Chapter - VII
Conclusion, Problems and Suggestions

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Conclusions, Problems and Suggestions

7.1 Introduction:

In chapter second to sixth we are studied different way of rural settlement patterns of Akola district. In this chapter is to take the holistic approach for conclusion and have an appraisal of the transitional phases of the rural settlement in Akola district obtained through various aspects. An attempt is also made to discuss the rural settlement problem. Suitable suggestions are also given for integrated development of rural settlements in Akola district. Like other scholars, geographers look at the rural settlements as agglomeration of man made habit of the earth, dependent mostly on primary occupation, he also observed some commonalities in rural living system of any part of the earth. Obviously, the villages and village living system, both are undergoing changes. Traditionally the villages are viewed as a settlement, where man takes birth, lives and dies. This villages do experience change, but slow, in term of changes in family structure, village council, social patterns, their size and form. It is discernible, that production technology has always been the primary moving force in generating change in agricultural operations or other forms of primary production. But new attractions of batter standard of living for improving the existing level of living, do bring change in village family. e.g. clothing, housing education, use of energy, travel patterns, consumption of various goods. In the India, now the scenario obtains predominance of uneconomic holding, reduction of agricultural population, considerable portion of the non agricultural rural population, living in the precarious condition, dependent on the prosperity of agriculture, other changes are larger political units becoming viable from the improved system of communication, printing
and other technical media of linguistic and visual communication supplementing a reliance on oral communication, on interdependence coming into being between communities, occupations becoming more skilled and specialized, salaried, employment in Industry and elsewhere etc. Rural settlements in India from ancient period show a dominance of social and economic factors in their organization. Social organization, the level of technology, the dominance of the 'Jumindari System', political instability and caste system are the importance factors, which have given a typical character to the India village.

7.2 Conclusions:

1. A District Akola is lies in the west part of Nagpur division of Maharashtra State. The old district lies between 19°15' to 21°16' North latitudes and 76°38' to 77°44' East longitudes. It has total area of 10567 square kilometer.

2. The northern entremets of the district in the foot hills of Satpuda and the Ghat Country. Through which the land river from the Purana Plains to old ghat plateau as well as the isolated broken hill terrain in the entreme. South East in Mangrulpur tahsil are the only region of relatively higher elevation. The washim and Mangrulpur plateau in the Balaghat are at on elevation of 400 to 500 meter slopping gently to the East. The plain on average 50 km wide. It is bounded in the North by the Melghat and in the South by the Ajanta scrap.

3. The purna and the penganga rivers are the two important rivers in the study region. The Katepurna, Shahanur, Morna, Mun, Nand, Man and Uma which are the tributaries of the Purna and The Adan. The Arna and the Pus which are the tributaries of the penganga.

4. The climate of the Akola district is characterized by a hot summer and general dryness throughout the year except during the south-West monsoons.
season. The period from about the middle of November to the end of February constitutes the winter season. The summer season extend from March to June. This is followed by the south West monsoon season, which extend up to the end of September, October and November constitute the post monsoon season.

5. The mean annual rainfall of the study region was 847 mm from 1980 to 2004. It various from tahsil to tahsil. Below 800 mean annual rainfall was recorded in Balapur, Telhara, Akot tahsil 800 mm to 900 mm mean annual rainfall was found in Patur, Risod, Magrulpur, Karanja, Murtijapur and Akola tahsil and Above 900 mm annual rainfall was extended in Barshitakli, Manora, Washim and Malegaon tahsil (Table No. 2.2)

6. In 1980-85 out of total geographical only 6.50% area was under in forest area and it was decrease 6.50% to 5.46% Above 10% geographical area was found under forest in Manor (11.96%) Malegaon (14.17%) and Patur tahsil (17.43%). Where as 4% to 10% area under forest was observed in Barshi tahsil (7.54%) Magrulpir (8.11%) tahsil and Below 4% area under forest was extended in Akola (2.18%), Akot (3.02%), Telhara (1.20%) Murtijapur (1.13%) Karanja (1.87) Washim (2.06%), Risod (2.18%) and Balapur tahsil (0.15%) during the period 2000 to 2005.

7. There is four major project in the Akola district Wan, Adan, Katepurna and Ekbhauraji Projects, Wan is the most large project comparatively other than project. The canal length of this project is 231.18 km and area under irrigation is 22515 Hectares. Adan is second major project The canal length of this project is 65 km and area under irrigation is 12104 Hectares. Third is Katepurna project. This project cannal length is 115 km and area under irrigation is 1187 ha. Fourth major project is Ekbhurji. This project is completed in 1964 and at that time construction cost was Rs. 49.37 lacks. Total area under this project is 2729 ha. and length of canal is 54 km.
8. There are nine medium irrigation projects in Akola district. There are Giroli, Sonal, Uma, Morna, Nirguna, Koradi, Mass, Man and Motowana. These medium project covers cultivable command area is 28436 hectar in the district.

9. The trend of general population is from 4.76% to 21.18% during 1951 to 1981. Again it was increased up to 26.24% in 1971. Rural population growth rate increased to 22.28% to 39.34% from 1951 to 1991 again growth rate of population decreased up to 21.71% during the decade 1981 to 1991 in Akola district.

10. The crude density of population increased in every tahsil in Akola district. Below 200 persons per square km were occurred in Barshitakli, Patur, Manora, Magrulpir, Murtijapur, Karanja, Risod and Malegaon tahsil, where as 200 to 300 persons per sq. km were observed in Akola, Telhara, Washim and Balapur tahsil and Above 300 crude density per Sq. km. was found in Akola tahsil during the year 1997.

11. The highest literacy percentage (56.65 %) was found in Akola tahsil while the lowest literacy (34.85 %) was found in Manora tahsil during 1982. Below 60 % literacy was observed in Manora (54.75 %) Washim (57.95 %), Risod (55.99 %) Malegaon (56.16 %) tahsil, where as 60 % to 70 % literacy was noticed in Akot, Barshitakli, Karanja, Magrulpir, Patur Balapur and Telhara tahsil, and Above 70 % literacy was found in Akola and Murtijapur tahsil during the period 1997.

12. During 1987 cattle was ranking first in Akola, Akot, Telhara, Murtijapur, Karanja, Magrulpir, Washim, Risod, Malegaon, Balapur, Patur, tahsils. Out of total livestock below 40% share was occupied by the cattle in Barshitakli and Manora tahsil while above 40% proportion of cattle was observed in remain all tahsil of the Akola district.
13. Table No. 3.12 reveals that there is 100 km National Highway in the study region, state highway 728 km, major district road 795 km, other district road 642 km and village roads 453 K.M. in 1982.

Where as in 1997 national highway is 100 km state Highway 1101 km, major district road 1178 km other district road 1054 km and village road 4046 km in the study region.

14. Out of the total settlement of the region about 41.5% settlement are small each with population than 1000 per son. About 39.3% of the settlements are medium size each with population between 1000 to 3000 persons and 5.4% are large each with population of more than 3000 to 5000 person. While 13.8% of the settlement are urban places each with population of more than 5000 persons. This clearly shows that suitability of the region in respect of soil fertility water availability and agricultural prosperity influence the distribution of settlement by population size.

15. Total number of settlement in the district about 78.8 % found to be with in 5 km from transport route and about 16.3 % were found to be between 5 to 10 km from a major transport route and about 4.9 % of the settlement lie beyond 10 km from a major transport route so network of transportation particularly in middle and southern part is good and most of the settlements have connected by district road or state highway in the plain but the hilly area in still has to be connected by transportation route.

16. The entire rural population of the study area lives in 1574 villages consisting of 309913 households. The Akola district consists 1009 revenue villages and it is difficult task to conduct survey of the all villages. Therefore fifteen villages were chosen for case study. From three geographical region like plain, plateau and hilly area were five villages selected.
17. The total area of study region plays significantly for choosing the
squaresize. The study area is divided into 21 squares. Thus each square
contains 258 Sq. km area.

18. Rural population density and size of rural settlement are also linked. The
range of variation is from a minimum of 118 and 127 persons per Sq. km. in
patur and Karanja tahsil respectively. To a maximum of 205 persons per Sq.
Km. in telhara tahsil. In the district about 90 percent of the villages have a
population ranging between 0 to 3000. This means comparatively small and
medium sized settlements are very common in the district.

19. Out of the total population nearly 20 percent population lived in small
village (Population less than 500), while about 40 percent people lived in
medium size settlement (501 to 999) and about 40 percent population lived
in large size settlement with more than 100 person each.

20. The district is varied in its spatial character. It has therefore equally
striking variation in spacing of rural settlement. This revealed in range of
variation from a minimum of 212 km in Akot tahsil to maximum 4.30 km in
Patur tahsil for the region as a whole spacing of rural settlement comes to 2.75
km. The spacing between the rural settlement in the district is influenced by
several factors, such as proportion of area under forest, availability of water
intensity of land use and accessibility.

21. It is also observed that most of the service centres are located along the
river and road, some of them are in eastern and Southern part the first and
second order rural service centers which have above 80 surplus score, generally
provides economic service function and basic infrastructure like transport,
banking, marketing and wholesale trade, education and health. Third order
rural service centers provide services and facilities. The fourth and fifth order
service centers provide daily necessities to nearby rural population. They provide basic and daily needs.

22. Education has a vital role to play in the socio-economic transformation of rural area, there has been a rapid increase in number of primary school in the region under study. Most of villages have primary school, 389 higher school, 189 Junior colleges and 21 degree colleges, 7 industrial schools, 5 training school in the region.

23. Proportion of follow land observed zero percent to 14.10 percent in study region. Highest follow land was recorded in Ukalpain (14.10%) Pimpri (8.38%) and Sangwi Br (4.23%) villages, Akhatwada and warur village have observed zero percent area under follow land.

24. Proportion of net sown area was high in every villages comparatively other landuse categories. Maximum villages have recorded above 90% geographical area was under net sown area. It was found in Balegaon (96.32) Sangwi (90.61) Akhatwada (93.50) Redhora (96.95) Dadhom Bk. (92.27) and Kasola (96.46) village in study period. Due to high population pressure, adventure agricultural technology, transportation facilities may be supported to increase net sown area in the region.

25. Highest cotton area was found in hilly region village like Umarkhedi (76.50) Zarobajar (74.84) and Warur (50.93) village where as lowest cotton area was found plateau area village like Akhatwada and Badlapur 30% and 31% respectively. Valley region village observed sugarcane area like Pimpri, Tondgaon and Ukalpain village, and Hilly region only one village Zarobajar observed sugarcane area. There are shortage of irrigation, late topography and transport facilities.

The village Ridhora, Dadham bk., Pimpri, Ghonsur Adgoan, Sangwi Bk, have recorded 32.09 %, 38.23 %, 40.26 %, 25.28 %, 28.57 %, 28.20 %.
Jowar area respectively Jowar is the main food grain crop in region. Their climate condition is suitable for Jowar crop. Hence there are every villages have share in Jowar area.

26. The layout of the village settlement is generally irregular, settlements normally grow by process of accretion. Arrangement of houses with in the settlement. therefore, is general irregular. Settlement is normally near the source of drinking water and generally occupies higher ground. The road pattern and arrangement houses do not confirm to any fined pattern.

7.3 Problems:

By considering holistic view of the study, following some of the problems, which are observable in the study region.

1. Rural House Types:

Rural houses are poor and hardly provided sufficient shelter and comfort. Use of local building material (stone, mud, wood, grass) may cause some time heavy loss of lives when natural calamities such as an earthquake, which happened at nearby area of Killari (Latur) and Koyana dam.

2. Morphological Pattern:

Rural settlements are a mere medley of streets and houses. They have no definite morphological pattern. Such internal structure creates the problems for transportation, streets are narrow, public utility services, surrounding are dusty and unhygienic. There is no proper drainage system.

3. Population:

The spatio–temporal variation in demographic aspects suggests socio-economic development of the region high growth of population in the Akola district not only affects the pressure on land but also it becomes responsible for adverse effect of rural employment, level of standard of living, family health,
fragmentation of land, dependency ratio. There is low literacy rate particularly among the women.

4) Dispersion:

Dispersion of rural settlement in the study area is also a major problem even though it is unavoidable rural phenomena. Formation of ‘Wadis’, ‘Vastis and newly created hamlets particularly in the areas where irrigation facilities are introduced creating the problem of social isolation and deprived from social services and facilities.

5) Agriculture land use:

In the study area agriculture is the base of rural economy, most of the rural population depends on it for their livelihood so the problem of agriculture are the problems of the country side are observed such as climatic biotic and soil erosion from natural environment. The area under study is experiencing each and every one characteristics of the monsoon. Soil erosion and less natural vegetation cave are supporting problems for the same. High growth of rural population is creating more pressure of population on land. It consequences into fragmentations of land holding lack of marketing system, low price for agricultural commodities, large diversity of crops, low yield per unit area, lack of timely and inadequate credit facilities etc. these are the problems which are seriously experienced by the farmers in the study region.

6) Rural Service Centre’s:

Rural service centers would work as new focal points and agents of rural change but they are limited and unevenly in the study area as a consequences many small sized settlements are not come under the range of certain local service centers they have to ravel considerable distance to avail the services like health, agricultural input and other services.
7) Social amenities:

Some of the villages in the study area still lacing some social services and amenities, which are important for the integrated development of rural areas.

8) Social morphology:

Culture being an adaptive mechanism reacts to every change in natural and social environment. The base if rural social morphology is the caste and kinship which largely determine the function the status and the available opportunities. The caste differences determines the differences in mode of domestic and social life, houses types and cultural patterns of the people in the rural area, which causes the level of social distance and superior inferior relationship.

The problems stated above put a heavy responsibility on the people and the government for their solution. Academic study should came aware if such situation and as a student of geography following are some relevant suggestions are made to overcome or to minimize the above problems.

7.4 Suggestion:

1. As noticed in general landuse of the Akola district. Area under forest is decreasing considerably in the all part. So measures should be taken to increase the area under forest for environmental balance by way of social forestry and certain land should be kept under forest by the farmer. Economic base of the settlement can be improved by improving the agricultural activity. Various problems related to the agricultural landuse can be minimized by providing facilities for cash crops and efficient utilization of land and water resources with available scientific technology should be given prime priority. Watershed management programmes should be implemented and landuse pattern should be modified according to available water resources, for example
every farmer should be utilized his land holding by way of at least 25 percent land under horticulture, 25 percent land under food crops and 50 percent land under cash crops where every irrigation is available. Such pattern can be implemented in the plan and plateau area of the Akola district. This suggested pattern may be helpful to control the soil erosion as well as soil degradation and the per unit productivity will be increased. Losses caused by insects, pests and other plant diseases can be controlled by implementing the plant protective measures on co-operative basis. Importance of use of high yielding variety of seeds according to soil types, soil texture and available water resources, under the guidance of agriculture experts particularly from the agriculture university, which is Panjabrao Deshmukh Agriculture University fortunately located in Vidarbha region.

Timely and required cash credit facilities and Government subsidized loan facilities for agricultural operation should be provided to encourage the farmers. Those who are badly in need of the credit facilities will be helpful to improve the agricultural production. In order to have best advantage in marketing agricultural produce, there should be Government fixed prices (considering cost of production) transportation and storing facilities at the nearby service or market centers. Programs of animal husbandry as a subsidiary occupation for small, marginal farmers and agricultural labour should be efficiently implemented so as to maximize utilization of agricultural by product and at the same time generate the employment.

2) Morphological structure of villages in the study area market by narrow streets, houses with common wall, in most of the villages streets and lanes are fortunes, dusty, dirty. Such congested and unhealthy internal structure should be altered by improving the nature of internal streets, drainage system and providing assistance in the direction for the development of new sides with
regard basic facilities. This may improve the living conditions of the rural settlements in the study region.

3) Fast growth of population may be controlled by educating the farmers about the demerits of large family size, high birth rate effects on family health and merits of small family size, female child education and awareness of health for increasing livelihood. This may check the pressure on land and fragmentation of land. Population control measures should be effectively implemented up to remote areas of the region irrespective of caste and religion. Literacy will bring a definite psychological positive change in the attitude of the people of the region.

4) Better houses for sufficient shelter and comfort with properly local building material can be constructed. They should be constructed by taking into account the probability of an earthquake and minimize the loss of lives. It become very important after experiencing Latur (1993), Kutch (2001) and Koyana dam earthquakes in recent times. So demonstration and training in improved techniques and designs for rural housing is very necessary.

5) Physical and cultural factors are responsible for the process of dispersion of rural settlement in recent times in the study area. It in quite a natural tendency of the people to live in the vicinity or at the proximity of the farm. Their social isolation can be minimized if certain groups of hamlets are provided. The common social place, with social services and amenities and connected by the transportation and communication network. So that they can enjoy both the social life as well as proximity of the land.

6) For the over all development of rural settlements, rural service centre play very vital role, so that potential service centers should be located on the basis of an area, economic base and a range of population, which can be sufficiently large to support economic and social services to nearby rural
settlements. The intimate links of economic and social should be existed between neigboupuring villages. Hence, there should be schematic hierarchy of rural settlements i.e. small villages at lower level. Central village at middle level and service center at higher level. Selection If such centers may be based on historico-cultural, economic and location significance in the region. Such central service, centers bring social economic and cultural changes in rural areas by way of maximum contacts of the people with minimum efforts in a certain space such type of development of service centers within the study area not only help to provide various services to nearby villages but also will be responsible to reduce the regional imbalances in the provision of socio economic facilities. Newly created centers should be connected with dependent small settlements by network of cart track or roads. This will help to increase interaction between them and ultimately planned regional development.

7) Social amenities, which are lacking in certain village of study region should be provide at least faced manner i.e. establishment of primary health centers, dispensaries, maternity homes and hospitals in each hierarchical centers. It should also include fresh tap water supply, control of epidemic and educating people in hygienic living and village sanitation, transportation and communication facilities become very much important in respect of accessibility to other villages, so the road system in the rural area should be developed to link every village through feeder roads with the main roads and there should be no single village which is located 3 to 5 km from the main road. Postal, Telegraph, Telephone Communication become necessary in present day. So this facility should be provided for every village. Provision of audio visual aids for instruction information and recreation of the villager should be provided to improve the cultural, social and economic life of rural dwellers.
8) In respect of social morphology in rural areas, there are evidences that caste, as a system is losing its grip in rural society too. We hope in the course of time, the state of Mahatma Phule, Chhatrapati Shivaji Maharaj and Dr. Ambedkar will swallow up the caste in the study area as well as in the state and in the nation.