reach are now easily accessible, and the cost of travel is considerably lower nowadays compared to last century. Also the rise in popularity of social media channels encourages and inspires people to see the world more than ever. It became easily available and accessible to ordinary people to visit different places on their own. Various sources of transport and the innovation and availability of newer ways of transportation, access to these sources is easier now than before. The globalization played major part in enabling, encouraging and developing the tourism industry. The world started to come closer. The railway or Air travel became easily available from and to different locations which made it easy to reach destinations easily without more intermediate stops. The speed of travel increased. It became cheaper, options to travel to locations as

per convenience i.e. according to season or suited to the availability of vacations. There are dedicated ministries or departments of governments of countries established to encourage tourists to travel and visit places from their country. They started promoting the tourism by advertising the tourist places of their countries on various social sites in online or offline mode. This has encouraged the tourism industry to increase manifold and provide economical and world class services to tourists around the world. The diplomatic relations between most of the countries became better and the boundaries made easily available and accessible between them. The tourism sector is an important driver of economic growth and job creation across the world, accounted for approximately 10% of the global GDP. More and more countries are turning to tourism for economic growth, and travel in itself has never been as accessible to as many people as it is today.

“Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy, study and appreciate nature accompanying cultural features – both past and present, that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local populations” (Ceballos-Lascurain, 1993) (The official definition adopted by the IUCN in 1996). ‘Overtourism’ is when a landmark/destination receives excessive visitor numbers that are detrimental to the local community, wildlife, or tourist experience. There are obvious benefits of tourism, but tourism of this extent has strong negative effects. ‘Overtourism’ can cause damage to infrastructure; unrest with the locals due to the inconvenience of masses of tourists; and can also affect the experience for the tourists themselves. Tourism has also made use of history, as historic sites attract cultural tourists and collectors of iconic images. Indigenous peoples can use their customs, traditions to promote and develop tourism in their region. The heritage worldwide needs to be conserved and protected e.g. Wildlife in Africa, India, Australia, Monuments in America, Europe, Beaches, biodiversity across the different part of the world etc. The awareness among the tourist needs to be improved. Behavior can be more or less responsible and what is responsible in a particular place depends upon environment and culture. As this industry developed and tourism became one of the major economic activity for people around the world, the diverse consequences of this were observed and having impact. This made the thinkers and the parties involved to think on these consequences and how can these be avoided or the required course correction which brought the concept or term of Responsible tourism. Responsible Tourism is about using tourism to make better places for people to live in and better places for people to visit, in that order. It focuses on what people, businesses and governments do to maximize the positive economic, social and environmental impacts of tourism. It is about identifying the important issues locally and addressing those, transparently reporting progress towards using tourism for sustainable development. Responsible Tourism is the tourism which would be beneficial for both the tourists as well as those locals who live and provide services at the tourist place. It should not harm overall environment of the tourist places, It includes economies, culture, social environment, nature, animals and their habitats. It is expected to preserve and have positive impact on the social, economic and environment. It is about identifying the important issues locally and addressing those, transparently reporting progress towards using tourism for sustainable development.

The representatives of tour operators, entrepreneurs in the tourism industry, national parks, provincial conservation authorities, ministries, and tourism authorities of governments from across the different countries, tourism professionals, NGOs and hotel groups and other tourism stakeholders, from 20 countries in Africa, North and South America, Europe and Asia; having come together in Cape Town to consider the issue of Responsible Tourism in Destinations have agreed this declaration. The World Travel Market has adopted the Cape Town Declaration definition of Responsible Tourism for its World Responsible Tourism Day which encourages the industry to take responsibility for making tourism more sustainable and demonstrate their responsibility.

Recognizing the importance of the World Tourism Organization’s Global Code of Ethics, which aims to promote responsible, sustainable and universally accessible tourism and sharing its commitment to responsible and sustainable world tourism and its STEP initiative with UNCTAD, which seeks to harness sustainable tourism to help eliminate poverty ( Harold Goodwin, 2014 ).

The Cape Town Declaration recognizes that Responsible Tourism takes a variety of forms, it is **characterized by travel and tourism which:**

1. Minimizes negative economic, environmental and social impacts.
2. Generates greater economic benefits for local people and enhances the well-being of host communities, improves working conditions and access to the industry.
3. Involves local people in decisions that affect their lives and life changes.
4. Makes positive contributions to the conservation of natural and cultural heritage, to the maintenance of the



world's diversity.

5. Provides more enjoyable experiences for tourists through more meaningful connections with local people, and a greater understanding of local cultural, social and environmental issues.
6. Provide access for people with disabilities and the disadvantaged.
7. Is culturally sensitive, engenders respect between tourists and hosts, and builds local pride and confidence.

**Conclusions:**

Travelling responsibly doesn't only have a positive impact in the destinations and communities we visit, but it provides us with enriching experiences that often stay with us and become the highlight in our memories. Travelling is a way to open our minds to the world and the realization that we are all different but we're also the same. And doing it responsibly gives us an opportunity to learn through meaningful connections with local people and to get a better understanding of local cultural, as well as social and environmental issues. Behavior can be responsible and what is responsible in a particular place depends upon environment and culture. People around the world need to take responsibility to make the tourism sustainable which is the final goal. Make the others aware of the responsibility towards it. Increase the awareness among the people. Avoid any negative impact on the destination, not only as a place but the whole ecosystem of that location should be respected and preserved and enjoyed.

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# IMPACT OF IRRIGATION ON CHIEF CASH CROP CROPPING PATTERN IN KOLHAPUR DISTRICT

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## Abstract:

Cropping patterns of any region are impacted largely by irrigation input. And cropping pattern directly affects the agricultural development of the region. In the present research work, variation is in the topography from west to east and this factor has been affected on the irrigation scenario of the region. For the present research work, using socio-economic abstract and district agricultural abstract secondary data were used. Two objectives have been taken for the research. To calculate irrigation area percentage formula was used and Pearson's formula was used for correlation analysis. Change detection is shown by choropleth maps.

**Key words:** Irrigation, Cropping pattern, Spatio-temporal changes, correlation studies.

## Introduction:

75 percent of India's population are living in rural areas and most of them have depended on agriculture. Agricultural development is the core part of all other planning and development. Agricultural development is impacted by the irrigation facilities on a large scale because irrigation is a basic and very important input in agricultural development. It is obvious that viewed as an input in rural development not merely agricultural production irrigation has other points of contact with development, and economics as the irrigation in the Indian rural economy begins to move from the wings towards the centre of the stage (Rao, V. M. 1976). Irrigation not only impacts agriculture as a fundamental input but also impacts on agricultural economics also. The distribution of irrigation in any region has directly impacted the agricultural scenario of this region. According to the availability of the irrigation facilities, the cropping pattern also seems to change. In the present research work, there is unevenness in the irrigation facilities, because even though high rainfall in the western part of it, there is fewer irrigation facilities and in the eastern part of the study region there is low rainfall as compared to the western part or western ghat region. This situation of irrigation is developed by the topography of the region.

A cropping pattern means the proportion of land under crop at a different point of time. In the present research region, there is differentiation in the cropping pattern according to irrigation facilities.

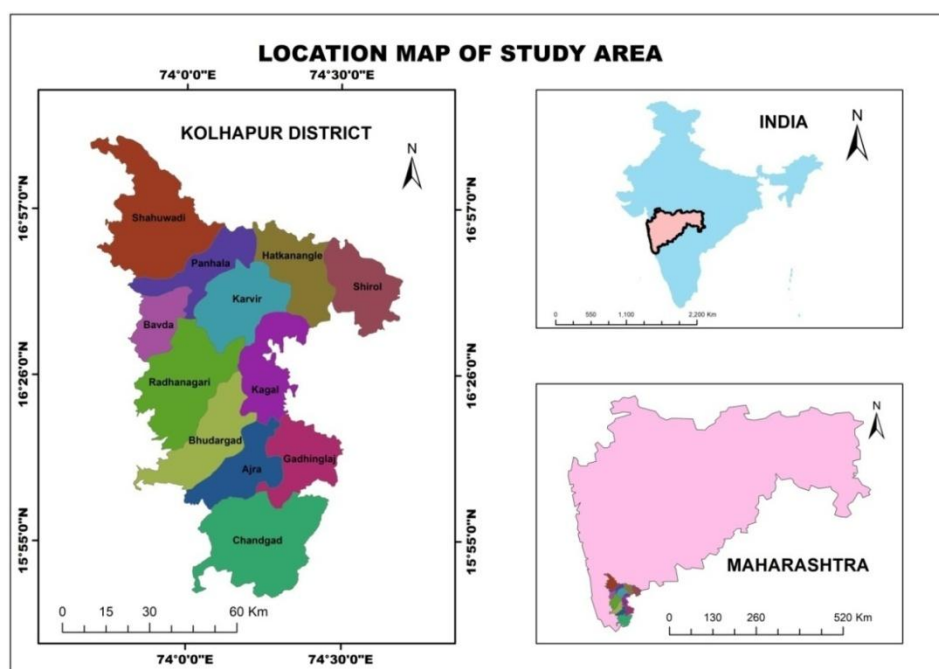
## Objectives:

The main objectives of research are as follow.

1. To study the spatial distribution of the irrigation in study region and to analyze impact of irrigation on spatio-temporal cropping pattern.
2. To establish the correlation between irrigation and cropping pattern of Sugarcane, Oilseeds and fruits and vegetables crops.

## The Study Area:

The Kolhapur district is lying in the south-western part of the Maharashtra state, extending from 15°43' N latitude to 17°17' N latitude and 73°40' east to 74°42' east longitude and it covers the 7685 km<sup>2</sup> area. It has boundaries of Ratnagiri in the west, Sindhudurg in the South-west, Karnataka state on the south and south-east, Sangli District on the East and South-east. This district contains 12 tahsils and this is divided into three agro-ecological divisions or parts. i.e. western ghat region, middle plateau region and eastern plain region. The total population of the district is 3876001 (2011 census).



**Figure 1**

#### **Database and Methodology:**

Present research work is based on secondary data. Required data for it is collected from socio-economic abstract, socio-economic review, district gazetteer, district agricultural census, district and state-level agricultural epitomes,

Secondary data were processed by using a statistical method. For calculation of the percentage of the cropping pattern, a standard formula is used.

$$PCA = \frac{\text{Cropped area of X crop in component areal unit}}{\text{Cropped area of X crop in entire region}} \times 100$$

Where,

PCA = Percentage of Cropping Area

Karl Pearson's method was used to calculate correlation coefficient between irrigation and cropping pattern

$$r = \frac{\sum xy - \frac{\sum x \sum y}{N}}{\sqrt{\sum x^2 - \frac{(\sum x)^2}{N}} \sqrt{\sum y^2 - \frac{(\sum y)^2}{N}}}$$

Where,

X= Value of individual Variable

y = Index of Total Variable

N = Number of Observation

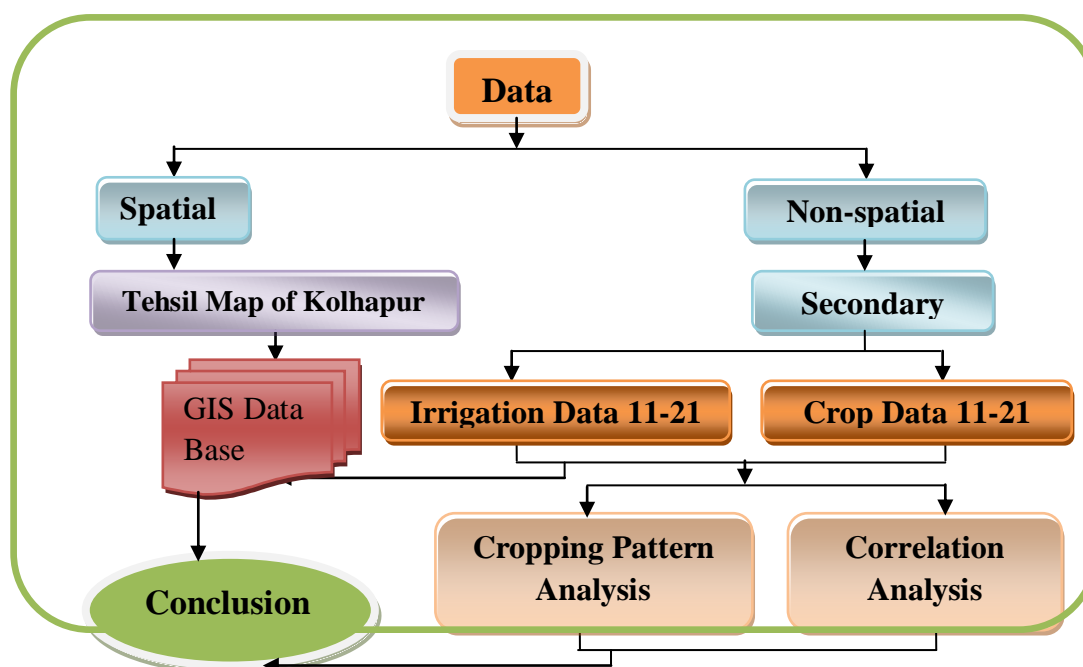


Figure 2 Methodology Chart

## 5. Results

Table 1. Area under Chief Crops in Entire Region (area in Hectare)

Tehsils	2011	2021
Shahuwadi	56007	32303
Panhala	33672	34984
Hatkanangale	60005	62131
Shirol	48631	34201
Karvir	63369	50794
Bavda	31545	9269
Radhanagari	38824	32561
Kagal	54555	60233
Bhudargad	35322	40666
Ajra	46353	30233
Gadhinglaj	47671	50802
Chandgad	59622	49839
Total	575576	488016

Source: Compiled from various agricultural data sources.

As mentioned earlier there is variation in the physical, socio-economic factors in study region. This variation also affected on the cropping pattern from west to east because topographical differentiation as well as differentiation in use of agricultural inputs such as fertilizer consumption, mechanization. But the very important input which is affecting largely on the cropping pattern in study region is irrigation. Variation in irrigation has been impacted large scale from tahsil to tahsil. Table 1 reveals that, in 2011 the area under selected chief crops was 575576 ha., while in 2021 the area under same crops was 488016 ha.

### Irrigation and Cropping Pattern of Sugarcane

Table 2 shows the highest cropped area under sugarcane in 2011 was in Karveer, Shirol, and Hatkanangale tehsils and lowest area under sugarcane in the same year was Bhudargad, Ajra and Gadhinglaj tehsils.

**Table 2. Irrigation and Cropping Pattern of Sugarcane Crop (area in Hectare)**

Tehsils	2011			2021		
	Cropped area in Hectare	% to Total Cropped Area	% of irrigated area	Cropped area in Hectare	% to Total Cropped Area	% of irrigated area
Shahuwadi	4772	8.52	55.99	6500	20.12	100.0
Panhala	9404	27.93	100.00	12248	35.01	100.0
Hatkanangale	13989	23.31	100.00	22165	35.67	100.0
Shirol	17883	36.77	100.00	23117	67.59	100.0
Karvir	20936	33.04	95.22	24083	47.41	100.0
Bavda	10244	32.47	100.00	3079	33.22	100.0
Radhanagari	8339	21.48	88.01	10444	32.08	100.0
Kagal	8212	15.05	100.00	23589	39.16	100.0
Bhudargad	3362	9.52	100.00	6950	17.09	100.0
Ajra	3264	7.04	72.43	4735	15.66	100.0
Gadhinglaj	4984	10.45	100.00	9298	18.30	100.0
Chandgad	10280	17.24	80.54	11544	23.16	100.0
Total	115669	20.10	93.95	157752	32.33	100.0

Source: Socio-economic review and DSA 2011, 21

**Table 3. Classes of percentage of total sugarcane cropped area 2011**

Class	Cropped Area in %	Tehsil	Correlation with Irrigation
High	≥ 26.86	Karveer, Shirol, Panhala, Bavda	-0.08
Moderate	16.95 – 26.85	Hatkanagale, Radhanagari, Chandgad	0.93
Low	≤ 16.94	Shahuwadi, Bhudargad, Ajra, Kagal, Gadhinglaj	0.62

Source: Socio-economic review and DSA 2011.

In 2011 Karveer (33.04%), Shirol (36.77%), Panhala (27.93%) and Bavda (32.47%) tehsils were under a high percentage of the cropped area. Low percentages under the Sugarcane cropped area in the same year were examined in shahuwadi (8.52%), Bhudargad (9.52%), Ajra (7.04%), Kagal (15.05), and Gadhinglaj (10.45%). If the high cropped area tehsils under the sugarcane cropped area in as mentioned in table 3, there is weak correlation examined with irrigation, while in the moderate class category cropped tehsils was found a strong correlation with irrigation and moderate correlation detected with a low class of cropped area (table 3 and figure 3).

**Table 4. Classes of percentage of total sugarcane cropped area 2021**

Class	Cropped Area in %	Tehsil	Correlation with Irrigation
High	≥ 50.28	Shirol	1
Moderate	32.97 – 50.27	Karveer, Panhala, Bavda Hatkanagale, Kagal	0.95
Low	≤ 32.96	Shahuwadi, Radhanagari, Bhudargad, Ajra, Chandgad, Gadhinglaj	0.82

Source: Socio-economic review and DSA 2021

Table 4 and figure 3 reveal under the high cropped area in 2021 for sugarcane crop was only one tehsil i.e. Shirol (67.59%). Low percentage area under sugarcane crop examined in Shahuwadi (20.12%), Radhanagari (32.08%), Bhudargad (17.09%), Ajra (15.66%), Chandgad (23.16%) and Gadhinglaj (18.30%) tehsils. Three categories of cropped areas have gone under a strong positive correlation with irrigation.

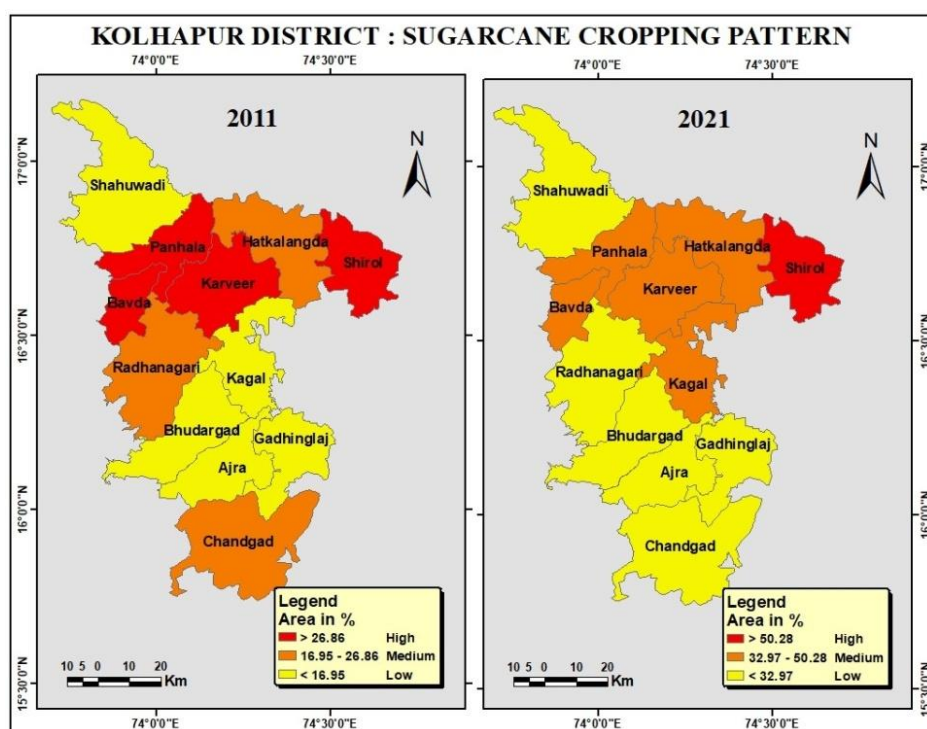


Figure 3

### Irrigation and Cropping Pattern of Oilseeds

Oilseeds are other major crops in the research area. It is playing a major role in the agricultural development of the region. Table 5 examines in 2011 highest cropped area was examined in Hatkanangale (23159hec.) and shirol (16923 hec.) tehsil. While the lowest area detected Bavada tehsil i.e 687 hectares only. In 2021 highest area under oilseeds was 27205 hec. In hatkanangale tehsil. And lowest was examined in Bavda tehsil i.e 165 hectares.

Table 5. Irrigation and Cropping Pattern of Oilseeds Crops (area in Hectare)

Tehsils	2011			2021		
	Cropped area in Hectare	% to Total Cropped Area	% of irrigated area	Cropped area in Hectare	% to Total Cropped Area	% of irrigated area
Shahuwadi	11304	20.18	0.01	1153	3.57	3.47
Panhala	2170	6.44	0.09	5881	16.81	1.53
Hatkanangale	23159	38.60	0.63	27205	43.79	36.41
Shirol	16923	34.80	0.66	4420	12.92	28.28
Karvir	11936	18.84	12.31	10481	20.63	25.55
Bavda	687	2.18	0.29	165	1.78	89.70
Radhanagari	3747	9.65	0.03	1792	5.50	52.40
Kagal	13762	25.23	4.84	17470	29.00	0.35
Bhudargad	3441	9.74	0.09	5986	14.72	26.03
Ajra	9839	21.23	0.12	2983	9.87	36.17
Gadhinglaj	15531	32.58	2.07	23132	45.53	8.86
Chandgad	9726	16.31	0.01	4582	9.19	0.70
Total	122225	21.24	2.24	105250	21.57	18.84

Source: Socio-economic review and DSA 2011, 21

**Table 6. Classes of percentage of total Oilseeds cropped area 2011**

Class	Cropped Area in %	Tehsil	Correlation with Irrigation
High	$\geq 26.46$	Hatkanagale, Shirol, Gadhinglaj	0.28
Moderate	14.32 – 26.45	Shahuwadi, Karveer, Kagal , Ajra, Chandgad	0.07
Low	$\leq 14.31$	Panhala, Bavda, Radhanagari, Bhudargad, ,	-0.21

**Source:** Socio-economic review and DSA 2011

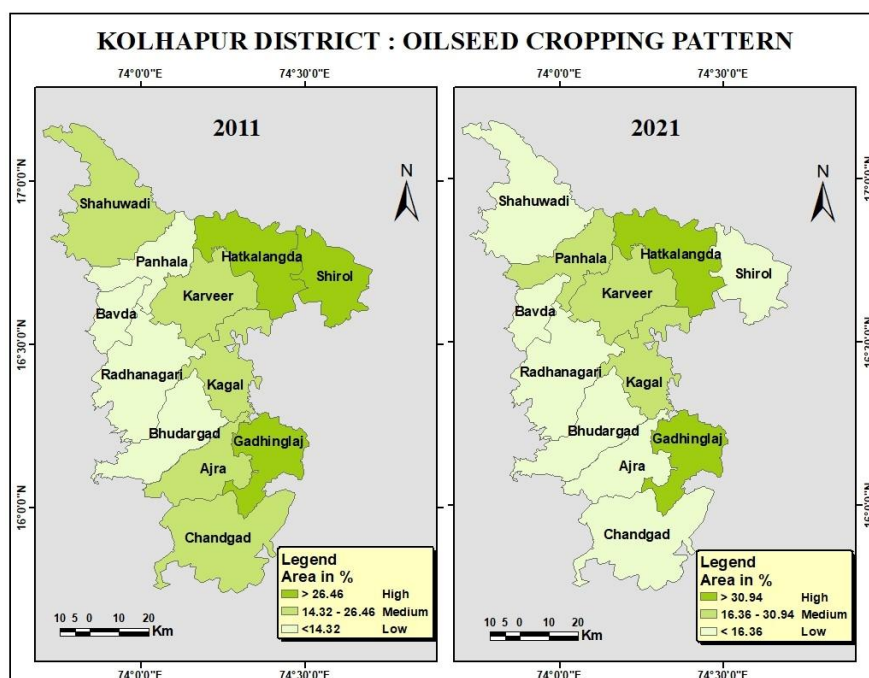
Table 6 and figure 4 analyze that under the high class cropped area Hatkanagale, Shirol and Gadhinglaj tehsils (more than 26.46 percent) were found. While under the low class cropped area Panhala, Bavda, Radhanagari and Bhudargad tehsils (less than 14.31%) were examined. No correlation was detected in 2011 between irrigation and cropping patterns.

**Table 7. Classes of percentage of total Oilseeds cropped area 2021**

Class	Cropped Area in %	Tehsil	Correlation with Irrigation
High	$\geq 26.46$	Hatkanagale, Gadhinglaj	0.66
Moderate	14.32 – 26.45	Panhala, Karveer, Kagal	0.23
Low	$\leq 14.31$	Shahuwadi, Bavda, Radhanagari, Bhudargad, Ajra, Chandgad, Shirol	0.02

**Source:** Socio-economic review and DSA 2021

Table 7 and figure 4 reveal under the high class of cropped area of oilseeds Hatkanagale and Gadhinglaj tehsils detected. While in the low class cropped area has been gone under Shahuwadi, Bavda, Radhanagari, Bhudargad, Ajra, Chandgad and Shirol tehsils. Hatkanagale and Gadhinglaj tehsils were examined with moderate correlation, while the remaining tehsils found a weak correlation between irrigation and cropping patterns.



**Figure 4**

### **Irrigation and Cropping Pattern of Fruits and Vegetable crops**

In study region on the western ghat region tehsils and another remaining tehsils also leading in growing the fruits and vegetable. Favourable climatic and soil conditions are responsible to ripen the fruits and vegetables. Table 8 reveals highest area under crop was found 6427 hec. in Chandgad tehsil in 2011 and 7169 in Chandgad tehsil in 2021. Lowest area under fruits and vegetable was detected 886 hectare in Bavda tehsil in 2011 and in 2021 Panhala tehsil i.e. 81 hectare.



**Table 8. Irrigation and Cropping Pattern of Fruits and Vegetable crops (area in Hectare)**

Tehsils	2011			2021		
	Cropped area in Hectare	% to Total Cropped Area	% of irrigated area	Cropped area in Hectare	% to Total Cropped Area	% of irrigated area
Shahuwadi	3048	5.44	19.85	514	1.59	73.93
Panhala	1229	3.65	39.63	81	0.23	100.00
Hatkanangale	2006	3.34	56.13	333	0.54	99.40
Shirol	1202	2.47	123.04	119	0.35	100.00
Karvir	1667	2.63	75.88	139	0.27	100.00
Bavda	886	2.81	26.64	778	8.39	40.10
Radhanagari	1763	4.54	20.14	152	0.47	69.74
Kagal	2210	4.05	79.32	368	0.61	93.75
Bhudargad	1355	3.84	29.23	4101	10.08	66.89
Ajra	5782	12.47	9.82	4983	16.48	7.87
Gadhinglaj	2289	4.80	38.36	1826	3.59	45.45
Chandgad	6427	10.78	10.16	7169	14.38	13.20
Total	29864	5.19	32.82	20563	4.21	32.70

Source: Socio-economic review and DSA 2011, 21

**Table 9. Classes of percentage of total fruits and vegetables cropped area 2011**

Class	Cropped Area in %	Tehsil	Correlation with Irrigation
High	$\geq 9.13$	Ajra, Chandgad,	0.98
Moderate	5.80 – 9.12	-	0.0
Low	$\leq 5.79$	Hatkanangale, Gadhinglaj, Panhala, Karveer, Kagal, Shahuwadi, Bavda, Radhanagari, Bhudargad, Shirol	-0.01

Source: Socio-economic review and DSA 2011

Table 9 and figure 5 shows the highest area under the high class of fruits and vegetables analyzed in Ajra and Chandgad tehsil. And remaining all tehsil has come under low class. A strong positive correlation was analyzed in Ajra and Chandgad tehsil between irrigation and cropping patterns. While remaining tehsils examined week correlation between these two-component.

**Table 10. Classes of percentage of total fruits and vegetables cropped area 2021**

Class	Cropped Area in %	Tehsil	Correlation with Irrigation
High	$\geq 11.6$	Ajra, Chandgad,	0.86
Moderate	5.64 – 11.5	Bavda, Bhudargad	1
Low	$\leq 5.63$	Hatkanangale, Gadhinglaj, Panhala, Karveer, Kagal, Shahuwadi, Radhanagari, Shirol	-0.21

Source: Socio-economic review and DSA 2021

Table 10 and figure 5 reveals under the high class cropped area of fruits and vegetable Ajra and Chandgad tehsil examined i.e. more than 11.6 %. While in low-class cropped areas Hatkanagale, Gadhinglaj, Panhala, Karveer, Kagal, Shahuwadi, Radhanagari and Shirol tehsils were detected. Strong positive correlations were analyzed in Ajra, Chandgad, Bavda and Bhudargad tehsil. The remaining tehsils were analyzed week correlation in 2021.



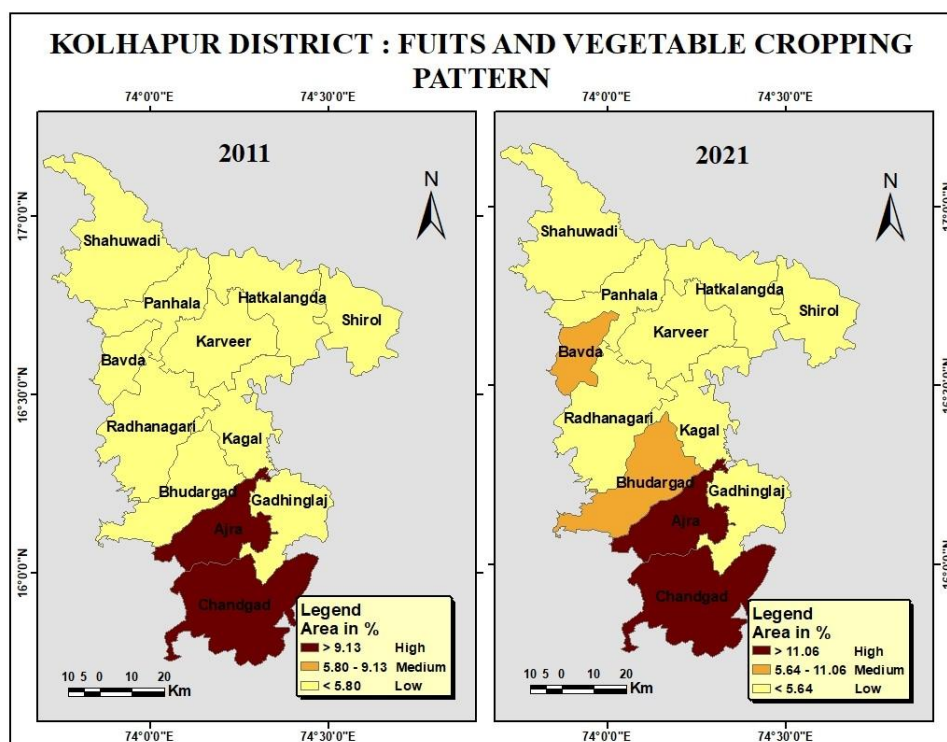


Figure 5

### Conclusion:

In 2011 the sugarcane crop in the same year under the Low and Moderate class category found a moderate and strong correlation. It shows in 2011 most of the tehsils under the sugarcane crop has been affected by irrigation input. In the year 2021 all the tehsils under the sugarcane cropping pattern impacted by the irrigation. In this decade Panhala, Karveer and Bavda tehsil has gone under the medium category of sugarcane cropping pattern, Because of acquiring area of sugarcane crop by other crops. This was a major change found for the sugarcane crop area.

Under the area of oilseed crop, all the tehsils were found weak correlation with the irrigation, because most of the oilseed crops depend on rainfall and grow mainly rainy season in the study region in 2011. In the year 2021 except for hatkanangale and Gadhinglaj tehsils, all tehsils have not been impacted by the irrigation input. Gadhinglaj and Hatkanangale have a rainfed area and because of this reason, this tehsil was irrigated cropping pattern. In this decade the crop area of oilseed crops has decreased in Shirol, Chandgad and Ajra tehsils and change detected in these tehsils because of another crop might have been occupied this area.

For the crop of fruits and vegetables, two tehsils in 2011 were found impacted by the irrigation factor, and in 2021 four tehsils were impacted by irrigation. In this decade two tehsils were included in the category of irrigation impact. Other tehsils were depended on rainfall. In this decade area under fruits and vegetable crops increased in the Bavda and Bhudargad tehsils because of an increase in the irrigation facilities. Eventually, it is concluded that the three crops in the years 2011 and 2021 have been impacted in most of the tehsils by irrigation in the study region. Another important analysis was found in the change detection in the cropped area.

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<https://urlzs.com/Pyxkn>

# The Study of Cultivators And Cattles In Satara District

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## Abstract

The cultivator and Cattle is important factor of agriculture, having production of dairy farming. In fact cattle are group of different animals that are kept for milk as well as meat. Whereas, cultivator is a person who mainly engaged in agriculture activities and also in raising cattle animals for purpose of milk as well as meat. Therefore, cultivator and Cattle has correlated to each other observing in rural region from long years ago. Today, cattle rearing are part of commercial farming as well as dairy farming. Hence, study of Cultivator and Cattle is significant. This paper is an attempt to analyze the relation between Cultivators and Cattles in Satara district. Spearman's Rank order method is used for assesses the correlation of between Cultivators and Cattles. The correlation between Cultivators and Cattle in Satara District is  $r = 0.79$ . It is strong positive or direct correlation.

**Key words:** chemical fertilizer, cultivator, cultivation, Correlation.

## Introduction

The India is significant the agricultural country, where more people are directly and indirectly involved in agricultural sector. This sector is largest food grains provider of big population. The cultivator and Cattle is important factor of agriculture, having production of dairy farming. In fact cattle are group of different animals that are kept for milk as well as meat. Whereas, cultivators are a person who mainly engaged in agriculture activities and also in raising cattle animals for purpose of milk as well as meat. Therefore, cultivator and Cattle has correlated to each other observing in rural region from long years ago. Today, cattle rearing are part of commercial farming as well as dairy farming. The Satara district is situated in western Maharashtra where, agricultural is highly developed in all parts of district. Where, about 521786 numbers of cultivators have reared 1209202 cattles in 2019 (as report of Livestock Census of Satara District, 2019).

## Study Area

The Satara district selected for the study the Cultivators and Cattle's. Satara district is located mainly in south-western part of Maharashtra, between 17°5' to 18°11' North latitude and 73°33' to 74°54' East longitude. The Krishna River, Koyana River, Yerala River, Bamnoli and Mahadeo hill ranges, Aagashive and Sitabai are some significant land features in the district. According to 2011 Census, 30,03,922 persons are lived in the district. This district is covered 10,484.0 Sq. k.m with 742 m (2,434 ft) from the sea level elevation in Maharashtra. There is received annual rainfall from 303.6 mm to 3450.7 mm. This district has eleven tahsils and 1739 villages. Eleven tehsils are Man,Khandala,Wai,Phaltan, Koregaon, Satara, Karad,Patan, Jaoli,Mahabaleshwar, Khatav, etc.

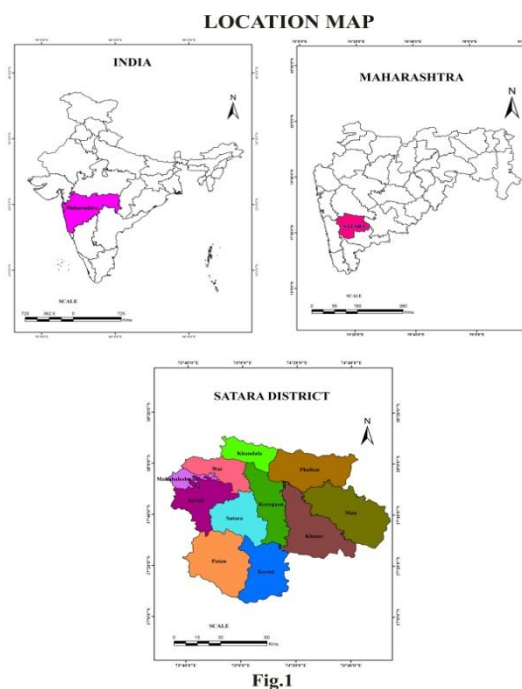
## Objectives

The main objectives of this research paper are as under:

To study the spatial distribution of Cultivators in the study region.

To study the spatial distribution of Cattle's in the study region.

To examine the correlation between Cultivators and Cattle's in the study region.



### Database And Methodology

The paper is mainly based on the secondary data sources. To complete the objectives data regarding Cultivators and Cattle's area of Satara District is taken from District Census Handbook (2011) and Cattle Census (2019), Statistical abstract of Satara district. The collected data are processed to analyze the Cultivators and Cattle's in Satara District. Ms-excel are used for preparing the table and Arc GIS 10.5 have used for shown the spatial distribution of Cultivators and Cattle's in Satara District. The tahsils of Satara District are grouped into three categories i.e. high, moderate and low Cultivators on the basis of simple statistical method. To analyze spatial pattern of Cattles, the same technique is applied for calculation. The Spearman's Rank Order method is used for analyzes the correlation between Cultivators and Cattle's.

#### Formula:-

#### Rank Order Spearman's Method

$$R = 1 - \frac{\sum \sum D^2}{N^2 - N}$$

### Spatial Pattern Of Cultivators

About 52, 1,786 cultivators are cultivated several crops in Satara district. But, the tahsil level cultivators different from tahsil to tahsil it ranges from 9341 to 81943. All 11 tahsils of Satara district are divided into three categories as following: (in table no. I and Fig. 2)

**Table No. I**

**The Cultivators In Satara District**

Sr. No.	Name of Tahsil	Cultivators (In Percentage)
1	Mahabaleshwar	1.79
2	Wai	6.82
3	Khandala	5.30
4	Phaltan	11.48
5	Man	11.06
6	Khatav	11.93
7	Koregaon	9.01
8	Satara	9.87
9	Jaoli	4.31
10	Patan	12.73
11	Karad	15.70
Total		100.00

Source: Census Handbook of Satara District (2011)

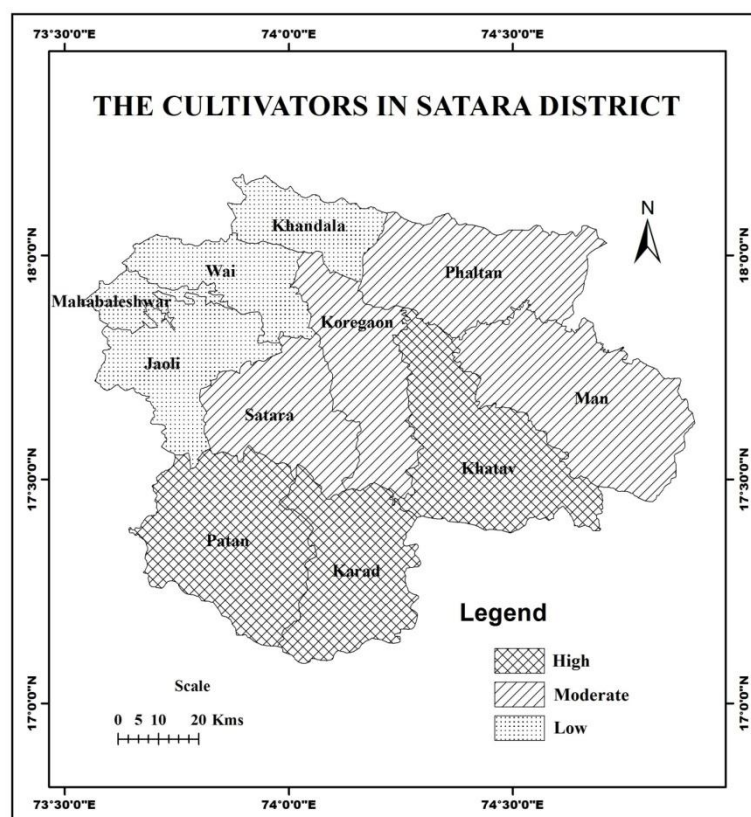


Fig. No. 2

#### High Cultivators (Above 11.50 Percent)

Above 11.50 Percent cultivators are distributed tahsils are included in high category. The high cultivators are found in the tahsil of Karad (15.7 percent), Patan (12.73 percent) and Khatav (11.93 percent).

#### Moderate Cultivators (9 percent to 11.50 percent)

From 9 percent to 11.50 percent cultivators are distributed tahsils are included in this category. Moderate cultivators were recorded in the tahsils of Phaltan (11.48 percent), Man (11.06 percent), Satara (9.87 percent), Koregaon (9.01 percent), etc.

#### Low Cultivators (Below 9 percent)

Below 9 percent cultivators are distributed tahsils are included in low category. Low cultivators were recorded in the tahsils of Wai (6.82 percent), Khandala (5.30 percent), Jaoli (4.31 percent), Mahabaleshwar (1.79 percent) etc.

#### Spatial Pattern Of Cattles

According to Cattle Census 2019, about 1209202 numbers of Cattle observes in district. But the tahsil level Cattle is varies from tahsils to tahsils ranges from 11942Cattle to 246882Cattle.

All 11 tahsils are categorized into three groups as follows: (in table no. II and Fig. 3)

**Table No. II, The Cattles In Satara District**

Sr.No.	Tahsil	Cattle(In Percent)
1	Jaoli	1.98
2	Karad	12.1
3	Khandala	6.89
4	Khatav	12.47
5	Koregaon	7.21
6	Mahabaleshwar	0.99
7	Man	18.12
8	Patan	8.28
9	Phaltan	20.42

10	Satara	6.75
11	Wai	4.79
Total		100

Source: Livestock Census Handbook of Satara District (2019)

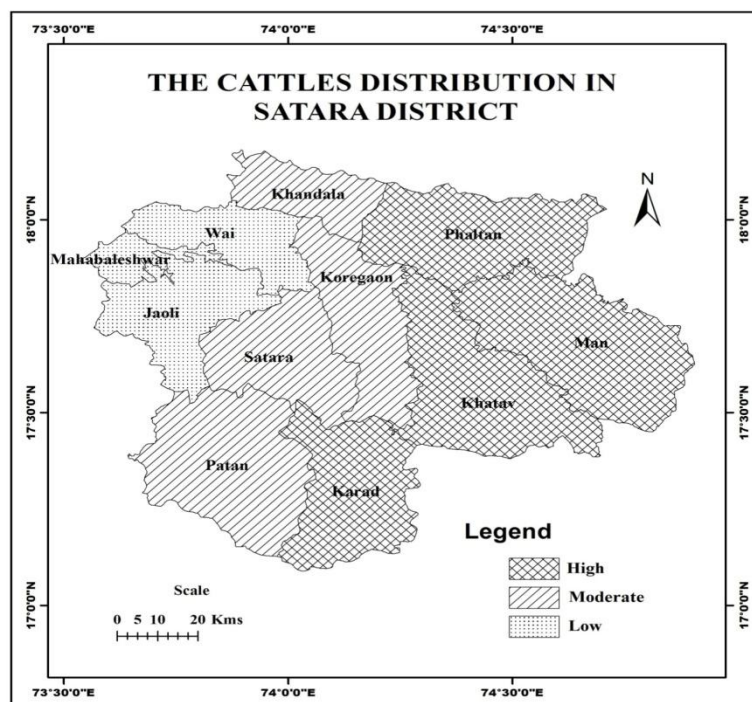


Fig. No. 3

#### High Cattles (Above 12.00 Percent)

Above 11.50 Percent Cattles are distributed tahsils are included in high category. The high Cattles are found in the tahsil of Phaltan (20.42 percent), Man (18.12 percent), Khatav (12.47 percent) and Karad (12.1 percent).

#### Moderate Cattles (6 percent to 12.00 percent)

From 6 percent to 12.00 percent Cattles are distributed tahsils are included in this category. Moderate Cattles were recorded in the tahsils of Patan (8.28 percent), Koregaon (7.21 percent), Khandala (6.89 percent), Satara (6.75 percent), etc.

#### Low Cattles (Below 6 percent)

Below 9 percent Cattles are distributed tahsils are included in low category. Low Cattles were recorded in the tahsils of Wai (4.79 percent), Jaoli 1.98 percent), Mahabaleshwar (0.99 percent) etc.

#### Correlation Between Cultivators and cattles

The Spearman's Rank Order method is used for the calculation of the correlation of Cultivators and Cattles in Satara District. The formula are-

$$r = 1 - \frac{6(\sum d^2)}{N(N^2 - 1)}$$

**Table No. III**  
**Cultivators And Cattlesin Satara District**

Sr. No.	Name of Tahsil	Cultivators	Rank	Cattle	Rank	d <sup>2</sup>
1	Jaoli	4.31	10	1.98	10	0
2	Karad	15.7	1	12.1	4	9
3	Khandala	5.3	9	6.89	7	4
4	Khatav	11.93	3	12.47	3	0
5	Koregaon	9.01	7	7.21	6	1
6	Mahabaleshwar	1.79	11	0.99	11	0
7	Man	11.06	5	18.12	2	9
8	Patan	12.73	2	8.28	5	9
9	Phaltan	11.48	4	20.42	1	9
10	Satara	9.87	6	6.75	8	4
11	Wai	6.82	8	4.79	9	1

Source: Compiled by Researcher

$$r = 1 - 6(\sum d^2) / N(N^2 - 1)$$

Here, r = Correlation,

N= Number of Observation,

D= deviation

$$r = 1 - 6 \cdot 46 / 11(121 - 1)$$

$$r = 0.79$$

It is observed that there is strong positive or direct correlation i.e. p= 0.79 between the Cultivators and Cattles in Satara district. There are the same reasons for strong positive or direct correlation in Satara district like highly use of physiographic, relief feature, river basin area, largest irrigation, people interest, high income from dairy farming etc.

#### **Conclusion**

There are wide dissimilarities in the Cultivators and Cattles of Satara District. In Krishna river basin area, Karad tahsil has observed highest Cultivators i.e. 15.7 percent, whereas Phaltan tahsil has recorded highly number of Cattles i.e. 20.42 percent in Satara district. But, Mahabaleshwar tahsil has observed lowest Cultivators i.e. 1.79 percent as well as where, also recorded less number of Cattles i.e. 0.99 percent in Satara district. There is calculated the correlation between the Cultivators and Cattles found strong positive or direct correlation i.e. p = 0.79. It means high cultivators are reared highly number of Cattles.

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# COMPARISON BETWEEN TRADITIONAL BANKING AND ONLINE BANKING

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## Abstract

Banking is taken into consideration to be the returned bone of an economy. In easy phrases banking may be defined as acceptance of deposits for the cause of lending. Banks accept deposits from the general public at a decrease charge of interest and lend the identical to public at a better charge of hobby. The margin among those two rates of interest is the main source of earnings for a bank. The new developments in communiqué and records generation contributed for many innovations within the device of banking. The most crucial development is the advent of on line banking. This changed the face of banking gadget and made the banking very easy and greater convenient. In conventional banking customer has to go to the department of a financial institution for making transactions. But using on line banking a customer can avail almost all services without visiting the department. Online banking enables 'anywhere each time banking'. Because of excessive degree opposition banks are keep on trying to introduce new progressive strategies and products in their device. Although online banking may be very beneficial and convenient it isn't that lots popular due to a few motives. The evaluation among conventional banking system and online banking system may be very exciting and giving some concept about these two systems.

**Key Words:** Traditional Banking, Online Banking, Anywhere Anytime Banking, Demand Draft.

## Introduction

Banking Regulation Act of India, 1949 defines banking as "accepting for the reason of lending or of funding of deposits of cash from public, repayable on call for or in any other case or withdraw in a position by way of cheque, draft, and order or in any other case". In India Banking operations are primarily based on The Reserve Bank of India Act, 1934 and the Banking Regulation Act, 1949. Traditional banking and on-line banking are two manners for availing banking services. Customers have the possibility to apply each of these centers consistent with their convenience.

## Objective of the study

The objective of this paper is to have an idea about traditional banking and on-line banking structures and an assessment among these two systems of banking.

## Traditional Banking

In conventional banking gadget the purchaser visits the banks for buying offerings or making transactions. He can open any type of account in a bank. In conventional banking, purchaser can open account in a bank and deposit and withdraw cash by way of using cheques, counter price using withdrawal slips and via financial institution drafts. He has to visit the bank for doing transactions. In traditional way of banking head to head interplay between the customers and the team of workers of the financial institution is feasible and it reasons for better courting among the customers and the bank. In case of loans and advances the credibility of the customer is very vital aspect for taking sanction decision. Since the patron has direct dating with the financial institution, the supervisor or the sanctioning authority will be able to judge the credibility and integrity of the consumer easily.

## Services available in Traditional Banking System

A customer can get different kinds of services in traditional banking system. The services available in traditional banking are discussed below:

1. **Open Account:** The client can visit a department of any bank and open any kind of account inclusive of financial savings account, cutting-edge account, and many others. In step with his want. However the client wishes to visit the department for this reason.
2. **Open Fixed Deposit Account:** The clients can open Fixed Deposit Account for their financial savings. If the Fixed Deposit matures he can renew the account for every other term and he also can avail loan facility towards the Fixed Deposit.
3. **Making Demand Draft:** The customer can make a Demand Draft favouring any beneficiary. But for this also the client has to go to the branch.
4. **Request for Cheque Book:** In case of conventional banking the use of cheques is greater and customers have to preserve sufficient range of cheques of their custody for making payments via the financial institution. A consumer can visit the branch and provide request for cheque e book.
5. **Request for Stop Payment of Cheque:** If a consumer wants to forestall the price of a cheque that's already issued via him, he can publish a request for preventing payment of the identical.



6. **Loan Facilities:** The customers can get various types of loan facilities from a bank. The main loan facilities offered by a bank are as under:  
Housing Loan,  
Auto Loan,  
Education Loan,  
Gold Loan,  
Personal Loan,  
Business Loan,  
Mortgage Loan,  
Loan against Fixed Deposit
7. **Transfer of Funds between the accounts within bank:** The customers can transfer funds between the accounts within the bank.
8. **Locker Facility:** Traditional banking affords clients the ability for keeping their valuables in lockers. They need to pay the hire to banks for availing this facility.

#### **Online Banking**

Online banking refers to the procedure of banking the usage of net facility. The customers can avail maximum of the banking offerings thru on-line banking. Online banking presents accessibility to the website of the financial institution and the customers can make transactions thru the website using their ID and Password. Each purchaser is supplied with unique ID and Password for gaining access to online facility.

#### **Services Available in Online Banking**

Almost all the banking offerings are to be had in on-line banking. In addition to those online banking may be used for a few different functions along with on line purchasing, price tag booking and so forth. The numerous offerings to be had in on line banking are as underneath:

1. **Online Account Statement:** The customers can download and take print out of the account declaration the usage of on-line banking. It will help them to maintain music of their bills.
2. **Open Fixed Deposit Account:** Online banking allows for buying statistics' about the constant deposit schemes supplied by way of the bank and customer can pick and open appropriate fixed deposit scheme. Further he can renew the constant deposit account at the time of maturity.
3. **Fund Transfer:** Online banking allows for fund transfer between the accounts in equal financial institution or between the money owed in special banks. Commonly used fund transfer strategies are Real Time Gross Settlement (RTGS), National Electronic Funds Transfer (NEFT) and Immediate Payment Service (IMPS). These facilities are used consistent with the want of the customer.
4. **Submission of Various Requests:** The customers can make use of online banking for submitting request for following:  
Request for new cheque book,  
Request for Demand Draft,  
Request for stop payment of cheque
5. **Payment of Utility Bills:** Online banking facilitates for on line fee of software bills which includes strength bills, water authority bills, cell connection bills, and so forth. The customers can make the fee at their comfort. No want to visit the carrier vendors. Online banking allows for each time any wherein banking.
6. **Online Purchase:** Using on-line banking clients can do on-line shopping through diverse sites for on line buying. If the customers choose the object for buying they can make the payment via on-line banking. Online purchasing enables the clients for getting objects at a reduced fee without traveling any save.
7. **Online Booking of Tickets:** Online banking enables for reserving of all varieties of tickets together with air price tag, railway price tag, bus price tag, cinema price tag, and so on. This allows the customers for saving effort and time.

#### **Comparison between Traditional Banking and Online Banking**

Traditional Banking and Online Banking have its own advantages and disadvantages. The comparison between the same on the basis of some important factors is as follows,

#### **Security**

Traditional banking is more secured in contrast to on line banking. In traditional banking any password isn't used for security. So no person can get entry to the money owed of a patron and can't do unauthorized transactions on-line banking lacks safety in contrast to standard banking. Security troubles are the principle threats for online banking. Online hackers are constantly trying for having

access to the bills of clients for doing unauthorized transactions. It isn't always feasible to eliminate the risk of hacking in on line banking. However new technologies are used to increase new strategies to control this hazard.

#### **Personal Preference**

Traditional banking provides better private desire to the clients. The clients are becoming personal interest from the bank workforce and there may be higher dating among the customers and the team of workers of the bank. The humans who like face to face contact decide on conventional banking to on line banking.

Online banking lacks face to face touch among the clients and the body of workers of the financial institution. Since the customers do no longer visit the branch for making transactions there may not be true courting between customers and staff of the financial institution.

#### **Knowledge**

For conventional banking there's no need to have any special knowledge. In this case clients go to the department and get carrier finished with the aid of the body of workers of the bank. Further they get correct guidance and advices from the bank staff regarding the services and get their doubts clarified.

For doing on-line banking the customers want to have simple pc expertise and English know-how. In this case customers are doing transactions without the intervention of the financial institution body of workers.

#### **Basic Requirements**

In case of conventional banking, banking transactions are being made at branch premises and the clients need not arrange any system along with computer, internet connection, etc.

Online banking is completed by means of the customer himself. So for doing on line banking, purchaser has to arrange the fundamental equipments along with laptop gadget, net connection, and many others.

#### **Cost**

Traditional banking requires bodily presence of the customers. So the customers have to tour to the financial institution and they should spend time there. If the variety of customers is more, they should wait in queue for getting the service completed. They have to use vouchers, forms, cheques and slips for the transactions. Traditional banking includes a variety of working and stuck price.

In case of online banking the patron makes transaction as in keeping with his convenience and the cost for making transactions is nominal.

#### **Presence**

In traditional banking banks exist physically for presenting services and the customers are to be present physically for availing services.

In case of on-line banking, physical presence of the banks does not require for making transactions. The clients do no longer should visit the bank for making transactions.

#### **Accessibility**

In conventional banking, services are available handiest in the course of banking hours. Usually the bank time is among 10.00 am to 4.00 pm. After the banking hours the clients may not be able to get the services even if it's far very pressing. Another important aspect is wide variety of branches of the bank. If the bank has sufficient quantity of branches the customers can visit any branch and do transactions.

Online banking provides 24 hours get entry to the clients. The clients can be allowed to visit the net website online of the bank whenever. The customers want no longer search for a branch for making transactions. Even if he does now not have any concept about the region wherein the branch of the financial institution situates, he can make transactions thru online banking. Online banking facilitates for every time anywhere banking.

#### **Consumption of Time**

Traditional banking is very time ingesting in evaluation to on line banking. The clients ought to spend time for touring to financial institution. They have to wait in queues for getting the services completed. Even if it's miles for balance enquiry of the account, they should spend their treasured time.

Online banking allows the clients to store their time. They want no longer travel to the bank or no need to attend in queues. They can get admission to their account and make transactions within very brief time.

#### **Control over Finance**

If the client is out of station or if he is an NRI, he won't be capable of have a tune of his bank accounts. He won't be capable of pay near interest and manage of his finance.

Using on-line banking the clients could have higher manage and may have tune in their financial institution bills although they may be no longer in station.

**Conclusion**

Online banking is more convenient and beneficial in contrast to conventional system of banking. Though on line banking is greater useful it isn't always utilized by the majority of the customers. Most of the clients do now not have consciousness of online banking and that they do now not recognize a way to use internet. So the banks and authorities need to conduct client recognition programmes for making conscious the customers about the use of on line banking. In India online banking is passing via the increase segment of its development cycle. It is positive that on line banking will no longer stay as simplest a fee delivered carrier. The tendencies in communiqué and records era make on-line banking greater popular.

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## SOCIAL STRUCTURE OF POLITICAL SYSTEM

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### Introduction

It turned into remarked that inside the social systemlike political system, monetary device, religious machine, instructional system, and many others. Each of those systems gives a separate field of take a look at. In sociology we are not involved with all that the various disciplines should each about the nature, forms, features and mechanisms of the exclusive systems. We are interested by them due to the fact these structures adjust the social relationship of man.

### Meaning of Political system

The system concept in social sciences was adopted from biology. It first made its appearance within the field of social anthropology from where it became adopted in sociology, a bit later in psychology and nonetheless later in political science. David Easton and Gabriel Almond performed a main position in growing the gadget principle in the discipline of political technological know-how. According to Easton, a political gadget is that device of interactions in any society through which binding or authoritative allocations are made and carried out.

### Meaning of the state

“State is a particular portion of mankind viewed as an organized unit.” -Burgess

“State is a people organized for law within a definite territory.” -Wilson

### Difference between State and Society

The father of Political Science, Aristotle and other early Greek thinkers did not make any difference between nation and society. This become due to the peculiar circumstances triumphing inside the Greek town-states. The **city-state** being a small and compact frame covered the activities of the whole existence of man. Today, but no such identity is feasible because in the words of MacIver, to perceive the social with the political is to be responsible of the grossest of all confusion which completely bars any knowledge of either country or society. The state exists within the society. Interpreted strictly the nation is a political organization. It is different from society both structurally and functionally.

- 1) In factor of time, society is prior to the country. The human beings lived in society tons earlier than the nation emerged.
- 2) State is organized; society became unorganized, however the state is always organized or unorganized. The primitive society become unorganized, but the nation is always organized.
- 3) Society sports authority largely through customs and persuasion. The state sporting events authority through laws and coercion. The nation on my own can legitimately use pressure. To use the language of Barker. The area of society is voluntary co-operation, its power that of precise will, its approach that of elasticity; whilst the region of nation is alternatively that of mechanical movement, its energy force, and its approach tension.

### The Origin of the State

The beginning of state is shrouded in utter thriller. It is difficult to mention while the primary nation got here into being. The present day sciences of sociology, ethnology and anthropology are not able to offers us an insight into the primary origin of the nation. The political writers have propounded numerous theories concerning the prehistoric beginning of the nation.

- 1) **The Divine Origin:**Theory According to the Divine origin theory, State is established and ruled by God himself or through some superhuman energy .The king on the earth is the agent or vice regent of God.
- 2) **The Social Contract Theory:**State is a historical boom. The above theories of the beginning of country are more or less speculative in individual. Most of them are justification of types of authorities truly in operation.
- 3) **Kinship:**Kinship is the earliest bond of cohesion. It knit collectively classes and tribes and gave them harmony and concord. ‘Kinship’ says MacIver, creates society at period creates the state.
- 4) **Religion:**Religion changed into another critical issue in the creation of social recognition and inside the improvement of the nation. Religion is a mode of worship.
- 5) **War:**When ties of kinship and religion could now not bind the human beings collectively, then conflict and conquest developed institution awareness, loyalty and discipline which might be crucial to the life of the state.

- 6) **Political consciousness:** The state took more exact and democratic shape with growth of political Consciousness amongst guys. This aspect of political consciousness is a dominant one in the contemporary global.

### **The Development of State**

The above elements helped the evolution of the state to a large extent. Historically speaking the Oriental Empire, City States, Feudal State and the Nation State had been the diverse stages within the improvement of the state.

- 1) **The Original Empire:** The Imperial State of the Orient turned into the kinds of the state which emerged from primitive patriarchal conditions.
- 2) **City-States:** The second essential stage inside the evolution of the state was reached in Greece. The Greeks evolved a number of political businesses of their self- sufficient town-states.
- 3) **The Roman Empire:** Rome started her political career as a city-state. Her early form of government changed into monarchic.
- 4) **The Feudal states:** Feudalism turned into the following degree in the records of improvement of State within the anarchic state. In the anarchic state into which society had fallen after the Rome, feudalism gave the people Europe peace and protection and preserved the machinery of the State.
- 5) **The National State:** The renaissance and the Reformation marked the start of contemporary countrywide states. The improvement of cash economy, the discovery of gun powder, the improvement of modes of transportation brought about the breakdown of the feudal machine.

### **The Function of the State**

There is incessant controversy approximately what the state shall do. Political thinkers have on occasion advanced many theories to outline the field of nation interest. On the one hand, there are thinkers like anarchists, communitiessyndicalists who question the very life of the state and recommend a stateless society. The State is a constrained organization.

Maintenance of order taking the first sort of features i.e. which the state on my own can perform, the number one characteristic is the protection of order in society Conservation and improvement. Considering the second one sort of features for which the state is nicely tailored, MacIver includes in this class “the conservation and improvement of human capacities as well as its monetary sources.”

### **Government**

#### **Its Meaning**

Sometimes confusion is made between nation and Government and the two words are used interchangeably. Government is a tool of the state thru which it incorporates out its purposes. A state, as we have seen, is a politically prepared and geographically constrained frame of people that possesses the right use to pressure. It is an abstract entity and so has to have a tool through which to perform. Government is such a tool. All citizen of state are not a part of a Government. An authority consists of handiest the ones officials and humans who are appointed or elected to determine, interpret and carry out the law of the state.

#### **It's Form**

Governments may also take numerous bureaucracies. In records there have appeared many styles of government. Aristotle had given a six fold category of government three regular and three perverted sorts of authorities. The three regular types of authorities are monarchy’ rule of one man or woman; aristocracy, rule by some; polity rule by using many if this ordinary paperwork are perverted, monarchy becomes tyranny, aristocracy turns into oligarchy polity turns into democracy.

### **Political Parties**

Political events have end up important adjuncts of government in modern times. They are the contraptions whereby candidates are dominated and elected. Though they not legitimate companies created by means of state, they may be nonetheless, quasi-reputable inside the sense that states sanctions, regulates and allow them to provide applicants for public workplace. The ultimate intention of a political birthday celebration is to seize political energy and maintain control of the government.

The election symbols (Reservation and Allotment) order, 1968 affords for reputation of political parties for motive of specification, reservation, choice and allotment of image for elections in parliamentary and meeting constituencies. A political party shall be treated as a identified political birthday celebration in a state if, and best if, either the situations specified in Clause-

#### **A. Such party**

- a) has been engaged in political activity for a continuous period of five years; and
- b) has at general elections in that state to the House of People, or as the case may be, to the Legislative Assembly for the time being in existence and functioning.

- B.** That the total variety of valid votes polled through all the contesting candidates installation through such celebration at the overall election within the state to the House of human beings, or because the case can be, to the Legislative Assembly in the intervening time in life and functioning is not less than 4 percent of the total range of valid votes polled through the contesting candidates at such fashionable election inside the state.

**Voting:** Election or balloting is a one of a kind characteristic of a modern-day democratic polity. One of the primary features of political events is to contest elections. Their first function is to select suitable candidate for celebration price ticket and help such candidate to win the election.

Voting behavior: Voting behavior depends upon several factors and differs from place to place.

**Voting behavior is affected by the following factors:**

- i) **Religion** –India due to the fact that historic day has been predominantly a country inhibited by way of exclusive religions.
- ii) **Caste** –Election in India are contested very a lot on the basis of casteism. The voters are asked to vote for their caste candidates and casteism is maintained by using the elected leaders after the election are over, Political parties sponsor best that candidates from a specific constituency whose caste is the most numerous in that region.
- iii) **Community**–Community feeling is any other aspect influencing the voters. Community feelings had led the Telgu people to demand separate state of Andhra; likewise hilly in Uttar Pradesh are asking in Uttarkhandstate. The citizens of unique community say Panjabi, vote for their network candidate no longer because he's the pleasant but he belongs to their very own community.
- iv) **Class**–It is one of the factor influencing vote casting behavior within the regions in which the citizens is broadly speaking of voters belonging to operating class.
- v) **Money**–Money perhaps plays the greatest position for the duration of elections, Corers of rupees are spent via the political events of their bid to seize political strength.

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# MAJOR PROBLEMS OF WOMEN IN INDIAN SOCIETY

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## Abstract:

In India Sati Sabitri, Durga, Lakshmi are worshipped by way of human beings treating them as goddesses while there may be growing number of violence towards women.

Women in India must face quite a few problems. They need to go through gender discrimination, harassment, Sexual abuse, loss of education, dowry associated harassment, gender pay gap and much extra. India is a country where women are given the repute of a goddess. However, the issues they need to face, simply display the opposite of this concept. On one hand they worship them as goddesses, and on the other hand they abuse them forever and ever and recollect them inferior. India women always had a few problems or the alternative to stand in society. People evolved and so did the issues; they did not depart but modified from one to another. We want to recognize these issues and act on them speedily to assist our country thrive. Problems faced by means of women in India: When in the early days there had been extreme troubles like sati system, no widow remarriage, devadasi system and greater. While maximum of them are not common now, there are new problems that women face. They may be no longer the equal but they're nevertheless as severe as the early ones. They hinder the growth of a country and make the women experience inferior.

Firstly, violence in opposition to women is a completely grave problem faced by women in India. It is going on almost every day in numerous bureaucracies. People flip a blind eye to it as opposed to doing something. Domestic violence happens extra regularly than you believe you studied. Further, there may be additionally dowry related harassment, marital rape, genital mutilation and extra.

Next up, we also have the difficulty of gender discrimination. Women are not taken into consideration identical to men. They face discrimination in almost each place, whether or not at the place of work or at domestic. Even the little girls grow to be a sufferer of this discrimination. This patriarchy dictates a women's existence unjustly.

Moreover, there is also a loss of female. Education and the gender pay gap. Women in rural areas are still denied education for being a female. Similarly, women do now not get same pay as guys for doing the same work. On top of that in addition they face place of business harassment and exploitation.

**Key-Words:** Indian Society, Women, Gender Discrimination, Nirbhaya and Disha

## Introduction:

“YatranaryastupujyanteramantetatraDevata, YatraitaastunaPujyanteSaravaastatrafalaahKriyaah” is a well-known sloka taken from Manusmruthi which means that in which women are honoured, divinity blossoms there, and where women are dishonored, all action regardless of how Nobel stay unfruitful.

She acts as a mother, sister, daughter, wife, and sister-in-law & additionally pals to our circle of family. She plays a key function within the family & she can do something without men. Because she is powerful, smart, crafty & she is passionate courageous, she is a good man or woman of movement, emotion, devotion, generous, serves for the entire family and guests, and has several exceptional powers.

This sort of women confronted such a lot of problems in the gift society in particular in India.

## Objectives

- 1) What is the present situation of women in India?
- 2) Is India safe for women?
- 3) Why India is the dangerous Place for women.a) Ayesha Meera, b) Ravuri Sri Lakshmi, c) Nirbhaya (Rape cases in India from 2012-2020), d)Disha, 2019 HYD, e) 2020, Hathras gang rap & murder.

### 1. What is the present situation of women in India?

According India's constitution women are legal residents of the country and feature equal rights with men (Indian Parliament) because of loss of attractiveness from the male dominant society. Indian women suffer immensely. Women are liable for bearing children, yet they're malnourished and in terrible fitness.

### 2. Is India safe for women?

Being a women isn't easy and that too whilst you stay in India due to the fact in India at every 20 minutes a lady is raped and if we mentioned the cutting-edge scenario. India isn't secure for women now not even on this 21<sup>st</sup> century. This country has been ranked as the sector most dangerous location for women. (July 04, 2020)

### 3. Why India is the dangerous place for women:

In India the harmful area for women, because of the chronic rise in range of the rape cases and absence of get entry to justice in it.

India ranked as the world most dangerous place for women?

I wish I would never exist in India: Women.

Every rape victim asks why me?

Am I responsible for the cause that happened to me?

Then why nobody comes in front and save me?

As each passage, at each located whether or not being surrounded via loved ones or stranger, each one humiliates me, misbehaved with me and raped me.

Above sentences, phrases are quick to mention, however the deep pain that I felt and go through with is difficult to provide an explanation for Rape sufferer, underneath a few examples.

**a) Ayesha Meera rape case in Andhra Pradesh:**

A 19 yearold pharmacy student named Ayesha Meera was raped and murdered brutally in a hostel at Vijayawada. She body with stab injuries was found in the bathroom on 27<sup>th</sup> December, 2007.

**b) Ravuri Sri Lakshmi:**

M.C.A. Student Sri Lakshmi murdered by her Classmate Manohar at Sarada College Vijayawada. Reason, refused his love proposal she was killed in her classroom.

**c) Nirbhaya:**

Remember that heinous crime that occurs in the national capital of India. Delhi at Munirka on 16<sup>th</sup> December, 2012 (Nirbhaya Case) that leaves everybody in Trauma and left a darkish stain on women safety and protection. She becomes a physiotherapy intern who had gone to observe a film with her male pal and has been assaulted on her way again home. She had been rape in a bus by using six humans in whom she was journeying along with her male buddy. These monsters had crossed all of the limits of brutality. This case got country wide as well as worldwide coverage, but nothing had made a huge trade inside the velocity of justice of Nirbhaya case as this excessive profile case had taken 7 years to finish. The Judicial system of India is somewhere answerable for the rising numbers within the rape case in India. Sadly, but on the identical day of Nirbhaya, there has been one extra gang rape happened in Meghalaya where a girl went to the iciness pageant at William Nagar with her pals and on her way returned. She changed into hit with bricks on her head and raped by using sixteen human beings.

Nirbhaya became not the sole rape case in 2012, as consistent with NCRB report it became one of the 2,41,923 recorded cases or even the record said that within the same year extra than sixty eight girls raped every day. The numbers of the rape cases are terrible and whole the country turned into disturbing justice for Nirbhaya. But what occurs to others cases. Did rape victims get justice? Do rape victims alive? Did the authorities take any strict actions? So, many questions but if we look for Exact Answers, then there's Nothing.

After every brutal rape case government promised adequate of things, they amend laws, all the better authority does tweets, provide empathy, however after awhile while the time passes they'll forget about. Because if our authorities consider women protection and security, then definitely, the numbers of rape cases will never grow so extraordinarily. After 2012, the wide variety in rape cases has been continuously increasing to 91.38 in 2018.

People pretested and angry strict punishment and strict legal guidelines for rapist and women security. But all those protests had now not delivered a lot exchange in Indian regulation. After Nirbhaya, Criminal in opposition to women gets amended, but that amendment does now not forestall the velocity of rape in India. This tabular illustration of Rape cases after Nirbhaya genuinely suggests the image of women's protection in India.

Below desk we present the highlighted, rape instances after 2012 to until now. In each year a brutal gang rape happened and those come on the road, shows their aggression, outrage and call for capital punishment for rapist but nothing has modified.

**1) Rape Cases in India from 2012 to 2020.**

2012 Delhi: 16 Dec, 2012 NirbhayaGange Rape by 6 people including a juvenile

2013 Mumbai: 22, Aug, 2013, Shakti Mills Gang Rape by 5 people including a juvenile

2014 Uttar Pradesh: 27, May, 2014 Badaun Gang Rape by up to 7 People (Suspects)

2015 Tamil Nadu: July 2015, Shivanagai minor girl rape case accused a public officer.

2016 Rajasthan 29 March, 2016: Delta Meghwal rape case 17 years old girl accused her hostel teacher.

2017 Uttar Pradesh: 04, June, 2017 Unnao rape case A minor girl raped.

2018 Jammu Kashmir: Jan, 2018 Kathu Rape case minor girl raped by 7 people.

2019 Rajasthan: Dec, 2019, 6 years old girl raped on her way back home from school.



2019 Hyderabad: 27 Nov, 2019 accused 4, Location Shamshabad, Total 5:1

2020 Madhya Pradesh: 23 April 2020 6 years old girl raped.

14, Sept, 2020: 19 years old dalit women was gang raped.

This shows that each year rape occurred and nothing has changed. At a few point, our judicial system is accountable for this because they do no longer enforce strict legal guidelines and punishment for rape cases. After seeing so much brutality and heinous crime with women nevertheless, people of better authority stated that Death. Penalty is never the solution closer to ending violence by using the executive director of women rights group Amnesty International India.

According to Executive Director for Avinash Kumar “Death penalty provides darkish stain in Human rights” (During Nirbhaya Case). Really? Because after Nirbhaya there are quantity of extra brutal rape cases came about and is that this not a darkish stain in Human rights? Rape is a black spot in our country and society, Times has come when we need stricter legal guidelines and strict punishment otherwise this can turn out to be worse.

## **2) DISHA:**

In Nov 2019, the gang rape and murder of a 26 yearold veterinary doctor Disha (changed Name) inShamshabad, near Hyderabad, sparked outrage across India.

Her body changed into located in Shadnagar on 28<sup>th</sup> November 2019 the day after she became murdered. Four suspects had been arrested and, consistent with the Cyberabad Metropolitan police, confessed to having raped and killed the health practitioner. The Telengana Police arrested four men primarily based at the evidence gathered from CCTV cameras and from the sufferer’s cell phone. The accused have been taken into judicial custody at Charlapally Central Jail for fourteen day’s.

The Telangana Chief Minister Ordered the formation of a fast – tune courtroom to excursion the accused for their alleged crimes. The rape & homicide elicited outrage in numerous elements of the country. Protests and public demonstration in opposition to rape had been organized national after the incident, with the general public annoying stricter laws in opposition to rape & rapists. The Minister of Home Affairs criticized the Telangana Police and stated that the government intended to amend the Indian Penal code and code of criminal Procedure to introduce laws faster Punishment by using rapid track courts.

All 4 accused were killed in a police encounter on 6<sup>th</sup> December, 2019, underneath a bridge Bangalore Hyderabad national highway even as they were in police custody. According to the police the suspects had been taken to the area for a reconstruction of the crime scene, wherein two of them allegedly snatched guns and attacked the police. In the making sure shootout all 4 suspects were shoot dead. Some accused the police of greater judicial execution, even as lots of human beings celebrated the men’s deaths.

### **➤ 2020 Hathras gang rape and murder**

On 14 Sept, 2020, a 19 year – old Dalit Women was gang raped in Hathas District, Uttar Pradesh, India,allegedly by four upper caste men. After fighting for her life for two weeks, she died in Delhi hospital.

**Location:**Hathras U.P. India

**Date:**14, Sept, 2020 Attack Type : Rape dragged strangulated (with duppatta)

**Deaths:**1

**No. of participants:**4 (Sandeep, Ramu, Lovkush& Ravi),

**Charger:**Murder gang rape and violations of the scheduled caste & Tribes Prevention of Atrocities)Act 1989.

These are all incidents How much safety for girl in India.

### **Conclusion:**

We have to all come collectively as one to combat those troubles confronted by way of women in India, Every citizen and authorities must try and make it. A safe place for women to be in.

They have to make greater stringent legal guidelines in opposition to individuals who dedicate crimes against women.

They have to also be applied well to make certain absolutely everyone takes the significantly.

Furthermore, opportunities must be furnished similarly for men and women in each discipline. Government & residents must take delivery of equal academic possibilities. We must inspire women provide their nice finally we need to join palms to defend and guard our women in India it will assist us.

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# Determinants of Voting Behaviour of People in Indian Political System- A Literature Review

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## Abstract:

*In the democratic political system voting places a very important role. Voting is the life blood of democracy due to citizens elect their representatives through the elections for forming a better government. People use voting as a mode of interacting their acceptance or rejection to governmental policies. Voting behaviour denotes the responses of citizens related to participating in the elections that take place for electing members or their representatives of their local, regional, or national government. The study of determinants of voting behaviour of people in Indian political system comprises a very important area of study. An intensive literature review regarding study of the determinants which inspire and influence the voters to use his right to vote in favour or against a particular candidate. Voting behaviour is determined by different forces such as gender, race and pressure groups religious and communities, the influence of money or charismatic personality of a leader. The main purpose of the present study is to carry out literature review regarding voting behaviour in India and to accentuate the factors that decide the voting behaviour in India.*

**Key Words:** Voting, Determinants, Voting Behaviour, Political System

## Introduction

Elections are an essential component of any democratic society and are the conventional means by which a population selects individuals to represent them politically. (Guo, Q. 2020, N. Ismail, 2018). Generally, citizens participate in the election process to express their voice as well as their right to elect officials to represent them in a government (He, B. 2006). In addition, through election, citizens as voters can choose their representatives in conditions of openness, equality and transparency that simulate political competition (Kleinen-Von Königslöw, K. 2016). Voting as means for expression his/her approval or disapproval of governmental decision, policies and programmes of various political parties and the candidate who are engaged in the struggle to get the status of being the representatives of people (Antunes, R. 2010). In other way voting refers to the function of election representatives by casting voter in elections (Singh, S. 2020). According to Samuel S. Eldersveld voting behaviour is not new term. It is not confined to the examination of voting statics, records and computation of electoral shifts and swing. It also involves an analysis of individual psychological process like perception, emotion, and motivation and their relation to political action as well as of institutional patterns, such as the communication process and their impact on election (Abdullah, M. 2020).

The choices of voters in election are affected by various factors, especially social-group identity, which helps to forge enduring partisan identification (Khan, M. S. 2015) In addition, voters are influenced more by short-term factors such as issues, campaign events and candidate appeal (Nizah et al., 2016). Voting is the main form of political participation in liberal democratic societies and the study of voting behaviour is a highly specialized sub-field within political science (Hossain, 2017). The analysis of voting patterns invariably focuses on the determinants of why people vote as they do and how they arrive at the decisions they make (Noor Hamid Khan Mahsud, 2020). Sociologists tend to look to the socio-economic determinants of support for political parties, observing the correlations between class, ethnicity, sex, and age and vote; political scientists have concentrated on the influence of political factors such as issues, political programmes, electoral campaigns, and the popularity of party leaders on voting behaviour (Amila, S. E. 2020). However, both disciplines share much the same terrain, and increasingly tend to overlap in their analytical approaches. Voters have a special significance in electing their representatives (Hazarika, B. 2015). There are more than 70 crore voters in India's democratic structure. They have a right to cast their votes in election. About voters and their voting, Rojanthal says, "When India votes, the whole world

votes.” There are more voters in India than voters in America, England, France, Japan, Brazil, Canada, Germany, Denmark, Sweden and Bangladesh. Moreover, voters belong to different castes, communities and creeds in India. This diversity has great impact on the political system, political culture and political developments in the vast democracy of India (Adams, 2015). The election process exhibits voting behaviour of Indian’s voters (Ashok Kumar, 2015). This paper is descriptive in nature. The information used in it have collected from secondary sources. Necessary secondary data is collected through literature review from journals, reference books and research articles.

## **LITERATURE REVIEW**

### **Determinants of Voting Behaviour**

Voting pattern in India is the greatest democracy compared to other countries. Every citizens of 18 years or more than that age have the right to vote in Indian elections (Onder, M. 2017). Most of them are or half of them are illiterates, they have in the past acted wisely and in a mature way to elect their representatives. They have already participated in several elections to Lok Sabha, state legislative assemblies and a large number of bi-elections. At the first general elections in India in 1952, some election studies were conducted. In the beginning, these studies lack methodological rigour and sophistication. However, with the increased use of the survey method and observation technique has improved the quality of election studies in India. Indian electoral studies are mainly inspired by Western research on voting behaviour, particularly in the United States, Colombia, and Michigan. Scholars at Columbia University in New York highlighted the impact of social and environmental forces on voter choice.

### **Voting Behaviour In India And Its Determinants**

In India following main political and socioeconomic factors which act as determinates of voting behaviours in our Democratic system

#### **Local Issues**

Local issues always influence the choice of the voters. A regional or a local party always tries to identify itself with local issues and there by secures for itself popular local support (Porta, B. 2015). The success of the Jharkhand Mukti Morcha in Jharkhand region of Bihar is a classic example which highlights the role of local issues as determinants of voting behaviour. The spectacular success of the Telugu Desam Party in Andhra Pradesh in the 1999 Lok Sabha and Andhra Vidhan Sabha elections was largely determined by its image as a local part identified with the local interests of the state and having a good support with the centre. All regional parties try to win elections on local issues. In fact, all agencies of public opinion always act as determinants of voting behaviour (Seran, G. G. 2018).

#### **Election Campaigns**

Each party launches a vigorous campaign for influencing the voters in its favour. Use of such means as mass meetings, street meetings, personal contacts, posters, poster war, speeches by film stars, T.V and radio broadcasts, News Paper advertisements, hand bills, processions and propaganda is made to win votes, particularly the floating votes during the election campaigns (Ojekwe, G. I. 2016) The election campaigns are designed to make a voter believe that his interest can be best served by the party/the candidate of the party contesting from his constituency. Thus acts as an important determinant of voting behaviour (Beyer, A. 2014).

#### **Current events**

The current problems and difficulties faced by the people as well as recent political developments or the poll eve developments also act as determinants of voting behaviour (Pradesh, M., Gwalior. 2017). The political and economic events of the election year also act as determining factors (Nasser, A. N. (2013). The price rise, shortages and other economic hardships faced by the people during 1966-67 helped several Political parties in considerably reducing the popularity of the congress with the masses. In 1967, the congress, though it retained its majority at the centre, suffered a loss of popularity which was reflected in its poor performance in the elections to the Legislative Assemblies. However, the victory in the 1971 Indo-pak war turned the tide in favour of the Congress in the elections that followed. In 1984 of the assassination of Mrs. Gandhi created a huge sympathy wave in favour of the congress(I) and its leaders Mr. Rajiv Gandhi in 1991, the assassination of Mr. rajiv Gandhi on 21st May, stemmed the swing away to a low swing in favour of the Congress(I).

### **Money Factor**

The role of money cannot be ignored in the study of electoral behaviour. Though India is a poor country, crores of rupees are spent in election (Muhtadi, B. 2019). In the present political and economic context, the conduct of election and the electioneering campaign led by candidates and political parties have tended to be costly (King, G., Rosen, O 2008). While the 1952 elections to parliament and the state legislatures cost Rs. 10.50 crores, the 1980 elections to the Lok Sabha alone cost about Rs. 52 crores, notwithstanding all the economy measures taken to keep the costs down. It must be stressed here that this is a conservative estimate based perhaps on the returns filed by the candidates to the election commission. These incurred. Certainly with the present system of conducting elections, the costs will escalate at least in proportion to the rise in the cost of living. Moreover, in spite of specifying a ceiling on expenditure that a candidate can make in his election, the amendment in the representation of the people act of 1974 has laid down that the amount spent by a party shall not be taken as an expenditure made by the candidate. The role of money in the politics of our country should, however, be discovered in the politics of political funding. It finds place in the world of big industrialists and capitalists to various political parties, particularly the congress party.

### **Religion**

The establishment of a secular state in India by guaranteeing the right to freedom of religion to everyone, treating every religion as equal and non-recognition of any religion as a state religion has not been successful in preventing the role of the religion as a determinant of political behaviour in general and voting behaviour in particular (Gul Said 2021). The existence of such political parties and non-political groups as stand linked with a particular religion, for example, the Muslim league, the Akali Dal, the Hindu Maha Sabha, the Shiv Sena etc. has been one of the reasons behind the continued role of religion as a determinant of voting behaviour (Iyer, S. 2018). Religious pluralism of the Indian society is a major feature of the environment of the Indian political system and it greatly influences the struggle for power among political parties. The selection of candidates is done with an eye upon the presence of a religious majority in a particular constituency. In Karnataka there is a demand that Kannada alone should be the medium of instructions in schools, but it is being opposed by other ethnic groups. Such problems are presenting in almost all the states since people have emotional attachment with their languages, they easily get influenced whenever there comes up any issue relating to language. Linguistic interest always influences voting behaviour.

### **Social group**

When members of a particular social group (e.g., racial, economic, gender, or age) identify especially strongly with that group, those people develop a group consciousness that appears to increase turnout (Ben-Bassat, A. 2012). People who say that their lives are intrinsically tied to other members of their social group (especially if that group is disadvantaged) appear to change their political behaviour accordingly and increase their turnout. People with high solidarity could have higher motivation to vote because they are concerned with issues affecting their group, or their strong connection to members of that group could give them skills that better enable them to vote (Kopřiva, R., & Varvažovská, P. 2011). The social and psychological forces that inspired voting the first time may have enhanced impact directing future voting decisions. After being successfully mobilized to vote once, a citizen may attract repeated mobilization efforts at the times of subsequent elections. Voting may be self-reinforcing, meaning that the social and psychic rewards one enjoys after voting once may be memorable and motivating at the times of subsequent elections. And the act could change a person's self-perception into one of an active, civically engaged individual, and by voting once, a voter might realize the ease of doing it and may therefore be less inhibited from doing it again.

### **High-profile events**

High-profile events might impact elections, but personal tragedies and investments also impact voter decision (Healy, A. J 2010). Because traumatic events and natural disaster certainly leads to strong emotional reactions is fear (Suna, J. M. 2013). People tend to vote for the candidates who they feel best protect their freedoms. Appeals to voter fear are therefore common method of swinging voter's opinion

during election. Some researches show that fear might be the most effective way of cultivating electorates.

### **Social Pressure**

Social pressure has been found to be a major influence on people's decision to vote. Voting is a sign of our membership in a larger group. People are often motivated to vote because they want to suitably in. This social pressure came from many sources, most notably parents, friends, and romantic partners (Panagopoulos, C. 2010). Our social environment and events indirectly influence voting behaviour by heightening emotion and drawing attention to specific issues (Rogers, T. 2017).

### **Trust and Belief**

Trust and Belief also influence behaviours of voters because people who are especially trusting of others are more likely to vote. Perhaps distrustful people think of the political system as corrupt, which might sap their motivation to participate (Turska Kawa, A. 2013). But low levels of interpersonal trust might also sometimes inspire higher turnout if lack of trust motivates people to take action to minimize the damage they might fear others might inflict. People who feel a personal sense of civic duty believe they have a moral obligation to participate in politics and are especially likely to vote in elections. Similarly, people who believe that all citizens have the obligation to vote go to the polls more than those who do not hold this belief (Oostveen, A. M 2015). Presumably, civic duty is a source of motivation to turn out. Citizens who have a great sense of political efficacy turn out more. This is true for both internal efficacy, the belief in one's capability to understand and participate in politics) and external efficacy, the belief in the responsiveness of political institutions to citizen involvement; The higher an individual's efficacy, the more motivated he or she presumably is to cast a ballot.

### **Voting habit**

Some studies indicate that voting is habit-forming and habitual voters are continuing to vote regardless of candidates. The voting habit of people is also influenced by vicinal because election cues as neighbours talking about politics or pertinent yard signs (Gerber, A. S. 2009). Another way voting is a habitual behaviour, meaning that voting once increases the likelihood of voting again. Voting is a habitual behaviour, meaning that voting once increases the likelihood of voting again (Law, W., & Flavin, P. 2019). The political party affiliation of people is also influenced by their neighbourhoods.

### **Motivational Factors**

The behaviour of voters is influenced by motivation factors. The more motivation or ability a person has to vote, the more likely he or she is to turn out on a given election day (Glasford, Demis. 2008). Thus, a citizen's turnout behaviour is likely to be a joint, multiplicative function of these three classes of causes, so pointing to a single factor as causing a person's turnout or lack of turnout would be a vast oversimplification. The multiplicative feature of this equation means that high motivation or high ability or low difficulty is not sufficient to ensure turnout deficit in any area may be sufficient to undermine a person's turnout.

Motivation to vote could come from a strong preference for one candidate over his or her competitor. But motivation can also come from the belief that being a responsible citizen requires that a person vote, from pressure from one's friends or family to vote, or from other sources that we outline below (Gerber, A. S. 2009).

### **Public Esteem of the Candidate**

A candidate report with the people with a constituency or his known qualities or contribution in any value spread of activity always acts as a factor of voting behaviour (Guo, Q. 2020). In addition to his party loyalty or opinion on various issues and problems, the voter, while making his choice, always takes into account the nature and level of his association with the candidate (Spenskuch, J. L. 2018). A positive image of a party's candidate is a source of popular support for the party. A voter prefers to vote for a candidate who is approachable and who can help him anyway (Hultman, M. 2019).

### **Factionalism**

The Indian Political life from the village level to the national level is characterized by factionalism. Neither political party nor even the cadre-based BJP and the two communist parties is free from factionalism

(Hazarika, B. 2015). It is at work, as Rajni Kothari points out, at all level of the congress. It has adversely affected the strength of the congress is a political party with a glorious past, a weak present and not a bright future. Other parties are also suffering from factionalism. The voters are getting disappointed with some of the political parties because of their inability to overcome factionalism (Basedau, M.2011). They are moving to regional parties which, because of their small organizational network and limited operational based are relatively less affected by factionalism.

### **Mass literacy**

Mass literacy has been another determinant of voting behaviours in India (Rozenas, A 2018). Due to this weakness of the people that political parties, communal groups, and militant outfits, are in a position to exploit the sentiments of the people in the name of caste, religion, region and another such factor (Bhavnani, R. R 2019). The votes of the illiterate constitute a big proportion of the votes polled and hence it plays a big role in determining the outcomes of elections (Agomor, K. 2014). However, despite this fact, the common sense and maturity born out of the past experience have also been playing a big role in influence the voters mind and actions.

### **Performance of the Party in Power**

Each Political party contests elections on the basis of an election manifesto, and after coming to power, it is expected to fulfil the promises made therein. Good or bad performance of the ruling party, just on the basis of the election promises made and promises actually fulfilled influence the basic behaviour of the people in a big way (Singh, A. K. 2020). The main reason for this is a corresponding increase in the number of “floating voter” or “switchers” who are mostly young citizens from an educated upper middle class and are ready to transfer their support from one to another party on the basis of their performance (Carney, K. 2022).

### **Influence of money**

India is a poor country with a large number of people living below the poverty line. Money as such plays a crucial role in determining the behaviour of votes in India (Cruz, C. 2015). A rich candidate or party has more chances of winning the elections always. At the time of elections, the poor are allured by the glitter of the money and their votes are purchased (Mitra, A. 2021). In this way, the process of, ‘give a note and take vote’ goes on in India.

### **Language**

India is a multi-lingual state. The language also serves as a factor in voting behaviour. The organization of states on a linguistic basis fully reflects the importance of language as a factor of politics in India (Cáceres Miranda 2020). There have been problems in states like that of the status of one particular language in that state, or relating to the quality of the status of a language of a state (Akhter, Z 2018). Since people have an emotional attachment with their languages, they easily get influenced whenever there comes up any issue relating to language.

### **Party loyalty**

In India, many of the people are attached to their different political party and they always cast their vote in favour of the party rather than the candidate (Young, D. J. 2007). We can’t change their party loyalty even when they know that their candidate would not be going to win, such voters are known as committed voters (Biswas, A. 2014).

### **Personal contacts**

Personal contacts of the candidate and voters also affect the voting behaviour of the voters. Most of the voters get influenced by personal visits of the candidate and they cast their vote in their favour. Besides this, the relatives and friends of the candidate also cast their votes in favour of them because of their personal relationship (Ohman, M. 2015).

### **Populist slogans**

Sometimes different political parties raise the populist slogans according to the need of the time and affect the thinking of the voters (Rahul, V. 2017). For example, congress raised the slogan of, ‘garibihatao’ in 1971. During the 16th Loksabha election the slogans like ‘Aabki bar Modi sarkar’.

### **Ideological commitment**

The ideological commitment of the voters also effects the voting behaviour most of the voters are crazy about particular ideology and they keep in view the ideology of the candidate and the political party at the time of casting their votes (Mader, M 2017). This fact is applicable to the voters who are the supporter of the leftist parties.

### **Caste**

Caste continues to be a determining factor in voting behaviour in India. It has deep roots in society and constitutes an important basis for social relations at all levels (Akhter, Z. 2018). Despite the adoption of various provisions that prohibit action and discrimination on the basis, the caste continues to be a determining factor in political behaviour. The politicization of caste and casteism in politics has been a well-known reality of the Indian political system (Usman, A.,2017) The political parties in India, without exception, in formulating their policies, programs and electoral strategies always keep the caste factor in mind. Rural voters pay special attention to the caste of the candidate. Despite the adoption of democratic values that conceive a society free from casteism, the caste continues to characterize politics in India (Devi Y. S, 2021).

### **Charisma**

One important factor of voting behaviour is Charisma. It means the exceptional quality of a factor and overrides group elements leader that becomes a source of attraction and reverence for the people in large numbers in an opposite sense, It also means a source of fear to many people because they do not speak or dare to speak against the wishes of a powerful leader (Takens, J 2015). Fortunately, in our country, the constructive aspect of charisma has had its role at the time of the election. The enormous participation in the meetings faced by imposing personalities such as Nehru, Indira, Vajpayee, Modi and a sudden change in the minds of the voters in response to the appeals launched by such great figures can be considered concrete proofs of the role of the charisma in the electoral behaviour of our people (Williams, E. A 2009). The slogan of "GaribiHatao" performed miracles in the 1971 elections, the personality of Mrs Gandhi after India's miraculous victory in the Bangladesh war had the same wonderful impact on the mind of the electorate in the State Assembly elections of 1972. The image of Jayaprakash Narayan had the same effect in the elections of 1977. The personality of Modi, BJP won the election of 2014.

### **Education**

It is often seen that the educated people take more interest in casting their vote as compared to the illiterates because they know the importance of their right to vote and consider the use of this right a national duty (Hansen, E. R 2021). They know that they can elect the government of their choice by executing their right to vote. Thus, education affects the voting behaviour of person and with the spread of education the ratio of the use of franchise is also increasing and during the election of the 16th loksabha, the percentage of voting had gone up to 66.38% which was quite high in comparison to previous elections.

### **Conclusion**

These are thus the important determinants of voting behavior in India. The continuity in the operation of India's political system as a developing democratic political system is gradually training the Indian voters. The process of emergence of an issue based political struggle in place of a caste or religion or personality dominated struggle for power is very slowly but gradually taking shape. Elections occupy a prominent place in the democratic government. It is a means through which people express and enforce their political opinion and regulate political organization of the society. However, the behaviour of a voter is influence by several factors such as religion, caste, community, language, money, policy or ideology, purpose of the polls, extent of franchise and the like political parties and groups make use of these variables for the sake of winning the battle of the ballot box. It is therefore, imperative that the use of these determinants should be avoided and elections should be conducted in a very free and fair manner. It also depends upon whether the system allows freedom of thought, expression and association to the people. Mere presence of an electoral system does not make a political system democratic. The will of people is expressed through voting in elections and therefore, all undemocratic and unfair means like manipulating and rigging need to be avoided in the elections. No such action is taken which would in any way undermine the popular will expressed through ele



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