## Population Distribution Of Yerala River Basin: A Case Study Of Southern Yerala Basin

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**Abstracts**

This paper deals with the basic nature and characteristics of population distribution in Southern Yerala River Basin. Yerala River Basin, being the part of Yerala River of experienced substantial population growth in the last few decades. The purpose of the study is to highlight the trends of population growth, identify the densely populated areas, analyse the distribution of population as well as predict the future expected population of Southern Yerala River Basin. The source of information regarding population had been procured from Directorate of Census Operation, Government of India, includes two districts (Satara and Sangli) in Maharashtra. Different cartographic tools like Decadal Population for analysis purpose. Thus, it was observed that population of the Yerala River Basin had steadily increased by the passage of time and high concentration of population had been found in the heart of the Southern Yerala River Basin. By analysing population distribution, it has been affirming that the present population size will be twofold in the near future.

*Keyword:* - demographic factors, Growth population, population change in distribution of population

**Introduction: -**

**D**ynamics of population is one of the prime aspects of geographical studies. The demographic factors such as population growth, population density and its distribution, sex composition, etc. taken into consideration to understand the condition of the region.

**Growth Of Population: -**

Population growth is the most fundamental demographic factors with which change in population during specific time assessed. Table No.1 elaborates the population growth and its decadal and annual variation for the period of 1970-71 to 2010-11.

The decadal variations of child population growth in Karnataka state are observed by using census data from, 1980-81-2000-01. He concluded that during the last two decades there has been drastic change in the growth of child population under the age of six in the Karnataka. Most of the districts in the southern region have registered negative rate of growth in child population. The growth rate of female child population was negative

in most of the districts of the southern region'. (Lakshmana, 2008)

After 1990-91, growth rate of population shows decreasing trend. This is due to literacy level improvement and adaptation of family planning program. The growth of population in any region is an index of its economic development, social awakening, and many other characters.

The general total population growth has been gradually increasing up to the year 1970-71. Only 1990-91 and 2010-11 decades showed reverse trends. There was severe environment change and due to increasing drought prone area, migrant people increased in the Yerala river basin.

**Southern River Basin**

Southern river basin is selected randomly for the sample analysis. No any exacting criterion is applied for the selection. However, it is seen that, they are making representation of the tahsil. During the selection of the representative villages, it is cared that the villages should be under southern river basin. Here, all villages from southern river basin are selected for the purpose, and total villages are selected for the case study also.

'The concept of population changes or growth of population is often used to connote the change in the number of people of a province during

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Page No. 74

a precise period of time, irrespective of the fact, whether change is Negative or Positive. Such a change can be measured both in terms of complete numbers and in terms of percentage. While it is easy to determine the change in complete number by subtracting the number of populaces at a previous point in time that of afterward point in time.'

The growth of population change in any area is an index of its economic development, social initiation and many other characters. The growth of population is one of the important factors associated with man's occupancy. In other words, it flows in size from time to time and people journey for the time being or permanently both within the administrative limitations and transversely them.

The demographic factors and social factors influence the growth rate of population. The present pattern of population growth is simply the latest phase of census of growth trend in the past. The trends of population growth are basic to the change in the overall geographic nature of any area.

The purpose of this study area is to examine the dynamic of population number in the study region during 1970-71 to 2010-11 in the context of decades' (1970-71 to 2010-11) broad implication. Such analysis will yield not only understanding of the current demographic situation in the study region but will also provide clues about the possible trend in this regard in the years to come. This, in turn, will give a measure of social problems, in the district and its region that will be called upon to solve.

Southern Yerala river basin covers Tasgoan and Miraj taluka. In 1970-71, population change observed that, some village at the time of 1960-61 census, Satara district comprised of nine talukas and two mahals that among themselves included 1960 inhabited villages and 10 towns. During 1960-61 to 1970-71, the mahals were up-graded as talukas and raised their number to eleven. At the time of 1970-71 censuses, the district had eleven tahsils comprising of 1167 villages and 14 towns. However, there have been certain changes in to the number of villages within the tahsils during the previous decade. With the upgrading of hamlets (wadis) in the district, the number of villages has gone up to 1739. Consequent upon the declassification of five towns and with the creator of one town qualified the specific criteria to be declared as town, the number of towns in the

district has gone down from 14 in 1970-71 to 10 in 1990-91.

In 1970-71 to 2010-11, southern Yerala river basin has been observed the change of population, male and female population, total literature, male and female literature assessed to demographic change.

## Study Area: -

The study area lies in west part of Maharashtra state bounded by Latitude $16^0$ 55' to $17^0$ 28' N and Longitude $74^0$ 20' to $74^0$ 40' E. falling in part survey of India topographical sheet no 47 K – 5, 6, 7, 8, 10, 11, 12, 47 L - 9 on the scale 1:50,000, it covers total area of 3035 km² includes two districts (Satara and Sangli) in Maharashtra. These districts experience a tropical wet-dry climate characterized by alternating wet and dry spells. The study area receives rainfall during South-West monsoon from June to September. The distribution of rainfall is not even all over the area.

## Objective: -

1. The study is aimed at review the determining population growth in Southern Yerala River basin.
2. The study is analysis at in population distribution of Southern Yerala River basin.

## Research Methods: -

Order to review the 'population census' of Southern Yerala River Basin in relation to its various census and demographic profile of have been examines. The other sources of information were the annual reports of district population census, Ministry of Human Resource Development, Government of India, 2011 have been referred. Apart from above mentioned sources, various books, articles and the papers presented in various conferences have been reviewed to highlight the various quantitative and qualitative aspects of literacy phenomenon in relation to changing scenario of Satara and Sangli district.

## Review Of Literature: -

**1. Bhagat and Hassan (1994)** have indicated that the adjustments in major ecological boundaries and corruption of assets on the planet during the only remaining Century particularly after 1950 was not just because of the quick development of populace yet additionally attributable to the heightening of utilization of petroleum derivative, mechanical creation and the development of the economy, which

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Page No. 75

have been a lot higher than the pace of development of populace. Subsequently, the debasement of common assets is an intricate exchange of populace development, development of utilization of assets per capita, progression of innovation and the later one is significantly more significant than the previous one.

**2. Cropper and Griffiths (1994)** indicated that monetary development would not really take care of the issue of debasement of backwoods. Additionally, higher populace development prompts higher deforestation and consequently as they would like to think, controlling populace development is the best technique for decreasing the pace of deforestation. Additionally, deforestation in non-industrial nations are likewise because of market disappointment emerges out of unclear property right, zero private expense of deforestation and as the majority of the destitute individuals has no property right, they don't have the motivation to utilize backwoods land.

**3. Goodstein (1999)** has contended that the less fortunate tends to have more kids and spent less on conception prevention for their future security. Hence, the family size and populace development are fast in many immature and non-industrial nations. The rising populace in any event, for supportable exercises upgrade tension on common particularly woods assets.

**4. Pandey (2000)** expanded corruption of the climate in the North Eastern Region is because of unpredictable felling and cutting of trees, moving development and mining and expanded human exercises towards gigantic use of normal assets, especially woodland, the atmosphere and nature has been unfavorably influenced.

## Change In Distribution Of Population
## (1970-71 to 2010-11)

A. CHANGE IN HIGH POPULATION (ABOVE 75 percent)

B. CHANGE IN MEDIUM POPULATION (50 TO 74 percent)

C. CHANGE IN LOW POPULATION (25 TO 49 percent)

D. CHANGE IN VERY LOW POPULATION (BELOW 24 percent)

## Change In High Population
## (ABOVE 75 percent)

Study of population change in southern river basin, table No.6.1 shows that, high population change in Kavathe Ekand and, Waghapur, Biranwadi, Wasumbe, Biranwadi, Matkunki, Manjarde, Narsewadi, Bendri, and Shirgaon kavathe, Shirgaon kavathe. These villages found high change in population due to, educational and medical facilities are increased in the region.

The problem of rapid population growth is one of the most serious problems confronting humanity and it has gradually assumed frightening proportions. Some thinkers even regard the problem of explosively population growth as one of the three major obstacles to the progress of the world -the human bomb, over population and the gap between the rich and the poor.

In our country, even a small increase in percentage of population matters a lot particularly when birth rate is very high which means addition of non-productive percentage of population every year. There is increase in the number of children because of declining infant mortality in the country. Therefore, birth and death rate play an important role in the growth of population of any geographical area. Population growth is also affected by social and political factors. 'Social and political factors may predispose towards population growth. Social customs as ancestor worship among the Chinese, polygamy among the Muslim peoples and early marriage among the Hindus have encouraged population growth'.

The concept of distribution of population is concerned with aerial variation and aggregative parts of the statistical units. 'The concept of distribution of population though not identical is so intimately related to each other that there is a genuine reason to discuss them simultaneously under the same chapter. In the earlier years of history of human settlement, when the distribution was not difficult to discover with the spread of population into vast aerial units of irregular administrative sine, the controls of such patterns have become more and more complex defying an easy interpretation. The analysis of population distribution holds an immense significance for population geographers as its successful understanding holds the key to the

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analysis of entire demographic character of an area. First of all, a distinction must be made between population distribution and density. The distribution of population is more location while the density is more proportional. The former refers to the spatial pattern in which the population finds its location such as linear, dispersed, nucleated, agglomerated etc. and the latter is concerned with the ratio between the size of population and area. Thus, when one is dealing with distribution the concern is more for the pattern of spread of population and when one is dealing with density the concern is more for some kind of man land ratio'.
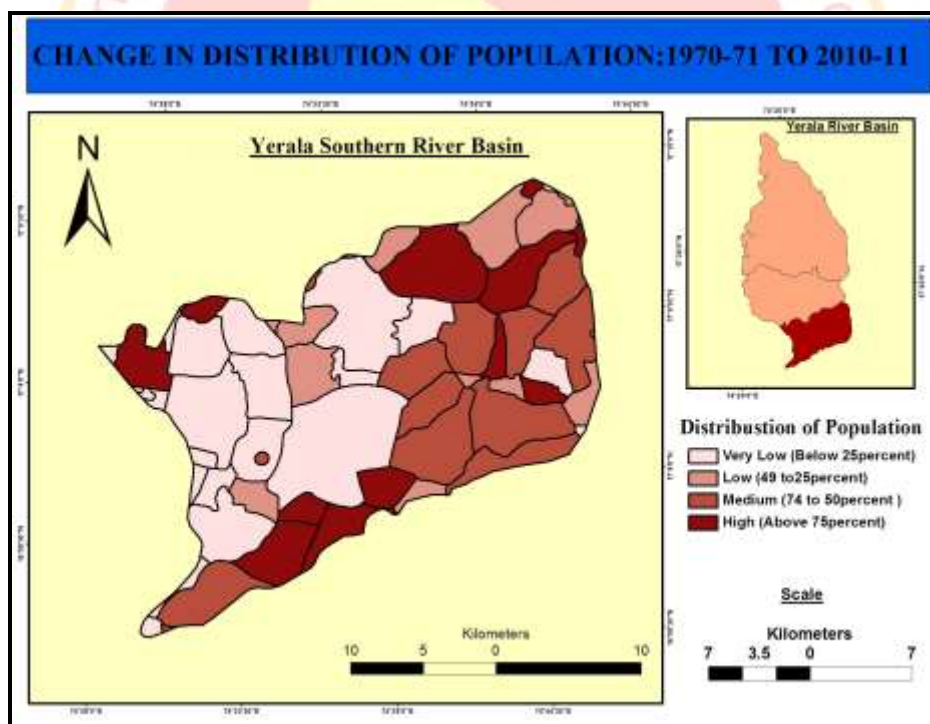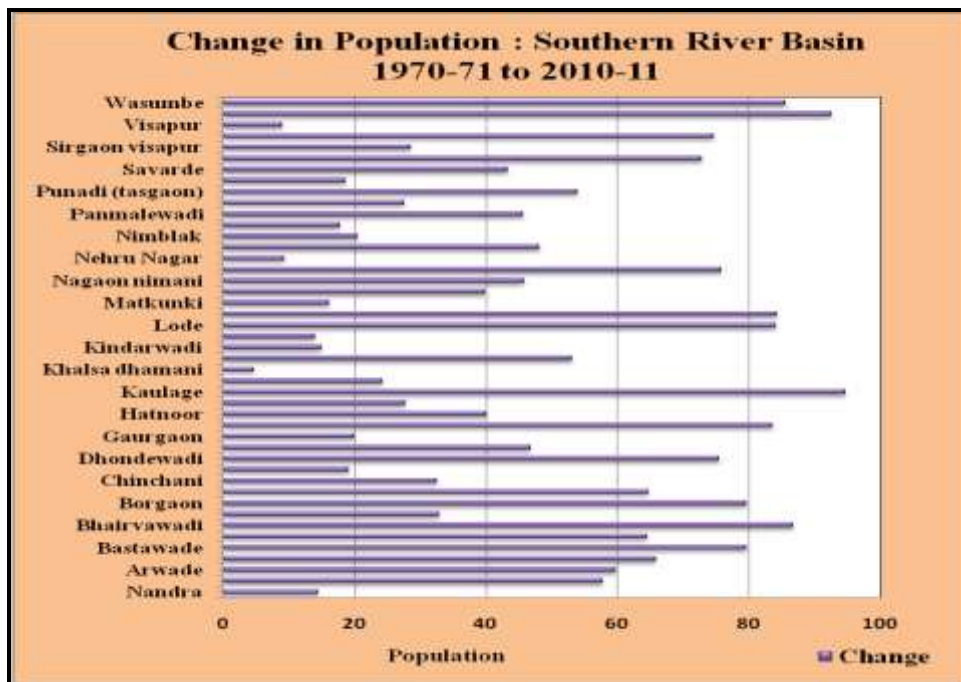
Population of every geographical area is increasing one. It is increasing rapidly in some places while slowly in some geographical area. 'It shows rapid trend in areas where there is scope for economic development and where several factors favor human settlement. In areas, where conditions are favorable for the development of agriculture, industries, transportation and trade, the carrying capacity of land is high and such areas can accommodate more people'

### Table No.1 Change in Population 1970–71 to 2010–11

| Sr.No. | Name of Villages | 1970-71 | 2010-11 | Change |
|---|---|---|---|---|
| 1. | Alate | 1767 | 2068 | 14.55 |
| 2. | Arwade | 1643 | 3893 | 57.79 |
| 1. | Balgavade | 909 | 2261 | 59.79 |
| 2. | Bastawade | 1179 | 3449 | 65.81 |
| 3. | Bendri | 1823 | 1015 | 79.60 |
| 4. | Bhairvawadi | 931 | 2624 | 64.51 |
| 5. | Biranwadi | 1067 | 8094 | 86.81 |
| 6. | Borgaon | 1555 | 2319 | 32.94 |
| 7. | Chikhal gothan | 1794 | 8765 | 79.53 |
| 8. | Chinchani | 1203 | 3400 | 64.61 |
| 9. | Dhavali | 3041 | 4510 | 32.57 |
| 10. | Dhondewadi | 2486 | 3076 | 19.18 |
| 11. | Dorli | 481 | 1958 | 75.43 |
| 12. | Gaurgaon | 777 | 1461 | 46.81 |
| 13. | Hatnoli | 1698 | 2122 | 19.98 |
| 14. | Hatnoor | 1293 | 7865 | 83.56 |
| 15. | Kacharewadi | 1606 | 2674 | 39.94 |
| 16. | Kaulage | 1071 | 1481 | 27.68 |
| 17. | Kavathe ekand | 516 | 9881 | 94.77 |
| 18. | Khalsa dhamani | 1177 | 1554 | 24.25 |
| 19. | Khujagaon | 3554 | 3731 | 04.74 |
| 20. | Kindarwadi | 1221 | 2607 | 53.16 |
| 21. | Limb | 1089 | 1280 | 14.92 |
| 22. | Lode | 877 | 1020 | 14.01 |
| 23. | Manjarde | 2257 | 14204 | 84.11 |
| 24. | Matkunki | 1070 | 6777 | 84.21 |
| 25. | Morale ped | 1296 | 1545 | 16.11 |
| 26. | Nandra | 9046 | 15017 | 39.76 |
| 27. | Nagaon nimani | 1167 | 2154 | 45.82 |
| 28. | Narsewadi | 1664 | 6896 | 75.87 |
| 29. | Nehru Nagar | 940 | 1037 | 9.35 |
| 30. | Nimani | 1298 | 2505 | 48.18 |
| 31. | Nimblak | 2146 | 2695 | 20.37 |
| 32. | Padali | 1355 | 1650 | 17.87 |
| 33. | Panmalewadi | 1114 | 2051 | 45.68 |
| 34. | Ped | 607 | 838 | 27.56 |
| 35. | Punadi (tasgaon) | 3963 | 8602 | 53.92 |
| 36. | Savalaj | 1569 | 1927 | 18.57 |
| 37. | Savarde | 1940 | 3419 | 43.25 |
| 38. | Shirgaon kavathe | 1392 | 5130 | 72.86 |
| 39. | Sirgaon visapur | 1203 | 1686 | 28.64 |
| 40. | Vijay nagar | 1272 | 5027 | 74.69 |
| 41. | Visapur | 2278 | 2502 | 08.95 |
| 42. | Waghapur | 2847 | 37945 | 92.49 |
| 43. | Wasumbe | 915 | 6332 | 85.54 |
| | Total | 76097 | 199747 | 61.90 |

(**Sources:** Population census of Maharashtra, 1970-71, 2010-11, Computed by researcher)

Change in Population : Southern River Basin 1970-71 to 2010-11



CHANGE IN DISTRIBUTION OF POPULATION:1970-71 TO 2010-11

**Map No.1**

## Change In Medium Population
## (50 TO 74 percent)

Table No.1 can be observed that, Arwade, Balgavade, Bastawade, Bhairvawadi, Chinchani, Kindarwadi, and Punadi are under medium population change. Since that, it is not worth mentioning here that the number of villages in each tahsil is either served or un-served by medical facilities. Therefore, the percentage of villages having medical facilities in each tahsil has been considered. There are wide variations in the percentage of villages having medical facilities within the different tahsils in the region under study.

## Change In Low Population
## (25 TO 49 percent)

Borgaon, Dhavali, Gaurgaon, Kacharewadi, Nimani, Panmalewadi, Savarde, Sirgaon Visapur Khalsa Dhamani villages are observed under low population change. Relocation of towns' boundaries

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**Page No. 78**

and development in urban facilities created out migration of population in rural areas. Modern medical facilities, education, employment opportunities attributed out migration to urban areas.

### Change In Very Low Population
### (BELOW 24 percent)

Table No.1 shows that, Khujagaon, Alate, Dhondewadi, Hatnoli, Limb, Lode, Moraleped, Nehru Nagar, Nimblak, Padali, Savalaj, and Visapur villages have very low population change, these villages have unfavorable geographical condition, heaving landscape and under developed infrastructural facilities. This leads to out migration of the people of region in search of jobs or opportunities.

### Conclusion: -

The detail case study of demographic profile of Southern Yerala River Basin including distribution of total population, with this study, we came to know the fact that the population and its every element are largely influenced by various, varied physiographic conditions within the Southern Yerala basin. Along with these variables, which are the reflection of variable physiographic conditions, it also affected the population of Southern river basin in negative or positive manner. Change in distribution of female and male population is also observed. Worker cannot be avoided from the keen observation as workers are important contributory factor in the development of southern part of the basin. So, change in total main worker has also taken into consideration. Number of Non-workers also affects overall development of the basin compare to workers. Ratio of non-workers and their percentage in the basin is also observed. This case study especially deals with to determine the change in complete number by subtracting the number of populations at a previous point in time that of afterward point of time.

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Page No. 79