Chapter 07

Summary, Conclusions and Suggestions

The main purpose of this chapter is to sum up and give summary, conclusion and suggestions. The present study entitled, “A Human Resource Progress and Socio-Economic Study in Shrigonda Tahsil of Ahmednagar District” is based on collection, compilation, analysis and interpretation of data obtained from published and unpublished sources as well as through field investigation and analysis of relevant available maps prepared on the basis of various types of data. It is attempt to find out the relationship between physical, social and economic factors and population on the others.

The study is undertaken to socio-economic facilities and identifies the existing potentiality of the region. The study area is chosen mainly for its future development in terms of integrating the rural areas with urban areas. Since the agricultural, industrial, social and socio-economic facilities are most important factors in the human resource development. A present study has been accomplished with a view of identification, spatial distribution of human resources and socio-economic facilities. The study also includes level of development for human resources and socio-economic development. The significant part of the conclusion drawn on the basis of the study accomplished through proceeding chapters is as follows:

The first chapter deals with the introduction of the origin of the research problem and its interdisciplinary relevance and conceptual framework of human resource and socio-economic study. This chapter also gives some of the objectives and hypothesis in order to test and fulfill respectively. Source of data and information have been given in this section, the methodology adopted is briefly discussed, and the organization of the work is briefly tranced out in this chapter. The review of literature is also included in this section, because without earlier work, it is not possible to apply new techniques.

In the beginning, concept of human resource and socio economic development is consist of region and planning. The term Socio-economic development of any area depends upon the natural and cultural setting of the area and their optimum utilization. Hence, socio-economic characteristics of the study area have been studied at village
level. These characteristics area related to available human resources and present status of economic activity. It includes population structure, literacy, S.T. population, type of workers, i.e. main, marginal and non-workers. The data about proportion of workers engaged in various activities like cultivators, agriculture laborers, household industry etc. have been analysed.

People can make the best use of nature to create more resources when they have the knowledge, skill and the technology to do so. That is why human beings are a special resource. People are human resources. Education and health helps in making people a valuable resource. Improving the quality of people's skills so that they are able to create more resources is known as human resource development. Human Resource refers to the number (quantity) and abilities (mental and physical) of the people. Though, there are differing views regarding treatment of human as a resource, one cannot deny the fact that it is skills of human that help in transferring the physical material into a valuable resource.

The second chapter deals with the various physical aspects of the region under study. The physical setting is not uniform. It includes history of the region, location, position of the tahsil, ranking of the tahsil in the district, physiography, topography, geology, drainage, climate, soil, natural vegetation, and water resources.

Shrigonda tahsil is located in the southern drought prone zone of Ahmednagar district. The tahsil situated partly at Bhima, Ghod and Kuakdi River and canal basin. Tahsil length is 60 Km. from East to West and 51 Km. from North to South. The height of tahsil is recorded 600 mtr. above the sea level. Generally slope of tahsil is North to South.

The latitudinal extend is 18° 27’ 18” to 18° 51’ 54” North and longitudinal extend is 74° 0 23’ 24” to 74° 52’ East. It is surrounded by Parner and Nagar tahsil to the northern part, Pune district to the west and south - east Karjat tahsil. It’s an area of 1630 Sq. Km. is the third rank of tahsil in Ahmednagar district. It is historical and religious place situated on the bank of river Saraswati. Shrigonda is the third largest tahsil in the Ahmednagar district with geographical area about 1629.94 km² and occupies 9.56% of the total area of the district. The total population of the Shrigonda tahsil is 315975 as per the census of 2011.
To the northern part of the tahsil Harishchandra-Balaghat mountain goes from West to East. The small branches of Sahyadri. The tahsil is covered with mountains, small hills, plateau and plains created by rivers. The study area is located on the plateau of Ahmednagar district. It is a part of the Deccan traps. Physiographically, there are more variations in the Shrigonda tahsil. The highest maximum elevation in the study area is 849 M above MSL at the Pan hill near the village Kothul and lower minimum elevation is 500 M above MSL at Pedgaon near the left bank of river Bhima.

Physiographically study area is divided by the hill range of Baleswara running NW to SE that separates very little part of the tahsil to North and maximum area to South. Locally it is also known as Saklai- Konjai- Khakiba-Mahadeo hill range.

The altitude variation of the study area is remarkable and almost 65% (1060 km²) of land surface area lies below 700 M contour and rest of the area amounts to 35% of the total geographical area. This indicates that vast stretch of area exhibits a plain topography except few undulations and dissection in topography.

The distribution of geological unit of tahsil are of four main type of rocks Low dissected basaltic plateau (14.45 percent), Moderately dissected basaltic plateau (8.99 percent), Highly dissected basaltic plateau (26.33 percent) and Undissected basaltic plateau (50.32 percent). The entire Ahmednagar district forms the part of the Deccan volcanic province. In Shrigonda tahsil, the trap rock is distinctly stratified and as in the rest of Deccan, the alternative beds of basalt and amygdaloidal preserve a striking parallelism to each other. To the eye, they appear horizontal, but surveys have shown that, the flows have a slight dip to the south and east.

The basaltic lava of the Deccan traps is the only major geological formations in the district. The traps flows are horizontal and numbers of flows occur in the district. The top layer of the flow generally consists of vertical and amygdule zeolitic traps. The vesicles (a small bladder or blister) are often filled by secondary silica, calcite and zeolites. The bottom layers usually consist of massive trap. The flows are generally separated by clays. The flows are reported to be associated with basic intrusive in the form of dykes. The average flow thickness ranges between 15 to 25 meters.
The region under study is the western part of the Maharashtra. The slope gently from west to east and the western part is hilly, while the eastern area is plain. Somewhere the area of the tahsil is undulating. The average height of tasil is 600 Mtr. Generally slope of tahsil is North to South. The maximum elevation of tahsil is at Kothul i.e. 899 Mtr. This place known as ‘Pantekadi’. Minimum height recorded in South region at bank of the Bhima River from Pedgon is 504 Mtr. Therefore elevation of tahsil is decreasing from North to South. The map gives the broad idea of the hilly regions and uplands in shrigonda tahsil. The north and north-east part the tahsil shows rugged topography. It is mainly the Harishchandra-Balaghat mountain ranges, which run along the entire northern part on west to east part of tahsil. The west and southern part of tahsil is plain region as compare to north region, it’s creating from Ghod and Bhima river basin. The topography of the region may be understood with the help of contour map prepared with 20 mtr. contour interval.

The plateau region of tahsil include Shedgaon, Bhangaon, Ghargoan, etc. the height of these region is 600 Mtr. The important topographical structure for wind wave energy from tahsil at the Kolgaon and Mandavgan hill ranges and southern part of Bhima river basin and Chinchani water tank.

The hilly area accounts to 16.71% of the total surface area of the tahsil and plateau covers about 2.62% of the total area of the tahsil and plain area spread over vast extent accounts to 80.67% of the total area of the tahsil. Mainly Hills, Plateaus and plain topographical features are present in the study area.

A general idea of drainage is essential in the study of irrigation and distribution of water resources. The source region of the rivers in the shrigonda tahsil lies in the western, north and south part of the tahsil. The main river of Shrigonda tahsil is Bhima under the tahsil catchments area of Bhima left bank canal. Most of region in tahsil under the part of Ghod, Hunga, Palse, Saraswati, Dev, Mandavi and Murdi rivers these streams and sub streams. The maximum length of river from 30 Km. the rivers are seasonal and has been flowing only in rainy season. Mandavi river region i.e. Mandavgan, Ruikhel, Banpimpari in these division under the Sina river catchments area. The central railways have divided tahsil in two parts drainage pattern. One is the eastern flowing river and second is western flowing river. The right bank river under the Sina and Bhima river and left bank river is Ghod river.
The main purpose of present study is to investigate and evaluate the social and economic condition and hence it is necessary to assess climatic condition, which has a great bearing on agriculture. It is the major source of livelihood of the people in the region. Shrigonda tahsil covers mostly semi-arid tract of the Deccan peninsula. It comes under the rain shadow region of monsoon zone of Ahmednagar district. The climate of the study area is characterized by a hot summer and generally dryness except during the southwest monsoon. The weather conditions throughout the year clearly demarcate three seasons i.e. summer, rainy (southwest monsoon & north-eastern retreating monsoon) and winter. The average annual rainfall is 522 mm. The distribution of rainfall is uneven. The daily mean maximum temperature is 39.1°C in summer and 11.7°C in winter. The intensity of rainfall is greater in the month of June. The amount of rainfall nearly 77% receives between four months (June to September). The remaining rainfall receives in October and November from the NE retreating monsoon. The Shrigonda tahsil comes under the effect of drought prone condition and rain shadow regions, rainfall is very irregular.

The duration of dryness is longer in the study area. During the months of hot summer (March to May) and particularly at noon the average relative humidity is less than 40%. The humidity rises at the end of May in the study area.

Soil is one of the important resources, which are associated with basic human needs. The soil of tahsil can broadly be classified in too few groups like, deep black and inceptials shallow black. The plain soil covering the region for Math, Kashti, Ajnuj, Pedgan, Sangavi dumala, Nimgaon khalu, Bori and Visapur etc. Which are situated on the bank of Bhima and Ghod river wide tracts of deep rich soils are found. Further up in the hilly areas to the north east of Kolgaon, Mandavgan, Kothul, Ghogargaon, Bhangaon, Dhorje for redish soil derived by residual weathering of the basalts in a tropical humid climate, deeper on the slopes than on the levels is found.

According to 2011 census, the area under forest is 1515.71 Sq.km. which is 8.89 percent of TGA. However, the quality of vegetation differs from area to area. The natural vegetation in the Shrigonda tahsil represents the “Southern Tropical Dry Deciduous” type and they are scattered. In Ahmednagar district 11.8% area is under the forest and out of it about 22% has been transferred towards the revenue department. In the Shrigonda tahsil the forest area spreads over 66 villages and
occupied an area nearly 9247.19 ha. It is 5.67% to the total area of the Shrigonda tahsil. This area that is under the control of reserved forest (6922.19 ha i.e. 4.24%) and unclassified forest, open forest and revenue department (2325.04 ha i.e.1.43%). Rest of the area is characterized by deforested area and one can find very low density of the trees in this area nearly less than 11 % in the study area. The main typical local species of tropical dry deciduous forest are Babhul (Acacia nilotica spp.), Neem (Azaderachta Indica.), Khair (Acacia catechu), Hivar (Acacia leucaphlora), Ghaypat (Agave sisalana) etc. are observed throughout the tahsil.

Rivers like Sarswati, Dev, Mandavi, Ghod, Hunga, Palsi and Bhima; the two dams have been constructed across catchments area of tahsil for Ghod and Kukadi. The water resource has been enriched by number of irrigated construction projects for the irrigation purpose like Kukadi, Ghod, Hunga project, KT weirs and minor irrigation schemes in the tahsil.

The third chapter deals with the human resource development in demographic perspective consisting of socio-economic facilities, population growth, population density, literacy, sex ratio, educational institute, student enrollment, social facilities are distributed villages according to the availability of different amenities and population served by the study area. Human resource is a factor of a prime importance in the economic development of a region. Secondary data of demographic variables are used for present study collected from the Census of India, 1951 to 2011 and Socio-economic abstract of Ahmednagar district. Ranking co-efficient method is used for the study of levels of human resource development. Choropleth method is adopted for the representation of co-efficient index.

During 1901 to 1911 Ahmednagar district registered a population growth rate of 12.86 percent as against 7.32 percent for Shrionda tahsil. District and tahsil growth rate of population is higher because of decrease in mortality rate. The course of population growth up to 1921 was undulating. The decades of marked increases regularly alternated with decades of small increase, while during 1911-1921 a negative growth was experienced. In that period Ahmednagar district registered a population growth rate of −22.32 percent as against −39.60 percent for Shrigonda tahsil. In 2001 to 2011 district population growth rate was decreased by 12.43 percent and tahsil population growth rate is also declined as 13.92 percent. The distribution of population related socio-economic development of the tahsil as well as district. The
density of population in Shrigonda tahsil and Ahmednagar district from 1901 to 2011. The course of population density up to 1921 was undulating in that year the density of district was 42 person per sq. km. and 29 person per sq. km. in tahsil. The decadal population density has increased from 1921 to 2011. In 2011 census population density of Ahmednagar district was 260 person per sq. km. and Shrigonda tahsil was 194 person per sq. km. the density of population rapidly increases in district and tahsil. The density of population in Shrigonda tahsil is lower than Ahmednagar district population density. The highest density of population is found in agricultural area, while it is the lowest in mountainous area. Thus, population is not distributed equally in all parts of the study area.

One of the important indicators of social development is the level of literacy. Literacy is basic component in socio economic development. The progress of literacy in the tahsil from 1901 to 2011. The literacy rate has increased from 14.97 percent to 64.94 per cent after independence that is 1951 to 2011. From 1901 to 1941 the literacy rate was very slow (3.77 to 7.68 percent respectively) because in that period education was not facilitate to people. Those people were traditional and superstitions do not have interest in education therefore literacy growth was negative. In 1951 the total literacy rate of the tahsil was 14.97 per cent. According to 1901 male literacy was 7.42 percent while female 0.20 per cent it became very slow because of subsidiary position of women therefore growth rate of women was very slow (0.20 to 6.13) that indicates the growth of socio economic development of nation is very slow it affects progress of nation. According to 1951 census male literacy was 23.45 per cent while female 6.13 percent. According to 2011 literacy rate of the tahsil became 66.94 percent. The male literacy has increased to 73.32 per cent while female up to 60.01 percent. After independence the female literacy made a considerable progress in the changing socio – economic condition in the tahsil. According to 2011 census the rural literacy has increased than 1991. i.e. 66.35 percent and urban up to 72.31 per cent. The situation of urban people and the availability of educational facilities have been affected the literacy rates. Resulting the literacy growth of urban area is higher than rural area. In 2011 census the rural literacy has increased than 2001. i.e. 66.35 percent (73.03 male and 55.09 female) and urban up to 72.31 percent (75.97 percent male and 68.40 percent female).
Sex composition of population is also an important aspect of population study. the sex ratio of Shrigonda tahsil from 1901 to 2011. Shrigonda tahsil records lower sex ratio, which is not ideal for social stability. According to 1901 census sex ratio was 962 in Shrigonda tahsil. In 2011 data shows the sex ratio’s continuous decline which was 923. From 1901 to 2001 data shows sex ratio’s continuous up and down in Shrigonda tahsil. The average sex ratio of tahsil is 946. According to 2011 the sex ratio of tahsil is 923 it is indicator of un-development of the Indian society because of various traditional thinking of society. In tahsil village wise sex ratio according to 2011 census is highest from Nembavi it is 1039 and second is 1036 Mungusgaon, Vadghul 1004 and Chikalthanwadi 1001. Nine villages have been more than 1000 ratio of female; its indication of development of people and secondly seasonal migration of male for employment in nearest urban centers.

Life Expectancy is one of the parameters to assess manpower resources. Majority of the studies have applied life expectancy as the indicator of development and consequently the quality of manpower. The spatial variations of life expectancy have been studied on the basis of available data for the year 1971 to 2011. Life expectancy in both male and female have been increased from about 55 to 70. The increasing trend of life expectancy may be due to the progress in economic development and improvement of medical facilities. With improved medical facilities and health care the average life expectancy increased in the region by 2011.

The proportion of below poverty line population may be one of the important indicator of human development. The cause of poverty not only lies in scarcity of natural resources but also in the system of distribution of economic development. the proportion of no. of families B.P.L. has been also reduced to 24.51 percent proportion of previous year. This scenario shows that the BPL families are decreasing. This is good indicator for the human resource development. The proportion of S.C. families are increased as compare to S.T. families (51.51 percent and 47.53 percent respectively). Total percent of B.P.L. families showing 24.51 percent. This means that any programme aiming at poverty alleviation should focus on socially backward class population.

Birth rate and Death rate is one of the another parameter of human resource development. The data remaining both death rate and birth rate show that there has been sharp decrease in death rate but slow decrease in birth rate. Consequently, natural growth of population has been increased from 1971 to 2011. This means that
the tahsil is still in the second stage of transition of population. The birth rate is the negative indicator of the economic development of a particular area. Generally, the birth rate is found less in the developed area and more in the backward area. The high death rate shows lower level of the human development. In the hilly and backward area of the tahsil the death rate is observed more because deficiency in the availability of medical facilities. In the eastern part of the tahsil, which is comparatively developed has observed low death rate.

Infant mortality rate as an indicator of social and economic development. According to the information of infant mortality rate has declined from 1971 (10.12 percent) to 2011(1.21 percent). It may be attributed to increase in age at marriage, improvement in medical facilities and female literacy.

Social amenities are important to human life and standard of living. The development of any society is depending on availability of social amenities. The human developments also depend on social amenities. The number of available educational institute in the tahsil is satisfactory. According to 2011 census data there are 381 primary schools, 54 high schools, 72 middle schools, 12 junior colleges and 7 senior colleges industrial school (Engineering college, I.T.I. polytechnic etc.) units are 04 and other institutions are progressing. According to 2011 census all type of educational institutes are increasing. Therefore, people are becoming aware of the importance of education; this is good indication for the human resource development. The progress of medical facilities in Shrigonda tahsil from 1961 to 2011 census formal growth is increasing, that’s why the day by day people are developing in accordance with that progress for all facilities. According to 2011 census hospitals are found 36, dispensaries 154, rp/mp is 39 and PHC are found 07. It is conclude to result by medical facilities are increasing therefore the lifestyle of human being is also changing. The villages are getting improved drinking water facilities all of the villages have available hand pump 114 (100 percent). Village depend on well water is 112 (98.24 percent). The tap water is 92.10 percent. Tank water is increased up to 39.47 percent. It is concluded that according to 2011 data the drinking water facility is improved all over the tahsil. The role of communication in terms of percentage of settlement and population served by post facilities, found in different parts of the study area. Postal facilities are not available in all villages of tahsil. Out of these, the post office facility is available to villages at a distance of less than 5 kms, 5-10 kms. and beyond 10 kms. Transportation facilities are divided in metalled road, un-
mettaled road, bus station and railway. It is increased up in 2011 in study area. Here, analyze the eight social amenities distribution according to 1981, 1991, 2001 and 2011 census. All of these amenities have been increased up to more than 70 percent and most of the amenities are 100 percent.

Fourth chapter covers the analysis of human resource and socio-economic development in rural sector at micro level study of villages in the study area, which is included population size of villages, group wise study of the villages, population according to size of villages, rural villages analysed with the help of growth, density, literacy, sex ratio, work participation rate, distribution of social amenities with the level of development in this villages, occupation structure, identification of coefficient index of human resource development with the help of score method which is potential of the village group. In the study of socio-economic importance of population analysis has been considered essential by most of the scholars because all these aspects are closely related. The study is mainly concerned with population characteristics and geographic factors. We are studying the micro-level, which means the study area is divided for six village groups and they have included sub-villages. The socio-economic study included in this topic is main important parameter of development in various villages as compare to another tahsil, as well as district. Therefore the important part of micro-level study in rural area for development of any region.

According to 2011 census the population group has been divided in to seven groups. They are showing from 500 to 50000 including village population. Villages in terms of population size and their percent to total inhabited villages in the tahsil. In Shrigonda Tahsil out of 114 inhabited villages, in the Tahsil 06 (5.26 percent) have a population of below 500, 15(13.15 percent) are in the size class 500 – 999, 22 (19.29 percent) In the size class, 1000 – 1499, 61 (53.50 percent) in the size class 1500 – 4999, 08 (7.01 per ent) in the category 5000 – 9999, 02 (1.75 percent) in the population range of 10000 – 49999 and exceptionally large sized (50000+) is not inhabited in any village. With the Tahsil, small sized villages of less than 500 account for 5.26 per cent, of medium sized (1500 – 4999) 53.50 per cent of the total inhabited villages, (5000 – 9999) large sized of population villages are 7.01 percent and very large sized (10000 – 49999) group of population is 1.75 percent villages. There is no village in last group (more than 50000).
The total numbers of groups are six. They have depicted the density including groups of villages. The 114 villages included in six groups and they are showing density (per 100 sq.km.). Limpangaon, Belwandi Bk, Yelpane, Kolgaon, Mandavgan and Adhalgaon are the groups of study region. According to the table highest villages included on Yelpane group (25), in this group, the area is 264.76 sq. km.

The village population size is below 500 and above 50000 difference classes showing in size and population. The total villages of Tahsil are 114 in this villages distribution of population is in various size groups. Below 500 size groups are smallest group showing number (06) and per cent of villages in 05 including population 1828 (0.70 percent) in this group lowest population size group.

The highest village size groups in 1500 – 4999 this groups included 61 villages (54 percent) and 162122 population (56.91 percent), second highest group is 5000 – 9999 included 08 villages (7 per cent) and including 56504 population (19.83 percent), next is 1000 – 1499 group included 22 villages (19 percent) including 25981 population (9.12 percent). In largest group of villages size is 10000 to 49999 including only two villages (2 percent) and they are showing 26402 (9.26 percent) population and second group of size 500 to 999 including 15 villages (13 percent) they are showing on 11672 population (4.09 percent). The table shows scenario of total Tahsil and including village population size. These tables help development in socio-economic condition of Shrigonda Tahsil.

In 2001-11 census Belwandi Bk. group shows minimum growth rate of population which was 6.20 percent lower than the total tahsil (12.87 percent). In this year Limpangaon group showing maximum growth rate of population (18.72 percent). Another group is Kolgaon 15.13 percent, Mandavgan 14.88 percent, Yelpane 12.23 percent and Adhalgaon 7.77 percent growth of population. The total villages growth rate decreased by 9.72 percent than the total tahsil 12.87 percent and total town 18.27 percent.

Population growth rate in 1951 to 2001 was in variations of groups. Limpangaon group shows maximum change of population growth which was 402.94 percent and Yelpane group showing minimum change (186.89 percent) growth rate of population. Average of total villages (236.73 percent) and total tahsil (237.95 percent) is similar than the total town growth rate of population (249.46 percent).
Distribution and density are most important and fundamental factors in the study of population geography. The average density of Shrigonda tahsil was 58 persons per sq. km. according to 1951 census. And according to 2011 census the density of total tahsil have 208 persons per sq. km. According to 2011 census Mandavgan groups recorded lowest density of population which was 132 persons per sq. km. where Limpangaon group records maximum population density which was 344 person per sq. km. In this year town (372 person per sq. km.) density was greater than the total villages (193) and tahsil (208). All over the groups population density was increased that the total villages town and tahsil which was Belwandi Bk. (245) and Yelpane (215).

Population density in percent compare to 1951 to 2011 census. Mandavgan group recorded lower (0 percent) growth of population where as Limpangaon group records maximum (105.98 percent) growth of population density. Village group recorded 244.64 percent density, tahsil has been 258.62 percent and town was 247.66 percent population density. Natural, cultural and social factors affect increase or decrease in the density of population.

Rural village density as compare to town density is lower than the 1951 to 2011 but change is higher than the village density (244.84 per cent). Town density is increasing because of various amenities are available to town e.g. education, medical, employment, social and cultural etc. so the people attract to the city area. Increase or decrease of density depends on physical and social factors.

One of the important indicators of social development is the level of literacy and educational attainment. According to 2011 census the highest literacy found Belwandi Bk. group i.e. 68.03 percent and lowest Mandavgan group that was 65.05 percent. Other four groups literacy ratio is moderate like Limpangaon 65.72 percent, Yelpane 65.32 percent, Kolgaon 67.46 percent, Adhalgaon 66.48 percent. The literacy rate of the town was increased according to 2011 census i.e. 72.31 percent than the total villages and tahsil 66.35 percent and 66.94 percent respectively. The all over the group literacy rate was positive from day by day because human development growth was positive in society.

The change of Literacy in percent compare to 1951 to 2011 census. Limpangaon group records lower (293.06 percent) growth of literacy. Here as
Adhalgaon group records maximum (588.91 percent) growth of literacy. Village
groups recorded 358.53 percent literacy, tahsil has been 347.16 percent and town was
265.01 percent literacy.

The progress of male and female literacy in tahsil from 1901 to 2011 is
presented in table and figure. The results of the 2011 census also indicated that there
has been a decline in the absolute number of illiterates for the first time since
independence during 1901 – 2011.

Sex ratio of population is an important aspect in socio-economic development.
Sex ratio of various village groups according to 1951 to 2011 census. In 2011 census
Mandavgan group recorded 931 females per thousand males and which was
maximum in village group in tahsil. The Belwandi Bk. group 909 sex ratio was
minimum in this decade. Total villages recorded 920 sex ratio, which was lowest than
the town and tahsil (940 and 923 respectively) other village groups i.e. Limpangaon
(922), Yelpane (926), Kolgaon (918) and Adhalgaon (919), females per thousand
males according to 2011 census.

The change in percent compare to 1951 to 2011 data. All over the sex ratio
was negative except Yelpane group sex ratio (7.54) was positive to all over the group
and tahsil. Shrigonda tahsil as a whole recorded –3.35 percent sex ratio as compare to
six decades. Minimum change recorded at Belwandi Bk. group (-4.51 percent) and
maximum sex ratio change recorded in Yelpane group (7.54 percent). All the Village
groups recorded decrease in trends of sex ratio.

Working force participation rate shows variations in its distribution among the
tahsil of the region. It is increasing according to 2011 census as compare on 2001
census. The 2011 census reveals that the total number of workers increase during the
2001 census. Table no. 4.9 shows that 56.56 percent of population of Limpangaon in
2011 comprised of workers as against 34.6 percent as against 2001 census. Belwandi
village group has 56.86 percent and 48.7 percent respectively. Yelpane group of
villages shows 59.40 percent in 2011 and 53.70 percent of population according to
2001 census. It is same in Mandavgan group of villages 61.70 percent and 48.5
percent in 2001 census. Adhalgaon group showing 57.07 percent in 2011 and 46.1
percent in 2001 census. According to 2011 census, the sharp increased of main
workers as compare to marginal workers. The proportion of marginal workers in both
year has also increase in urban centers. The work participation rate is higher in rural areas than in urban areas. The reasons for higher work participation rate of both males and females in rural areas than in urban areas are larger concentration of population in rural areas and diversification of agriculture related activities like horticulture, pisciculture, dairy and poultry farming, etc.

On the basis of that the region can be divided into three groups. High Participation Rate included (above 59 percent) Mandavagan and Yelpane village groups fall in this category of high participation rates. Mandavgan and Yelpane group of village 61.70 percent and 59.40 percent population is engaged in work respectively. Medium Participation Rate shows (57 to 59 percent). This is the middle spread zone in the region. Kolgaon and Adhalgaon group of villages included in third group. The average participation for this region is 57.5 percent which is lower than the village average (58.37 percent). Low Participation Rate (Below 57 percent) Belwandi Bk., Limpangaon group of village comes under this grade. Participation rate is lowest and it is only 56.86 and 56.56 percent.

Social amenities are improving living. Many types of social amenities are provided, such as education, medical, communication, transportation, post and telegraph, drinking water supply etc. Distributions of social amenities are different from place to place. Therefore in Ahmednagar district and tahsil social amenities distribution is different. The distributions of Social amenities in village groups are also different. The social structure and distribution of amenities in Shrigonda tahsil are varying from each village group.

In 1971 to 2011 census, education facilities shows higher change in Kolgaon group (494 percent) because Kolgaon group is in developing stage. And near from urban centers, therefore people are aware of the importance of education. Therefore in Kolgaon group educational amenities are developing. Only Adhalgaon village group change is very low i.e. 129.31 percent. Medical facilities shows that the change in 1951 to 2011 census. In these six decades maximum change is recorded in Limpangaon village group (1071.58). Because Limpangaon group is nearest from tahsil headquarter, situated on Pune-Jamkhed and Ahmednagar-Daund highway and the village is improvement in other facilities. Belwandi Bk. group recorded lowest (361.72 percent) change in 1971 to 2011 census in medical facilities. Drinking water
shows the change in 1971 to 2011 census. In this two decade maximum change is recorded in Kolgaon group (127.20 percent) and Adhalgaon group recorded minimum change (6.47 percent) in drinking water facilities. Communication facilities show the Mandavgan village group recorded highest change (54.54 percent) in 1971 to 2011 census. But Yelpane group recorded lowest change (2.73 percent) in all village group. Transportation facilities show groups recorded minimum change such as Belwandi Bk. (34.70 percent), Yelpane (29.82 percent), Kolgaon (31.53 percent), Mandavgan (24.94 percent) and Adhalgaon (47.22 percent).

The ranking co-efficient index result shows that the study region has low index in 2.77 shows Yelpane and in higher index shows 4.11 Adhalgaon group of village shows lower levels of social amenities development. It is classified into their three types of regions. High potential region (Index below 2.9) is known as sufficiently region. Yelpane group of village is in this category. In this group of villages high potential region of social amenities than other group of villages in the study region. Medium potential region (Index 3.0 to 3.99) is known as expected region. Expected region means the region which denotes medium availability of social amenities. Means developing stage of region. Map 4.20 showing Limpangaon, Kolgaon, and Mandavgan group of villages remaining 3.44, 3.22 and 3.44 co-efficient index of social amenities are respectively. It is essential for planning to increase the social amenities in expected region of Shrigonda tahsil. Low potential region (Index above 4) is known as underdeveloped or backward region. It lacks facilities; less contact with developed region are the main problems of some areas of this region. Co-efficient index of social amenities shows Belwandi and Adhalgaon group showing low index as compare to other groups (4 and 4.11 respectively). Therefore it is most need to develop facilities. The facilities should be provided to integrated development planning in this region.

All activities are related to occupation we are expressing the situation of 1971 to 2011 census report they are calculated by percentage of the occupation categories. In the region, the largest group labeled as workers are related to agriculture. Out of total working force, 74.8 percent are directly engaged in agriculture sectors. Cultivators occupation show the change from 1971 to 2011 Belwandi Bk., Kolgaon and Adhalgaon group of village change in cultivators percent is positive and remaining groups change negative such as Limpangaon (-33.39 percent), Yelpane (-
13.82 percent), Mandavgan (-2.37 percent). Agriculture is mostly depend upon monsoon rainfall. Therefore day-by-day cultivator’s activities are decreasing. In agriculture activity numbers of peoples day by day are decreasing due to cost benefit ratio of agriculture. Therefore peoples are not attracting at agricultural activity. Agriculture labour shows Limpangaon (-5.58 percent), Belwandi Bk. (-11.85 percent), Mandavgan (-0.82 percent) and Adhalgaon group (-24.20 percent) change in number of agriculture labour in 1971 to 2001 is negative. Only Yelpane and Kolgaon groups (10.71 and 19.52 percent respectively) change is positive. Household industries show 1971 census Kolgaon group (3.15 percent) was highest in this activity and lowest in Adhalgaon group (2.02 percent). According to 2011 census highest percentages in household industry activity is in Limpangaon group (2.20 percent) and lowest is Kolgaon group (0.97 percent). Other worker shows positive change in percentage in Limpangaon, Yelpane, and Adhalgaon group and Belwandi Bk. and Kolgaon and Mandavgan group of villages the change was negative. Because in this group the other activities are not developed. In other groups positive type of growth seen because they comparatively nearest from urban place and highway so that develops administrative, educational and market centers.

The present study of Human resource development in shrigonda tahsil in terms of quality and quantity. The ranking co-efficient index result shows that the study region has low index in 2.5 in Yelapane and is higher index indicates which is 4.6 Adhalgaon shows lower levels of human resource development. High potential region (Index below 3) is known as dynamic region. Yelpane group of village is in this category. In this village group high potential of human resource development than other group in the study region. Medium potential region (Index 3.1 to 4.1) is known as prospective region. Prospective region means the region which denotes vast resource potential but is less developed due to technical and socio-economic levels of utilization and transformation of resources. In this region there are three village groups like Limpangaon, Belwandi Bk, and Kolgaon. It is essential for planning human resource development in prospective region of shrigonda tahsil. Low potential region (Index above 4.1) is known as problematic region. It lacks of infrastructural facilities, less contact with developed region are the main problems of some areas of Shrigonda tahsil. Two village groups face this problem. As per co-efficient index of human resource development Mandavgan and Adhalgaon regions have very low
human resource development. Development planning should be taken as an important objective for this region because balanced regional planning is not only economic issue but also a political and social necessity infrastructural facilities should be provided to integrated area development planning should be taken earlier in the study area.

The levels of socio-economic development reflect the economic as well as socio-economic setup of a region and spatial organization of society. There exist close relationship between the spatial distribution of facilities and level of well beings. Uneven distribution of socio-economic facilities creates underdevelopment.

Fifth chapter is devoted to economic analysis with the help of agricultural development, land use, cropping pattern, irrigation facilities of area under different crops, land utilization, area irrigated by different crops, progress of rural electrification, electricity in use of agriculture, livestock and identification which compared in study of study area and district. The success of National Planning is dependent upon the proper utilization of our land resources. This needs a proper appraisal of the existing patterns of land utilization at micro-regional level and their proper co-ordination. The land use is differing from place to place. The land use of district and tahsil. According to 1971 report forest area was 11.61 percent and in 2011 report forest area was only 8.32 percent. In this three decades change is negative in Ahmednagar district. In Shrigonda tahsil this change also slightly negative (9.47 to 9.45 percent). Day by day Shrigonda tahsil situation was towards developing. Therefore land use comes under roads and settlements. According to 1971 report, area was 10.19 percent not available for cultivation and 2011 report was 10.60 percent. This decadal change was positive in tahsil. According to the table other cultivation area recorded in 1971 was 1.86 percent and it was increased in 2011 up to 6.14 percent for Ahmednagar district. The same situation for Shrigonda tahsil, according to 1971 report 4.41 percent area under other cultivation and it was increased up to 5.64 percent in Shrigonda tahsil according to 2011 report. Both the changes were positive for district and tahsil.

In Ahmednagar district fallow land was increased. This change was positive, according to 1971 to 2011 report. In this decades change in Shrigonda tahsil was also positive. According to 1971 report net area sown for Ahmednagar district was 73.54 percent and 2011 reports recorded as 69.59 percent this is negative change for district.
In Shrigonda tahsil according to 1971 data it was 74.64 percent and 2011 report recorded as 69.05 percent this is negative change in tahsil.

Agriculture is depending upon the natural condition, which is provided by nature if it is favorable, then agriculture flourishes. Ahmednagar district (north region) and Shrigonda tahsil is famous for food crops and cash crops because of fertile land and deep association of the people with agricultural practices.

Agriculture is most important activity in Ahmednagar district and Shrigonda tahsil. Shrigonda tahsils crops position for 1971, 1991 and 2011 census. According to above data area under crop is differing according to period such as Bajara, Wheat and Gram etc. According to 1991 report maximum area under Jowar crop in Shrigonda tahsil (85.03 percent). Area under sugarcane crop is more in Ahmednagar district (5.04 percent) than the tahsil (1.60 percent) in 1971 report. According to 1971 report minimum area under crop was total fruits and vegetable 0.88 percent in Ahmednagar district and 0.70 percent in Shrigonda Tahsil. In 1991 decade situation is same. According to 1991 report maximum area under Jowar crop (54.22 percent) and minimum area under groundnuts crop (0.99 percent) in Ahmednagar district. In Shrigonda tahsil maximum area under Jowar crop (85.03 percent) and minimum area under Groundnuts (1.20 percent).

According to 2011 report situation in Shrigonda tahsil Jowar crop (75.41 percent) acquired maximum area and Gram crop is acquired minimum area (1.10 percent). According to 2011 report maximum area under Jowar crop (48.12 percent) and groundnuts are minimum areas (2.00 percent) in Ahmednagar district.

From above data it is observed that the area under Jowar crop is more in Shrignda Tahsil than the Ahmednagar district. According to 1971, 1991 and 2011 socio-economic report. Because in Shrigonda tahsil climate (hot and dry), soil (regur or kali), rainfall is unfavorable which is rain shadow zone as compare to other tahsils of Ahmednagar district. Therefore Jowar crop production is more in Shrigonda tahsil.

It is observed that the area under Jowar crops decreased from 1971 to 2011 census data. Area under Bajara also decreases from 35.06 percent to 29.00 percent in district and it is decreased in tahsil i.e. 8.17 percent to 2.16 percent. Area under sugarcane also increases from 5.04 percent to 8.17 percent within 30 years in district and from 1.60 percent to 5.37 percent in same period for tahsil. Area under fruits and
vegetables are increased in district from 0.88 percent to 3.10 percent (1971) and same for tahsil is 0.70 percent to 5.96 percent (2011). It is concluded that the farmers desire cash crops than traditional crops.

Irrigation has become an important aspect of agriculture. Irrigation has played an important role in transforming the agriculture landscape and life of the rural people in the study region. Major and medium irrigation projects, its canals, and other sources of irrigation played a vital role in transforming the cropping pattern of the area. Irrigation is more important for increases in production per hectors of different crops. In Ahmednagar district and Shrigonda tahsil various sources of irrigation is available i.e. well irrigation, canal and tube-wells are more important sources in district and in Shrigonda tahsil. In respective the surface irrigation practices contribute 29.30 percent were as well irrigation 70.70 percent. Were as in 1980-81 the surface water irrigation practices decline (28.50 percent) and increases the burden on ground water. (71.50 percent). But in 1990-91 enhances the 5 percent in irrigation by surface water availability and reduces the dependency on ground water. Again in 2001 rain water availability decline showing the impact on surface water availability for irrigation and parasite on ground water for agriculture practices. (21.73 percent and 78.25 percent respectively). According to 2011 data it is declining the surface irrigation (20.52 percent) and increasing the well irrigation 79.48 percent respectively.

Irrigated area by surface and well irrigation in Ahmednagar district and Shrigonda tahsil. According to 1971 report total irrigated area was 174209 hectors in Ahmednagar district.Where as on 1981, 1991, 2001 and 2011 it was 287289, 31178, 382807 and 572487 hectors respectively. The increase in the irrigation area was reported. The surface water irrigation has shown the contribution of 29.30 percent, 28.50 percent, 33.86 percent, 21.73 percent and 20.52 percent respectively. The pattern almost uneven i.e. increase and decrease which was directly proportional with rainwater availability in the region. In the study area (Shrigonda tahsil). Surface water irrigation contributed between 25.72 percent to 48.19 percent. Mainly the irrigation practices were on tube well and dug well i.e. up to 74.28 percent. This indicates the meteorological condition that monsoon availability and the pattern can influence the surface water and ground water recharging. As the study area is rain shadow area mostly depends on retreating monsoon. With mostly having uneven pattern.
Area irrigated under different crops in different years is shown. In Ahmednagar district, the northern area having surface irrigation where as southern area of district mostly depends on ground water irrigation practices. The irrigation water availability reflects the land use and cropping pattern in the district. In study area the short term cropping pattern like wheat, jowar bajara were dominating compare to district scenario. The land under the wheat cultivation were increased by 14.75 percent to the 23.12 percent in study area i.e. shrigionda tahsil it was 10.66 percent to 23.48 percent , according to 1971 to 2011. In Jowar and Bajara at district level land under cultivation declines from 33.79 percent to 22.69 percent and 6.74 percent to 6.20 percent, where as the cash crop like sugarcane, cultivation were dominating in the district. Where as in comparison with the study area in shrigionda tahsil the jowar and bajara cultivation were declined from 55.67 percent to 42.22 percent and 8.60 percent to 3.42 percent respectively. Surprisingly cash crop like sugarcane cultivation increased from 11.82 percent to 15.23 percent. The cash crop cultivation practices were increased due to irrigation project (kukadi canal project) available in study area attracting the farmers from indigenes to cash crop. This indicates the surface water availability impacting on land use pattern and agricultural economy. As per same condition to total fruits and vegetable is also increasing from 5.23 percent to 13.42 percent at district leelvel and 5.22 percent to 11.82 percent at tahsil level. It is indicator of change in the attitude of farmer as traditional to modern techniques use in agriculture.

In three decades Jowar crop is highest in tahsil than other crops because area under in rain shadow zone and most of crops depend on rainwater. But day by day sugar cane, fruits and vegetables, wheat these cash crops occupy more irrigated area. In this day source of irrigation facilities are increasing that’s way the increasing for production in cash crops. Because cash crops need more water supply. Due to canal irrigation facilities in tahsil also increase the area under various cash crops. Therefore 1971 to 2011 report area under sugarcane, fruits & vegetable, crops are increases significantly.

In the present study the data reveals the landuse pattern and the irrigation practices in the Shrigonda tahsil, Ahmednagar. The data from 1971 to 2011 of the irrigation practices reflects the land use pattern of a district. The southern part of the district mostly influenced by irrigation facilities (Mula dam and Bhandardara dam)
the minor irrigation projects also enhances the landuse pattern in comparison with the data, the district scenario mostly dominated by cash crops in northern part. Whereas the study area which came under rain shadow area i.e. list availability of monsoon. Which influences the irrigation facilities the present study area in not having any major irrigation project the partially depend on Kukadi and Ghod canal irrigation. The agriculture pattern reflects mostly the tube well and dug well as a prime source for irrigation. The cropping pattern mostly reflects the short term crops like jawar, bajara, wheat, groundnuts and gram. But in 1971 to 2011 data reflects the cash crop existence in agriculture pattern i.e. the availability of irrigation facilities increased the farmer’s interests towards such type of crop.

There is close relationship with per capita use of electricity supply and human resource development. The progress of rural electrification in Shrigonda talas. It is increased to 68.27 percent according to 1981 census data. According to 1991 to 2011 census all of the villages in talash connect with electricity recording 100 percent electrification. This is satisfactory development in electricity distribution. Electricity is an important part of human life, without electricity people cannot develop in agriculture and other activity.

Electric power is utilized for different purpose such as; domestic, industrial and agriculture. In Ahmednagar district maximum electric power is used in agriculture according to 1971 (52 percent) and 2011 (48.70 percent). The use of electricity in agriculture change from 1971 to 2011 records -6.34 percent in Ahmednagar district. According to 1971 agriculture use of electric power is 68.20 percent in Shrigonda tahsil and it increased in to 69.50 percent according to 2011 report. In Shrigonda tahsil change from 1971 to 2011 has shown 1.90 percent for agriculture use of electric power.

Domestic use of electric power is increased in Ahmednagar district and Shrigonda tahsil. According to 1971 domestic use of electricity was 7.20 percent in Ahmednagar district and 4.20 percent in Shrigonda tahsil. It is increased up to 8.60 percent in Ahmednagar district and 5.80 percent in Shrigonda tashil according to 2011. The change in domestic use of electricity is positive in district (19.44 percent) and in Shrigonda tashil (38.09 percent).

According to 1971 commercial use of electricity is 4.10 percent in Ahmednagar district and 1.40 percent in Shrigonda tahsil. According to 2011
commercial use of electricity is increased up to 5.80 percent in Ahmednagar district and 2.10 percent in Shrigonda tahsil. In this two decade change is positive in Ahmednagar district and Shrigonda tahsil (41.46 and 50.00 percent respectively).

The use of electric power in industry was 15.20 percent in Ahmednagar district and 8.30 percent in Shrigonda tahsil according to 1971. And it increases in Ahmednagar district (19.30 percent) and Shrigonda tashil (10.40 percent) according to 2011. From 1971 to 2011 the change records positive in district (26.97 percent) and in Shrigonda tashil (25.30 percent).

Public lighting and for other purpose use of electric power is also increased in Ahmednagar district and Shrigonda tahsil. It changes on positive i.e. 84.61 and 82.72 percent respectively.

Irrigation means artificial water supply for crops or agriculture. For Wells irrigation used diesel pump sets and electric pump sets. The irrigation wells use diesel pump sets and electric pump sets in Ahmednagar district and Shrigonda tahsil. According to 1961 census 98.80 percent wells used diesel pump sets whereas only 1.20 percent wells used electric pump sets in Ahmednagar district. In Shrigonda tahsil 99.03 percent wells used diesel pump sets and 0.97 percent use electric pump sets.

According to 1971 census 55.20 percent wells used diesel pump sets and 44.80 percent wells used electric pump sets in Ahmednagar district. In same period Shrigonda tahsil recorded 51 percent wells used diesel pump sets and 49 percent wells used electric pump set whereas 65.20 percent wells was used electric pump sets in Ahmednagar district. Shrigonda tahsil followed the same situation about diesel and electric pump sets 39.07 percent wells in use with diesel pump sets whereas 60.93 percent wells in use with electric pump sets for irrigation in Shrigonda tahsil.

According to 1991 report 15.50 percent irrigated wells used diesel pump sets whereas 84.50 percent irrigated wells used electric pump sets in Ahmednagar district. The same situation was recorded in Shrigonda tahsil. 21.20 percent-irrigated wells were used diesel pump sets and 78.80 percent wells were used electric pump sets in Shrigonda tahsil. According to data it is increase in electric pump sets as compare to diesel pumps in Ahmednagar district and Shrigonda tahsil. (2001 and 2011).
The study of socio-economic aspect of livestock is also important. Livestock is important for agriculture work and domestic foods for human beings. It is product organic fertilizers for agriculture. According to 1971 report 49.57 percent cattles were recorded in Ahmednagar district and 51.36 percent recorded in Shrigonda tahsil. According to 2011 report cattle percentage is increase in Ahmednagar district and Shrigonda, which remains 68.18 percent and 69.70 percent respectively.

According to 1971 data buffalo’s percentage recorded 4.56 percent for district and 3.17 percent for Shrigonda tahsil. In 2011 report the percentage of district is 3.30 percent it is decreasesd and 4.41 percent in Shrigonda tahsil it is increased. Due to development in tahsil of dairy farming is subsidiary for agriculture in rural areas and it is important for increase the livestock.

Sheep’s recorded 17.05 percent in Ahmednagar district and 16.88 percent in Shrigonda tahsil according to 1971 report. According to 2011 report sheeps recorded 7.64 percent for Ahmednagar district and 6.15 percent for Shrigonda tahsil. Compare to last decade the percentage of sheep’s in Ahmednagar district was decresing.

Goats recorded 27.56 percent in Ahmednagar district and 27.88 percent in Shrigonda tahsil according to 1971 report. The percentage was decreased to 20.12 percent for Ahmednagar district and 19.20 percent for Shrigonda tahsil according to 2011 report.

Other livestock data shows increase from 1970 to 2011 data from tahsil and district. From above data it is concluded that the role of livestock is important for agriculture and domestic use in Ahmednagar district and Shrigonda tahsil.

Sixth chapter include human resource investments and rural development in study area with the help of case study of fifteen sample villages. This chapter discuss about the analytical study of sample villages. It includes the problems and development of sample villages. The basis of study is random sampling method. 15 villages are selected for study. Total number of households in 15 villages recorded 14863. Considering to total number of households selection of village is based on random sampling method considering size of households, total population, relief and distance from tahsil place. On the basis of 10 percent random sample households it is recorded 1479 for analytical study of various aspect of human development and socio-
economic approach. Shrigonda tashil recorded 114 villages according to 2011 census. The 10 percent sample villages are selected from these. It is to study six groups of all aspect which is selected each group of 02 village for the village survey. Village Belwandi Bk. is largest village recorded 2320 household and 11599 population according to 2011 census. Second largest village is Limpangaon in first group of tashil recorded 2225 household and population 9707. The smaller village takes into account is Vadali in Kolgaon group where total number of household recorded 447 and population is 2178. Another smaller village is Kautha in Limpangaon group with 494 household and 2643 population according to 2011 census.

There are various social amenities influencing human development on rural life. The study focused on whether the role of social amenities influence a progress, the proper distribution. The study of nature requires primary data. The primary data are collected with the help of questionnaires. This study is broadly based on sample survey, the area of which has been combined to Shrigonda tashil. The information is collected with the help of a schedule of questionnaires. There is fifteen sample villages in six groups namely Limpangaon, Ajnuj, Kautha, Belwandi Bk., Chimbhale, Vangdari, Visapur, Pimpari Kolandar, Chikhali, Pargaon sudrik, Vadali, Mandavgan, Bhangaon, Adhalgaon and Pedgaon in Srigonda tashil.

From above selected 15 sample villages 1479 households are selected based on 10 percent random sampling method. Total numbers of sample villages are 15. Population growth, Sex ratio, Literacy, occupation structure, Social amenities, Age composition, Age sex Structure, General land use, Agricultural land use, Source of irrigation in Agriculture, Drinking water facility, use of electricity, fuel used in kitchen, use of agricultural equipments and vehicle, Recreation and communication units, Settlement structure, Wall, Roof and Flooring material used by households, bathroom and Latrine facilities are taken in to account and analysed the data with various statistical method, maps, bar graphs, line graphs, pie diagrams and other suitable cartographic techniques.

**Utility of the Research:**

Human resource and socio economic study is the applied for different way in the society of the study area. It is the result of interaction between various social and economic factors. Village planning is use for integrated development of rural area.
We are study to various aspects associated with socio-economic conditions of the study area and find the level of development of different village groups. It is help to planning and uplift such region which is comparatively underdeveloped of the study area. With the help of following conclusion and suggestions. Mandavgan, Adhalgaon and some of Kolgaon group of villages implemented irrigation project. It is important for development of these village groups. The planner and policy makers take in to consideration, the ideal plan on priority basis to eliminate the imbalance to make the study region. In this group of villages to start the small scale industries, for overall development of the study area.

Limitations of the Study:

Any study has suffers by some of inadequacies and limitations. These are as follows: There is unavailability of village wise data of age-sex, age at marriage, life expectancy, adult literacy, combined gross enrollment, infant mortality, GDP, total number of birth and death in year etc. These data not obtained from the secondary source of data. Data in respect of few variables has been obtained from primary source like interviews, questionnaires and direct observations. The data of Social amenities in 2011 census is not available. So this is obtained by projecting 2001 census, district socio-economic survey abstract and Tahsil Panchyat Samity office (B.D.O.), Shrigonda.

Conclusion:

The detailed analysis of study area has enabled the following conclusions:

1. Population density is higher in irrigated and service centre area.
2. Area under forest was decreased in the study area it was explained by the marginal resource density.
3. Sex ratio has continuous decline in the study area.
4. As per village survey data population of the young age group was higher in the study area.
5. Literacy in the study area is continuously increasing due to need of society and standard of living.
6. Male literacy is comparatively higher than the female literacy.
7. Maximum population is engaged in the primary occupation in the study area.
8. The birth rate is the negative indicator of the economic development of a particular area. Generally, the birth rate is found less in the city area and more in the rural areas.

9. Death rate provides one of the basis for computing the rate of natural increase in population. Death rate is the indicator of the economic development of particular region. The high death rate shows lower level of the human development. In the hilly and rural area of the tahsil the death rate is observed more because deficiency in the availability of medical facilities.

10. The information in Infant Mortality Rate has declined from 1971 to 2011. It is increase in age at marriage, improvement in medical facilities and female literacy.

11. The life expectancy for the year 1991, 2001 and 2011 has been given increasing trend; it is because of progress in economic development improvement medical facilities etc.

12. The proportion of no. of families BPL has also been reduced. This scenario shows that the BPL families are decreasing. This is good indicator for the human resource development.

13. To provide the medical facilities in rural areas. Strict restrictions from hospitals performing abortions and sex determination tests.

14. Physical features, rainfall and soils conditions are treated as basis for irrigation development.

15. Groundwater is more dependable than surface water in the region; therefore, its potentiality has to be increased by different measures like contour bunding, percolation tanks and afforestation. This may bring additional land under irrigation.

16. Electric motor pumps are significant water lifting devices; therefore, cheap and assured power supply should be made available to the farmers. Its proper supply is difficult and electric charges have increased.

17. The efforts are to be taken to popularize the use of mechanical and biochemical inputs among the farmers in the region.

18. Growth of population has affected the productive land surrounding the settlement area.

19. Almost all villages have experienced considerable growth of population due to decrease in death rate and also decrease in infant mortality. Birth rate has not
decreased to a considerable extent. Medical facilities have enabled the longevity of life, reduced infant mortality, and eradication of epidemics.

20. Occupational structure has also considerably changed due to the impact of urbanization, education and modernization. Now people are diverting towards secondary and tertiary occupations.

21. Land use has considerably changed. People have tried to make use of land in different kind of use.

22. Cultivators are using chemical fertilizers, developing irrigation facilities by maximize and multiple cropping.

23. Impact of scientific methods production. Farmers have not adopted scientific methods of cultivation, modern agricultural equipments but they have paid much attention towards new varieties of crops, because of high yielding and less time consuming consideration. As a result almost all old verities of crops have been replaced by newly developed varieties of crops.

24. The study of sugarcane cultivation has the increasing in study area. Because most of the area is irrigated and four sugar factories are present in study area. But the other hand over irrigation and use of chemical fertilizers land is sailiend and unfertile.

Suggestions:

1. The economy of the study region is agriculture base. 70 percent population of study region engaged in primary activities especially in agriculture. But development of agriculture is not uniform in all parts of the study area.

2. Most of population depending on agriculture. But the agricultural development is not satisfied. Therefore to minimize the disparity in the development of the agriculture there is need to reduce the pressure of population depending on agriculture,

3. The study area needs develop in road transportation, particularly in Mandavgan, Kolgaon and Adhalgaon group of villages.

4. The distribution of social amenities is uneven like as education, drinking water, medical, transportation etc. It is necessary to these amenities to provide or develop in Mandavgan and Adhalgaon group of villages.

5. The provide the modern medical facilities by taking the percentage of villages and population, served by medical facilities.
6. To arrange villagewise plan for family welfare centre.

7. To establish the technical institute, various degree courses for the development of higher education.

8. A study of spatial distribution of facilities is less in north east and east part of the tahsil. This is due to uneven distribution of natural and cultural resources. Therefore, different action programmes should be implemented in study area to develop the backward areas particularly in north-east and eastern parts of the study region.

9. The study area is an industrially backward as compared to northern part of the district. The region is poorly developed due to lack of planning. The existing agro base resources should be develop of dairy sector and agro based industries.

10. The planners, administrators, politicians of the study region should work together as an integrated structure to plan and implement the developing programmes and policies.

11. Shrigonda tahsil belongs to drought prone area; hence there is scarcity of water. North east and eastern part of the tahsil (Mandavgan, Adhalgaon and Kolgaon group of villages) is more scarcity of water as compare to other study region.

12. The less canal irrigation in Mandavgan, Kolgaon and Adhalgaon group of villages. Therefore watershed development programme or canal irrigation programme is essential for these dry villages for agriculture and economic development.

13. Development programme of agriculture should carryout effectively to increase per hectar agriculture production. Therefore to increase agriculture income and work in rural area. This is possible; there will be equality of area against population.

14. If the agriculture based industries is increased there are many opportunities are available in employment.

15. If the fallow land develop through government agencies and NGOs in study area to increase marginal resources density.

16. The survey of government policies and village survey sample data say the growth of population is rapidly increased. To control the growth of population
and participation in women in higher education to motivate the people awareness.

17. There is need to increase the rate of literacy and quality of education in the rural areas and to minimize dropout rate of girls from the secondary education. Different schemes need to be implemented to motivate the proportion of female in higher education in rural area.

18. The need of sustainable agriculture development is essential to adopt the modern technology, capital investment on large scale, research and development to face globalization and global competition.

19. Different kinds of programme of agriculture development should carryout effectively to increase the production and the income.

20. Different sources of employment should be generated in rural area to stop migration flow of rural population.