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## A study on Human resource geography of Haryana

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### **ABSTRACT**

*When developing the economy of any nation, it is imperative that the nation's human resources be given top consideration. The expansion of a region's economy is contingent not only on the increase in that region's natural resources but also on the rise in that region's human population. This is due to the fact that man is at his best when he is highly educated, in good physical shape, and has strong social connections. According to the research of Gadekar Deepak J. (2015), the level of domestic and international tourism that a nation experiences is directly proportional to the level of economic success that the nation experiences. This is due to the fact that tourists are a nation's resources. The population density, literacy rate, occupational mix, gender ratio, and other factors, such as amenities, are among the most important features of human resource development. Other important criteria include the gender ratio. The primary objective of this project is to conduct investigation on the methods that are applied in the region of Ahmednagar for the purpose of cultivating human resources. Secondary data, which were collected in 2011 for the district of Ahmednagra census, are the primary source of information for this study. These data can be organised into four main divisions, including demographic factors, occupational patterns, the agricultural and amenities sectors, and other related fields. A wide range of aspects have been considered in order to ascertain the amount of human development that can be attributed to each of these four categories of people.*

**KEYWORDS:** ranking, Amenities, Human Resources, Demographic Characteristics, Occupation Pattern, and Agricultural Resources.

### **INTRODUCTION**

Human resources are one of the most important components of a country's overall supply of resources since they are so crucial to the study of population geography, which places a heavy emphasis on these resources. The development of a region's human resources is one of the most important factors in that region's overall progress. One of the issues that India has is its regional imbalance, which may be partially attributable to the region's low level of human resource development and its economic backwardness. This imbalance is one of India's challenges. To facilitate the expansion of the region, it is necessary to make efficient use of the improvements in the availability of human resources. The expansion of the region has an effect not only on the natural resources and the human resources that are located in the region, but also on the human resources that are located in the region. (Gadekar Deepak J 2017) The undertaking of development is a continuous process that calls for the redistribution and reorientation of the complete economic and social structure. The expansion of each location is dependent on the resources that may be found there; nevertheless, human resources receive a disproportionate amount of emphasis relative to other types of resources. Literacy rates, population densities, gender ratios, rates of population growth, occupational positions, agricultural facilities, and human amenities are some of the factors that influence the development of human resources, as stated by Mali (1999) and Gadekar Deepak J. (2015). (Gadekar Deepak.J., 2016; Gulave S.D. 2020) Given that forests are essential sources of various natural resources, the most major factor contributing to the steady loss of forest cover is the growth of the human population, which is also contributing to the rise of industrialization. (Gadekar Deepak J 2015). Nevertheless,

despite the fact that they are a resource, human beings are susceptible to the massive environmental transformations that are currently taking place. (Gadekar Deepak J 2020; Kudnar N.S 2015) Human resources and human activities are the two primary factors that contribute significantly to the contamination of water. (Gadekar Deepak J 2019) Both the availability of women as resources and their active participation in any endeavour are essential components. Women's participation is especially important. Because of the fact that the amount of progress made by the family is directly proportional to the amount of participation other people provide. (Gadekar Deepak J 2020) Water contamination and the depletion of human resources are two major contributors to the problem. The great advances that humans have made in their technological capability have come at the expense of their intellectual capacity, which has directly led to an increase in the levels of pollution that can be found in every region of the planet. (Bisen, D.K. and Kudnar, N.S. 2013). The accessibility of water is one of the most important determinants of economic expansion in any given place. According to research conducted by Bisen, D.K., and Kudnar, N.S. (2019), climate was determined to be one of the factors that affects economic development.

### **READING AREA**

The study's main subject will be... The research will be conducted in the Ahmednagar neighbourhood. It spans 73 degrees 40 minutes to 75 degrees 43 minutes east longitude and 18 degrees 20 minutes to 19 minutes and 59 seconds north latitude (Map.1) It can be found in the upper Godavari basin to some extent. With a length of 200 kilometres and a breadth of 210 kilometres, the district has a relatively small footprint. The Sahyadri mountain ranges, which include Kalsubai, Adula, Baleshwar, and Harishchandragad, are the first unique physical region in this study region. The second is the plateau, and the third is the lowlands region. The two most significant rivers in this region are the Godavari River and the Bhima River. The main tributaries are the Paravara, Mula, Sina, Dhora, and Kukdi rivers. The quantity of water in rivers is significantly influenced by the amount of rain that falls in the Western Ghats. The Ahmednagar district has a land area of 17,048 square kilometres. There are 14 tahsils in all, and they are used for administrative functions. 39 degrees Celsius is the average daily high temperature, while 11.7 degrees Celsius is the average daily low temperature. 578.8 millimetres of rain fall on average each year (22.79 inches). A total of 71.10 percent of the region under inquiry is under agriculture, of which 32.40 percent is irrigated and 67.60 percent is either rain fed or in a rain shadow. At the time of the 2011 census, it had a population of 45,43,083, with 2,348,802 males and 2,194,281 females, respectively. For every square kilometre of land that was occupied, there were 266 individuals. Since it makes up the majority of the local economy, agriculture is important. The agricultural production in the area under examination is significantly impacted by changes in the climate, soil, drainage, and irrigation systems. Depending on whether a place is irrigated or rain fed, the agricultural pattern differs (Map no. 01).

### **OBJECTIVE:**

1. To analyse the level of development in Ahmednagar district at the Tehsil level using 2011 census data.
2. To evaluate the infrastructure facilities in the study area..

### **METHODOLOGY**

The information that has been gathered on the infrastructure of the nation originates from the Census of India in 2011, as well as from a number of other official publications and data from institutions. The current research investigates a variety of subjects, including

agricultural position, human resources, demography, amenities, and occupational position, among others. Z scoring systems were utilised, and 19 demographic, amenity, agricultural, and professional position variables were taken into consideration for determining the level of human resources development (Gadekar Deepak J 2018). (Gadekar Deepak J 2016) Akole thail's long-term human resources development made use of agricultural and demographic data obtained from the census between the years 1991 and 2011, and it did so in accordance with and on the basis of those years. The level of human growth was governed by a variety of circumstances in their interaction with one another. They are reorganised into the appropriate sequence, and their level is taken into consideration afterward. After that, they are divided into three various levels of development. There are three main stages that can be distinguished from one another throughout the process of development. The first one has the society with the lowest level of development, the second one has a society with a moderate level of development, and the third one has the society with the highest level of development. In the same way that a bar graph may be used for cartographic approaches, GIS mapping methods can be used to map out various stages of growth. According to Gadekar Deepak Janardhan's 2016 research, the Kendall co-efficient index is being applied for the purpose of fostering agricultural expansion in the Ahmednagar District. He is using ten different criteria. In addition to this, Kendall was the one who originally devised the index. Based on the information about the 13 different criteria that are provided below, the Kendall's co-efficient index method is applied to the data in order to calculate the co-efficient index for each tahsil that is included in the study region. The coefficient index has a link to development that is inverse to that of development itself; this means that a lower index implies higher development, whereas an index with a larger value suggests less development. The formula that Kendall established is utilised so that the value of the Coefficient index can be calculated.  $\sum N$  refers to an unknown quantity of things in this scenario. X1 represents the gender distribution, X2 the literacy rate, X3 the population density, X4 the population growth rate, X5 the primary workers, X6 the home workers, and X7 the other working population. X7 represents the total working population. X8 represents the number of telephones, X9 represents the medical facilities, X10 represents the education, X11 represents the electrification, X12 represents the banking, and X13 represents the irrigated area.

## RESULT AND ANALYSIS

Sexes on an equal footing: (Gadekar Deepak J 2018) When trying to gain a knowledge of human evolution through demographic research, looking at the distribution of the sexes is one of the most important things to consider. The ratio of females to men in a given population is what demographers mean when they talk about the "sex ratio." One of the most important indicators of the social and economic climate of a region is the ratio of males to females in the population. In addition, it is an essential technique for doing analysis on a regional scale. The sex structure of a population is the most fundamental aspect of humankind, when compared to the other demographic aspects of a population.

The literacy rates of: (Gadekar Deepak J 2018) One of the most important indicators of how well human resources are being developed is the literacy rate of a population. Literacy is an essential tool for general combination, as well as for a nation's social and economic progress. The literacy rate is one of the most important indicators of the quality of society in a certain region and can vary greatly from place to place. It was discovered that when the rate of literacy change was slow, economic growth also proceeded at a slower pace as a direct result of this correlation. On the other side, when there was a quick increase in the rate of literacy, there was a faster speed of economic development. Literacy rates in any given location were nearly totally controlled by a confluence of historical, social, and economic factors. [Case in point:]

The density of the population is as follows: (Bisen, Jena DK, et al., 2010; Gadekar Deepak J 2018) The population density of a region may be calculated by taking the entire population of the region and dividing it by the total land area of the region. This provides a measurement of the resources available, including both land and people. It is anticipated of him that he would comprehend usage in addition to optimum, both of which take into account the resources that are at his disposal. When determining the dispersion and concentration of the population, one measurement instrument that was utilised was the population density. Other metrics were also utilised. The ratio of land to people was used in the calculation of the population density. When calculating population density, the ratio of total population to the quantity of land that was available was utilised as the primary indicator.

The number of people being born each year: (Gadekar Deepak J 2018) The rate of population increase, the accessibility of sanitary facilities, and the distribution of goods are all important factors. The rate at which the population is growing. In addition to having a high degree of educational attainment, Low also has a strong financial standing within the family. The growth of the population can be blamed for alterations in both space and time that take place over the course of a single year or over a period of years. The growth of a population is the result of a complex web of interrelated processes, including births, deaths, and migration. It is knowledgeable, and the region's socioeconomic development is threatened by both the significant positive increase in population as well as the significant negative growth in population. Large positive population growths have been a contributing factor in the development of problems that are linked with overpopulation, whereas excessive negative population growths have made it abundantly evident that there is a limited amount of resources.

Main workers: (Gadekar Deepak J 2018) (Gadekar Deepak J 2018)

Main workers are deemed to be those employees who had worked during the reference period for a cumulative total of at least six months. Workers who had been employed during the most of the time period in question are understood to be "main workers." Cultivators, labourers, those who are engaged in domestic industry, and other workers make up the primary workforce. These primary workers can be split down into these four categories. People who are retired, people who are students or scholars, and other non-workers who are not included and classified in the main worker categories are regarded to be non-workers. Non-workers are not considered to be workers because they are not included in the main worker categories. People who are mostly occupied with domestic responsibilities are considered to be non-workers. Agriculture is the most important activity in rural areas, according to research conducted by Khemnar S. B. and colleagues (2014). (P.H. Mhaske 2011) Both the way land is used and how economic activity is conducted are susceptible to shifts brought on by population expansion.

Workers of Primary Importance in the Household: (Gadekar Deepak J 2018) The principal Household occupations do not have deep roots in the region where they are practised when they are carried out. This category of vocations encompassed not just the household industry but also the manufacturing industry, the processing industry, the maintenance industry, and the repair business. These vocations are all considered to be examples of what are known as secondary activities. a favourable position obtained by cultivating human resources through diverse economic operations in order to achieve a favourable position.

The following are other significant components of the labour force: (Gadekar Deepak J 2018) According to the census that was carried out during that year, the term "other principal workers" refers to individuals who are engaged in economic activities that entail commerce and transportation. The other significant worker provided valuable insight into



the evolution of the economy and the availability of human resources. 8. Please find the following telephone number below: (Gadekar Deepak J 2018), The development of human resources is given the least priority by the communications department, which has the least significant position. The post offices and post and telegram offices in villages that were fairly similar to one another were visited in order to investigate the communication in the region that was the subject of the study. Let's say that the laws of distance cause a breakdown in the distance. Beginning from that point, such communication facilities centre has been evaluated as a factor that affects human resources and economic development. This has had a negative influence.

Medical facilities: (Gadekar Deepak J 2018) The accessibility of medical care is among the most significant contributors to the overall socioeconomic development of any given location. In order to cultivate human resources, having access to adequate medical facilities is an absolute requirement. For the purpose of this investigation, the accessibility of medical facilities in the research region was categorised into five separate groups (Primary Health Centre, Primary Health Sub Centre, Maternity and Child Welfare Centre, Hospital Alternative Medicine, Dispensary).

Education: (DK Bisen, NS Kudnar 2013; Gadekar Deepak J 2015) (DK Bisen, NS Kudnar 2013; Gadekar Deepak J 2015) (DK Bisen, NS Kudnar 2013; Gadekar Deepak J 2015) As a result of the close relationship that exists between human characteristics and level of education, education is an essential component in the process of developing human resources. As a direct consequence of this, educational institutions in the region under scrutiny have been separated into the five distinct sub-sectors listed below: one of a necessary full primary sector, secondary high school, higher secondary junior college, any kind of senior college, and post graduate colleges. The total point value increased at a rate that was proportional to the ascending difficulty of the educational facilities.

Electrification: (Dabhadker.K.2004) (Dabhadker.K.2004) (Dabhadker.K.2004) Without electricity, it is physically difficult to participate in any form of work, much less work that contributes to economic growth; as a result, economic growth is unable to take place. In addition to its application in the home sector, electricity is used extensively in the commercial, industrial, and agricultural sectors as well. This is because each of these sectors relies heavily on electricity as a fundamental factor in order to maintain the development phase. Electrification is significantly linked to general human development as well as the enhancement of the quality of the environment in which people live. This relationship exists independently of the growth of the economy, but it does contribute to it. (Gadekar Deepak J 2018) Because electricity may be put to use in a wide variety of settings, the degree to which rural areas are electrified and the amount of electricity they consume both have a significant role in the growth process and the socioeconomic climate of those regions. The Municipal Electric Supplies Board (MESB) was the principal source of electrical supply; hence, the entire hamlet was wired for electricity. (Kudnar N.S2 018) The availability of power is essential for the expansion of agricultural production.

Banking: (Gadekar Deepak J 2018) (Gadekar Deepak J 2018) (Gadekar Deepak J 2018) The availability of banking services has a substantial bearing on various economic success indicators. The practise of economic coeducation is widespread in rural areas, and a wide variety of man banks can be found there. This is one of the metrics that is used to determine how successfully the development of human resources is proceeding.

Land that is supplied with irrigation (Sonawane V. R 2020) The depletion of human resources has been the factor that has had the most significant impact on the deterioration of the soil ecosystem. This is because of the widespread use of chemical and fertiliser products in agricultural areas, which have caused considerable harm. Irrigation is the single most important factor that has contributed to the expansion of agricultural practises over

the years. According to Anil A. Landge, the operation of irrigation facilities is reliant on the type and amount of precipitation that falls (2020). (Gadekar Deepak J., 2016) As a result of this, the availability of human resources is one of the most significant factors to consider while discussing the development of agriculture. The level of agricultural production is based not only on environmental factors but also on human factors and the architecture of irrigation systems.

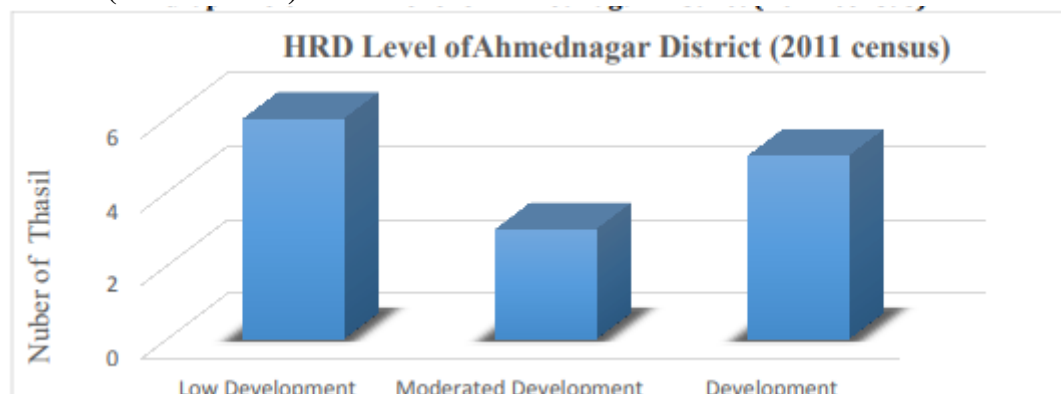
(Kudnar N.S. 2015) The presence of water is necessary for development, and the presence of water is necessary for development. The effective administration of agricultural resources is a necessary component of forward movement in the agricultural sector. (Kudnar N.S. 2017) It is a plausible theory to postulate that the proportion of irrigated land in a region has a direct influence on the level of economic development that occurs concurrently with the expansion of agricultural production. (Kudnar N.S. 2018) The development of agriculture had an effect on the growth of human resources, which were in turn influenced by that development. (Kudnar N.S. 2019) a bigger proportion of the total area of land that is irrigated, a greater proportion of the total area of land that is used for agricultural purposes, and a growth in the amount of development in the agricultural sector. Both the Tupe B.K. 2020 and the Tupe B.K. 2014 Agriculture will have an impact on irrigation in this region, which already has a substantial amount of agricultural growth and a high degree of irrigation. (Rajasekhar, M et.al 2020) Irrigation is the reason for the changing cropping pattern (Mhaske P.H 2014), and water is the most important component of agricultural progress (Kudnar, N.S. & Rajasekhar, M 2020).

The map that came before this one shows that the proportion of males to females is highest in Parner thasil and lowest in Karjat thasil. The results of the investigation support these conclusions, therefore this makes sense. Additionally, the thasil of Jamkhed has the lowest literacy percentage, while the thasil of Akole has the greatest literacy rate. Karjat thailand has one of the highest rates of literacy in all of Bhutan. Akole, Jamkhed, Karjat, Pathardi, Shevgaon, and Shrigonda are all examples of taluks that have a poor level of human development as a result of a low literacy rate and sex ratio. Shrigonda is the only taluk that does not have a low level of human development. Literacy is one of the most essential factors that affects the growth of human resources and is one of the most crucial components. Literacy, as a result, provides the economic standing of a family where there is more literacy, and the contrary is true in a home that is in a poor financial position but does not have a good literacy status. As a result of the progressive nature of the thirteen factors that contribute to their human resource development, a total of five thasils, namely Nagar, Rahata, Rahuri, Sangamner, and Shrirampur, have shown evidence of progressive human resource development. The low and moderate thasil for HRD had a negative influence on the irrigation facilities. The agriculture industry is suffering in places that have a large concentration of irrigation facilities because of the negative effects that irrigation is having. There is a rise in agricultural development taking place in regions that are experiencing both an increase in the availability of irrigation and a decrease in the availability of irrigation. There is competition for the few available jobs because the city is not expanding. This makes finding work challenging.

In addition, the current state of the economy can be observed to have an effect on the literacy rate as well as the gender ratio by looking at map no. 01. This can be seen in further detail in the map. There are a total of 14 thalis in the Ahmednagar district that are associated with human resources development; however, only six of those thalis are regarded as having Low Development. Akola, Jamshed, Karat, Pahari, Shevaun, and Trigona are the names of the thalis that are considered to have Low Development. In addition to those three thalis, there are a further three thalis for individuals with a development level of moderate intensity. These are the thalis known as Koregaon, Nevada,

and Parner. In conclusion, there are five thalis associated with the growth of HRD. The thalis in question are called Nagar, Rahat, Rahuria, Sangamner, and Srirampur. Please refer to the detail Graph and Table no. 01 for any additional information.

**Graph No 01: The Human Resource Development Capability of the Ahmednagar District (census: 2011)**



**Table no 01: The Current HRD Level in the District of Ahmednagar (according to the 2011 census)**

Level of HRD	Number of Thasil	Name of Thasil
Low Development	6	Akole, Jamkhed, Karjat, Pahari, Shevgaon, Shrigonda
Moderated Development	3	Kopargaon, NE vasa, Parner
Development	5	Nagar, Rahata, Rahuri, Sangamner, Shrirampur

## CONCLUSION

Many different ecological, economic, and social influences have had a role in shaping the development of human resources. In addition, geography has an effect not only on the population density but also on the different sorts of employment and patterns of the distribution of amenities. In addition to the deterioration of human resource qualities, the impact that physical variables have had on the district of Ahmednagar is discussed below. The area of the district known as the Akole Thasil is located in the western part of the district, and it is the area where the landscape has been modified to a major degree. According to Bisen and Kudnar (2013), a region that is prone to drought had an effect on the overall rate of economic growth. (Bisen D.K and Kudnar N.S. 2013) The population is concentrated in a small area despite the fact that the terrain is mountainous, however there are few amenities available. According to Bisen D.K. and Kunnar N.S. (2013), the evolution of agricultural practises requires the use of water. The investigation that was carried out in the year 2020 by Anil A. Landge and his colleagues found that the akole

thasil located within the Ahmednagar district receives the most amount of precipitation. The region surrounding Karjat and Jamkhed is the one that sees the least quantity of precipitation overall. The uneven distribution of rainfall has been shown to be a contributing factor in the uneven development that has resulted from the development of human resources. Irrigation and education are two factors that might be considered as potential contributors to the expansion of a territory. Acknowledgments While the author was conducting research at Padmashri Vikhe Patil College of Arts, Science, and Commerce in Pravaranagar, the author would like to express gratitude to the college's Principal and vice-Principal for their tremendous cooperation and the facilities they provided. In addition, the author would like to express gratitude to the Head of Department and to My colleague, as well as to each and every one of the PG students.

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