



**SPATIAL DISTRIBUTION OF RURAL SETTLEMENTS IN SOUTHERN ANDHRA PRADESH
-A GEOGRAPHICAL PERSPECTIVE**

Dr K. Madumathi¹ Dr. N.Cenrayudu² & Dr. T.Chandrasekarayya³

¹Research Scholar & ²Assistant Professor,

Dept.of Geography, S.V.University,Tirupati, A.P-517502.

³Assistant Professor, Dept.of Population Studies & Social Work,

S.V.University, Tirupati, A.P-517502.

ABSTRACT

Many scholarly geographers, sociologists and demographers have defined population and settlements. The concepts of settlement geography include the spatial arrangement of houses in relation to transportation lines, industrial locations, agricultural operations, utilisation of land, ranching of cattle, technical know-how through educational institutions, defence from thieves and hazards of climate, etc., all for the welfare of human society. These are directed towards the understanding of the variable settlement traits of places, the causes of their location, consequences and above all, their interactions with physical and cultural parameters. The study aims at examine the spatial distribution of rural settlements in southern Andhra Pradesh based on census data for five census periods (1971-2011) and measures are suggested for policy implementation.

Keywords

Settlement geography, Spatial distribution, Rural settlements and Inhabited villages,

Introduction

The concept of “settlement geography” derived from the German expression “Siedlungs geographie” as the cultural landscape created by man in the process of occupancy of land, is the product of the ecological balance of different variables obtained in a given environment. The science of settlement is now-a-days known by the term ‘ekistics’, which was originally devised by C.A. Doxiadis, the architect of the capital city of Islamabad in Pakistan. It is a Greek word and again means the science of settlement (Mandal and Sinha, 1980). Settlement story is multidisciplinary in nature, where geographers study the spatial arrangement of habitation, sociologists focus attention on social groups, economists study its occupation location for economic gains, while planner’s shows interest on centres round the best environmental conditions in it. The concept of evolution of rural settlement also includes the colonization spread and competition of different clan groups in the process of origin and growth of rural

settlement (Mandal, 1979). Rural settlement geography and urban settlement geography are the two areas that constitute the discipline of settlement geography. Many European and other scholars (Michael Pacione, 1986) have contributed substantially to this branch of geographical knowledge. But the history of systematic study of rural settlement goes back to the twenties of the present century when scholars like Paul, Vidal de la Blache, Auronssean, Ahlmann, Demangeon, Brunhes and others started laying the foundations of the branches of settlement geography (Mandal,1979). Geographers (Mann,1974; Mehar Singh Gill,1982) consider rural settlements as a man-made habitat on the rural landscape, based on primary occupations such as agriculture, forestry, mining, fishing, hunting etc., which flourish on local resources. They examine such settlement features as buildings and their architectural styles, roads, and lanes, in order to distinguish new categories and patterns and determine their functional relationships. Thus the size, spacing, form and functions of rural settlements and their origin are essentials of the subject matter. Their regional variations are mostly dependent on the sequential growth of their morphology and the social and economic structure of the society they represent and serve (Mandal 1981, p.16). According to C.F. Kohn (1959), "rural settlement, man's living and functional space, dots the countryside pre-historic times and forms an integral part of life". A rural settlement, as the point of origin and primary residence of human society, is the life source of all geographical studies. Therefore, the consideration of settlement runs like a central thread through almost the whole fabric of geographic thought.

Objective

1. To study the spatial distribution of rural settlements in Southern Andhra Pradesh for five census periods
2. To identify the most dynamic settlements in order to envisage the probable future evolution of settlements.

Methodology

The study area is Southern Andhra Pradesh, which comprises six districts namely Prakasam and Nellore from coastal Andhra region and Chittoor, Y.S.R Kadapa, Anantapur and Kurnool are from Rayalaseema region. The present study is based on secondary source, major data collected from census years 1971-2011 apart from other sources. In this study, for the purpose of analysis, the rural settlements are categories into three categories as small settlements with population of 1000 and less, medium settlements with 1001-2000 and large settlements with 2001 and above. Percentages are calculated and bar graphs are used to analyse the census data.

Results and Discussion

Rural settlements include inhabited and uninhabited villages. Data obtained from the 1971, 1981, 1991,2001 and 2011 census are taken into consideration for the classification of settlements Date relates to spatial distribution of rural settlements in southern Andhra Pradesh is furnished in table-1.1 .

Table-1.1: Southern Andhra Pradesh: Distribution of Rural Settlements, 1971-2011

S. No	Name of the district	Total No. of villages					Inhabited villages					Uninhabited villages				
		1971	1981	1991	2001	2011	1971	1981	1991	2001	2011	1971	1981	1991	2001	2011
1.	Prakasam	1,097	1,092	1,081	1,083	1,081	1,005	1,007	998	992	985	92	85	83	91	96
2.	Nellore	1,099	1,182	1,179	1,192	1,177	1,050	1,110	1,100	1,110	1,093	49	72	79	82	84
3.	Chittoor	1,316	1,391	1,521	1,581	1,493	1,277	1,352	1,481	1,480	1,455	39	39	40	38	38
4.	Y.S.R Kadapa	972	968	950	954	919	896	896	880	876	830	76	72	70	78	89
5.	Anantapur	958	958	956	952	949	930	934	932	925	921	28	24	24	27	28
6.	Kurnool	918	911	913	913	898	898	892	886	884	870	20	19	27	29	28
7.	Southern A. P.	6,360	6,502	6,600	6,612	6,517	6,056	6,191	6,277	6,267	6,154	304	311	323	345	363

Source: Census Publications of the relevant years

During the 1971, 1981, 1991, 2001 and 2011 census, the study region had 6,360; 6,502; 6,600, 6,612 and 6,517 number of rural settlements respectively. In 1971, 6,056 out of 6,360 were inhabited and the remaining 304 were uninhabited. In 1981, 6,191 out of 6,502 were inhabited and the remaining 311 were uninhabited. In 1991 there were 6,277 inhabited and 323 uninhabited settlements. Similarly, in 2001 there were 6,267 inhabited and 345 uninhabited settlements, In recent census period of 2011, there were 6,154 inhabited and 363 uninhabited settlements, (Table-1.1).

According to the 1971, 1981, 1991, 2001 and 2011 census; the Prakasam district had 1,097, 1,092, 1,081, 1,083 and 1,081 rural settlements respectively during those years. Out of the total number of villages 1,005, 1,007, 998, 992 and 985 were inhabited and 92, 85, 83, 91 and 96 were uninhabited respectively. Nellore had 1,099; 1,182; 1,179, 1,192 and 1,177 villages during 1971, 1981, 1991, 2001 and 2011. Of them, 1,050; 1,110, 1,100, 1,110 and 1,093 were inhabited and 49, 72, 79, 82 and 84 were uninhabited, respectively. The Chittoor district had 1316, 1391, 1521, 1581 and 1493 villages. Of them, 1277, 1352, 1481, 1,480 and 1,455 were inhabited and 39, 39, 40, 38 and 38 were uninhabited respectively. Y.S.R Kadapa had 972, 968, 950, 954 and 919 villages, of which, 896, 896, 880, 876 and 830 were inhabited and 76, 72, 70, 78 and 89 were uninhabited respectively. Between 1971 and 1981 the number of decreased by 16. There were 958 settlements in Anantapur both in 1971 and 1981, 956 in 1991, decreased to 952 in 2001 and 949 in 2011. Among them 930, 934, 932, 925 and 921 respectively were inhabited and 28, 24, 24, 27 and 28 respectively were uninhabited. The number of villages in Kurnool was less than the number of villages in the other districts. It had 918, 911, 913, 913 and 898 villages in 1971, 1981, 1991, 2001 and 2011 respectively, of which 898, 892, 886 and 884, 870 were inhabited and 20, 19, 27 and 29, 28 were uninhabited respectively (Table-1.1).

The Prakasam district had 1097 villages during 1971, 1092 in 1981, 1081 in 1991, 1083 in 2001 and 1083 in 2011. The number of rural settlements had decreased during 1981, 1991, 2001 and 2011. There was

a vast differences in growth of rural settlements in Nellore, which had 1,099 in 1971, 1,182 in 1981, 1,179 in 1991, 1,192 in 2001 and 1177 in 2011 and gaining 13 of them during 1991-2011. Among the districts of the study area, Chittoor registered an increase in the number of villages. They were 1316 in 1971, 1391 in 1981, 1521 in 1991 which came down to 1518 in 2001 and 1493 in 2011, showing a decline of 25 over the previous figure. A decrease in the number of villages is observed in the Y.S.R Kadapa district during the same period. It had 972 in 1971, 968 in 1981, 950 in 1991, 954 in 2001 and 919 in 2011. In Anantapur too there was a decrease in numbers it had 958 villages both in 1971 and in 1981, 956 in 1991, 952 in 2001 and 3 villages disappeared in 2011 with 949. Kurnool presented a very slightly different picture. It had 918 in 1971, and the number came down to 911 in 1981 and rose to 913 in 1991 and recorded as same as to 913 in 2001, which come down to 898 in 2011, with a decrease of 2 villages from 1981 to 2001. The rural settlements are classified here into small, medium and large settlements. A settlement with a population less than 1000 is called small, a settlement consisting population between 1001-2000 is called medium and settlement having above 2,000 populations is classified as large, which are furnished in table-1.2..

Table-1.2: Southern Andhra Pradesh: Size and Number of Settlements-1971

S.No	Name of the district	No. of settlements			% of total			Total No. of inhabited villages
		1000 and less	1001-2000	Above 2000	1000 and less	1001-2000	Above 2000	
1.	Prakasam	431	278	296	42.8	27.6	29.4	1,005
2.	Nellore	579	273	198	55.1	26.0	18.8	1,050
3.	Chittoor	509	409	359	39.8	32.0	28.1	1,277
4.	Y.S.R Kadapa	435	234	227	48.5	26.1	25.3	896
5.	Anantapur	315	282	333	33.8	30.3	35.8	930
6.	Kurnool	309	319	270	34.4	35.3	30.0	898
7.	Southern A.P	2,578	1,795	1,683	42.6	29.6	27.7	6,056

Source: Census Publications of the relevant years

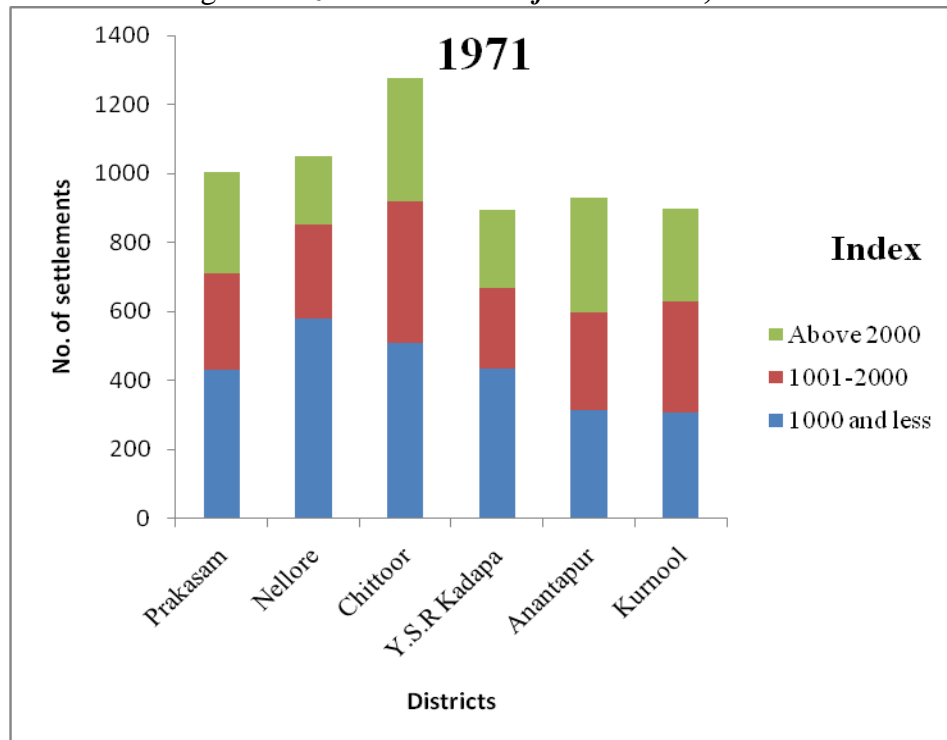
According to the 1971 and 1981 census, the study region had 2578 (42.6%) and 2479 (40.4%) villages with a population below 1000, 1795 (29.6%) and 1723 (27.3%) villages with a population between 1001 to 2000 and 1683 (27.7%) and 1995 (32.2%) with a population above 2000, respectively.

As per the 1991 and 2001 census, the study region had 2,216 (36.1%) and 2,078 (33.15%) villages with a population below 1000, 1,638 (26.1%) and 1,605 (25.60%) villages with a population between 1001 to 2000 and 2,378 (37.9%) and 2,585 (41.25%) with a population above 2000, respectively. These rural settlements of three size classes were unequally distributed.

According to the 2011 census, the study region had 1919 (31.2%) with a population below 1000, 1534 (24.9%) villages with a population between 1001 to 2000 and 2701 (43.9%) with a population above 2000, respectively (Table-1.5).

Regarding the spatial distribution of these rural settlements in 1971, (Table-1.2 and Fig-1.1), Nellore had a concentration of 55.1 per cent of smaller settlements (1,000 and below), Y.S.R Kadapa 48.5 per cent, Prakasam 42.8 per cent, Chittoor 39.8 per cent, Kurnool 34.4 per cent and Anantapur with 33.8 per cent.

Fig-1.1: Size and Number of Settlements, 1971



In 1971, regarding medium-sized settlements (1001-2000), Kurnool had 35.3 per cent, Chittoor 32.0 per cent, Anantapur 30.3 per cent, Prakasam 27.6 per cent, Y.S.R Kadapa 26.1 per cent and Nellore 26.0 per cent. On the other hand, large settlements of over 2000 population were found in the districts in the following order: Anantapur 35.8 per cent, Kurnool 30.0 per cent, Prakasam 29.4 per cent, Chittoor 28.1 per cent, Y.S.R Kadapa 25.3 per cent and Nellore 18.8 per cent.

Table-1.3: Southern Andhra Pradesh: Size and Number of Settlements-1981

S.No	Name of the district	No. of settlements			% of total			Total No. of inhabited villages
		1000 and less	1001-2000	Above 2000	1000 and less	1001-2000	Above 2000	
1.	Prakasam	392	267	348	38.9	26.5	34.5	1,007
2.	Nellore	585	273	252	52.7	24.5	22.7	1,110
3.	Chittoor	542	390	420	40.0	28.8	31.0	1,352
4.	Y.S.R Kadapa	406	232	258	45.3	25.8	28.7	896
5.	Anantapur	281	268	385	30.0	28.6	41.2	934
6.	Kurnool	273	293	332	30.6	32.8	37.2	892
7.	Southern A.P	2,479	1,723	1,995	40.4	27.8	32.2	6,191

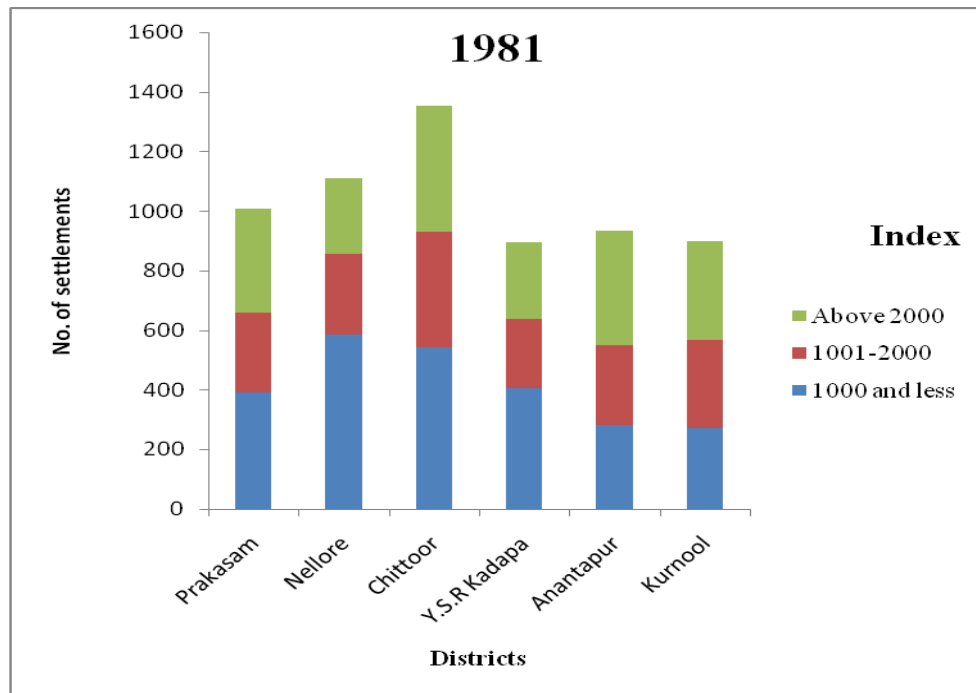
Source: Census Publications of the relevant years

When the spatial distribution of rural settlements in 1981, in the study region is observed, it is noticed (Table-5.3 and Fig-5.2) that Nellore had 52.7 per cent of smaller settlements, Y.S.R Kadapa 45.3 per cent, Chittoor 40.0 per cent, Prakasam 38.9 per cent, Kurnool 30.6 per cent and Anantapur with 30.0 per cent. Regarding medium-size settlements (1001-2000), Kurnool had 32.8 per cent of them, Chittoor 28.8 per cent,

Anantapur 28.6 per cent, Prakasam 26.5 per cent, Y.S.R Kadapa 25.8 per cent and Nellore 24.5 per cent, all in this decreasing order.

On the other hand, large settlements of over 2000 population were found in the following manner in the district: Anantapur 41.2 per cent, Kurnool 37.2 per cent, Prakasam 34.5 per cent, Chittoor 31.0 per cent, Y.S.R Kadapa 28.7 per cent, and Nellore 22.7 per cent.

Fig-1.2: Size and Number of Settlements, 1981



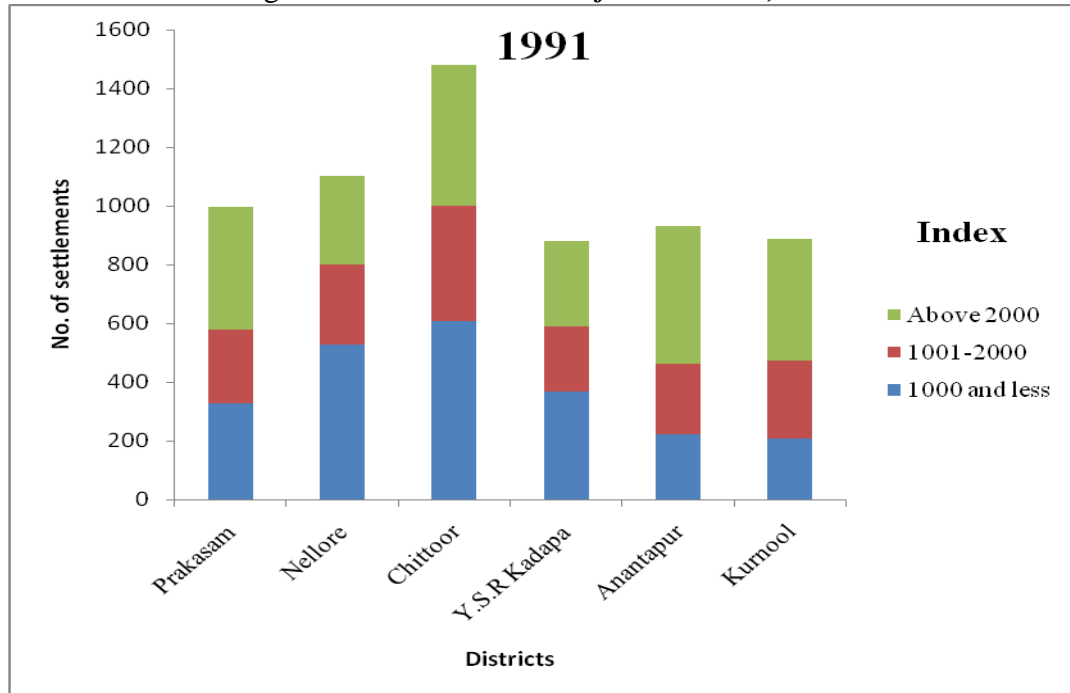
Regarding the spatial distribution of these rural settlements in 1991, (Table-1.4 and Fig-1.3), Nellore had a concentration of 48.1 per cent of smaller settlements (1,000 and below), Y.S.R Kadapa 41.6 per cent, Chittoor 41.1 per cent, Prakasam 33.0 per cent, Anantapur with 23.8 per cent and Kurnool with 23.3 per cent.

Table-1.4: Southern Andhra Pradesh: Size and Number of Settlements, 1991

S.No	Name of the district.	No. of settlements			% of total			Total No. of inhabited villages
		1000 and less	1001-2000	Above 2000	1000 and less	1001-2000	Above 2000	
1.	Prakasam	329	248	421	33.0	24.8	42.2	998
2.	Nellore	529	270	301	48.1	24.5	27.4	1,100
3.	Chittoor	609	390	482	41.1	26.3	32.5	1,481
4.	Y.S.R Kadapa	366	224	290	41.6	25.5	33.0	880
5.	Anantapur	222	238	472	23.8	25.5	50.6	932
6.	Kurnool	206	268	412	23.3	30.2	46.5	886
7.	Southern A.P	2,261	1,638	2,378	36.0	26.1	37.9	6,277

Source: Census Publications of the relevant years

Fig-1.3: Size and Number of Settlements, 1991



Regarding medium-size settlements (1001-2000), Kurnool had 30.2 per cent, Chittoor 26.3 per cent, Y.S.R Kadapa and Anantapur had 25.5 per cent each, Prakasam 24.8 per cent, and Nellore 24.5 per cent. On the other hand, large settlements of over 2000 population were found in the districts in the following order: Anantapur 50.6 per cent, Kurnool 46.5 per cent, Prakasam 42.2 per cent, Y.S.R Kadapa 33.0 per cent, Chittoor 32.5 per cent, and Nellore 27.4 per cent.

Table-1.5: Southern Andhra Pradesh: Size and Number of Settlements, 2001

S. No	Name of the district	No. of settlements			% of total			Total No. of inhabited villages
		1000 and less	1001 - 2000	Above 2000	1000 and less	1001-2000	Above 2000	
1.	Prakasam	285	254	453	28.73	25.60	45.67	992
2.	Nellore	516	278	316	46.49	25.05	28.46	1,110
3.	Chittoor	568	380	532	38.37	25.68	35.95	1,480
4.	Y.S.R Kadapa	350	219	308	39.90	24.98	35.12	877
5.	Anantapur	195	221	509	21.08	23.89	55.03	925
6.	Kurnool	164	253	467	18.55	28.62	52.83	884
7.	Southern A.P	2,078	1,605	2,585	33.15	25.60	41.25	6,268

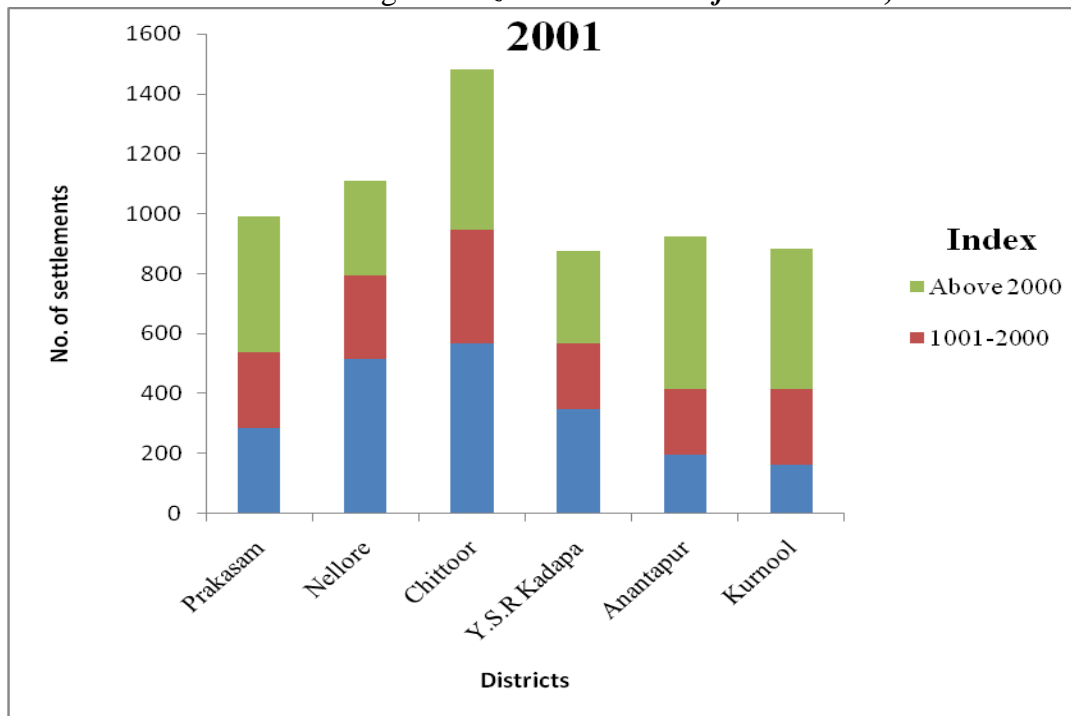
Source: Census Publications of the relevant years

According to the 2001 census, the study region had 2,078 (33.15) villages with a population below 1000, 1,605 (25.60%) villages with a population between 1001 to 2000 and 2,585 (41.25%) with a population above 2000, respectively. These rural settlements of three size classes were unequally distributed (Table-1.5).

Regarding the spatial distribution of these rural settlements in 2001, (Table-5.5 and Fig-5.4), Nellore had a concentration of 46.49 per cent of smaller settlements (1,000 and below), Y.S.R Kadapa 39.90 per cent, Chittoor 38.37 per cent, Prakasam 28.73 per cent, Anantapur with 21.08, and Kurnool with 18.55 per cent.

Regarding medium-size settlements (1001-2000), Kurnool had 28.62 per cent, Chittoor 25.68 per cent, Prakasam 25.60 per cent, Nellore 25.05 per cent, Y.S.R Kadapa 24.98 per cent and Anantapur 23.89 per cent. On the other hand, large settlements of over 2000 population were found in the districts in the following order: Anantapur 55.03 per cent, Kurnool 52.83 per cent, Prakasam 45.67 per cent, Chittoor 35.95 per cent, Y.S.R Kadapa 35.12 per cent and Nellore 28.46 per cent (Table-1.5 and Fig-1.4).

Fig-1.4: Size and Number of Settlements, 2001



Regarding the spatial distribution of these rural settlements in 2011, (Table-1.5 and Fig-1.5), Nellore had a concentration of 44.7 per cent of smaller settlements (1,000 and below), Y.S.R Kadapa 38.2 per cent, Chittoor 35.5 per cent, Prakasam 27.1 per cent, Anantapur with 20.2 per cent. And Kurnool with 16.6 per cent.

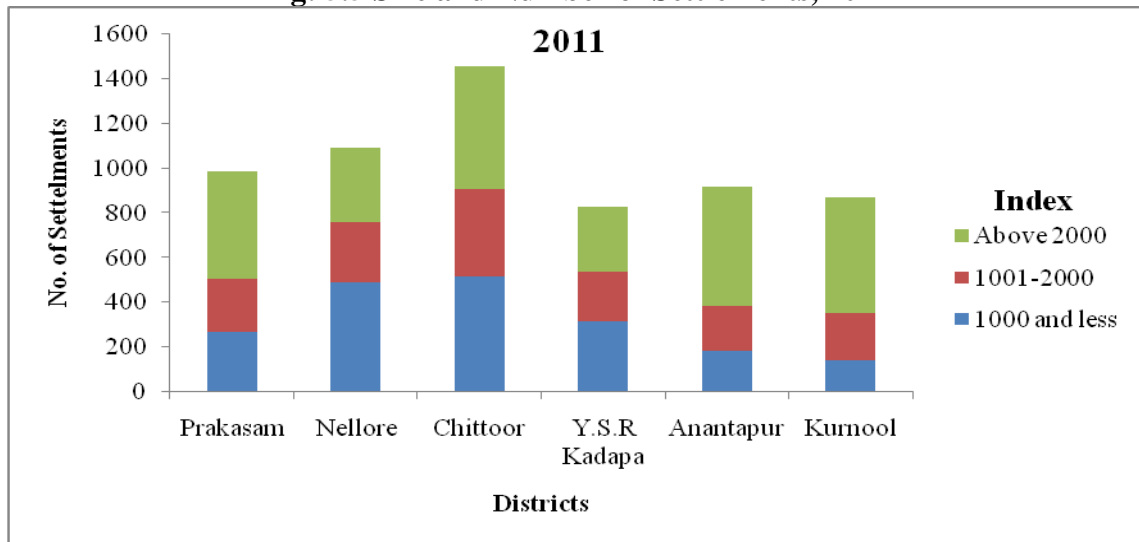
Table-1.5: Southern Andhra Pradesh: Size and Number of Settlements, 2011

S.No	Name of the district	No. of settlements			% of total			Total No. of inhabited villages
		1000 and less	1001 - 2000	Above 2000	1000 and less	1001 - 2000	Above 2000	
1.	Prakasam	267	242	476	27.1	24.6	48.3	985
2.	Nellore	489	274	330	44.7	25.1	30.2	1093
3.	Chittoor	516	392	547	35.5	26.9	37.6	1455
4.	Y.S.R Kadapa	317	219	294	38.2	26.4	35.4	830
5.	Anantapur	186	197	538	20.2	21.4	58.4	921
6.	Kurnool	144	210	516	16.6	24.1	59.3	870
7.	Southern A.P	1,919	1,534	2,701	31.2	24.9	43.9	6,154

In 2011, regarding medium-sized settlements (1001-2000), Chittoor 26.9 per cent, Y.S.R Kadapa 26.4 per cent, Nellore 25.1 per cent, Prakasam 24.6 per cent, Kurnool had 59.3 per cent and Anantapur 58.3 per

cent, and. On the other hand, large settlements of over 2000 population were found in the districts in the following order: Prakasam 48.3 per cent, Chittoor 37.6 per cent, Y.S.R Kadapa 35.4 per cent and Nellore 30.2 per cent (Table-1.5 and Fig-1.5).

Fig: 5.5 Size and Number of Settlements, 2011



The number of rural settlements in the study area was large. They were of different classes and distributed irregularly over the region. The settlements in Nellore and Prakasam districts are very resourceful because these districts are located on the coastal line. The Nellore district has fertile soils and river Pennar is draining in the district. The Prakasam district, in spite of its soils and on the coastal side is being poor. It is rich in black soils on the inland side, where tobacco is grown on a large scale. It supplies tobacco to the international market. The Rayalaseema districts, located as they are amidst the Eastern Ghats, have a rugged topography and therefore have poor soils and are without water resources. Hence these districts depend on tanks and well for irrigational and drinking water. However, the Kurnool and Y.S.R Kadapa districts are supplied with water by the K.C.Canal which drains the agricultural lands of the northern side of these districts. Chittoor and Anantapur, do not have any worth-mentioning river water sources. They therefore, depend on tanks and wells for irrigation. Required numbers of industries are not established in these districts to provide employment opportunities. Agricultural activities are diminishing due to seasonal variations. Therefore, people from rural areas are migrating to nearby urban places for their livelihood.

Summary

As rural population increases, the number of rural settlements also increased. It is interesting to note that the number of villages increased from 6056 in 1971 to 6191 in 1981, 6277 in 1991, 6,612 in 2001. Where as it is noticed that, number of villages decreased to 6517 in 2011. The rural population increased from 97, 14,065 to 11,24,554 during 1971 and 81 respectively and to 1,31,07,229 in 1991. The rural population was 1,43,37,096 in 2001 and 1,55,16,026 in 2011. In 2011, about 31.2 per cent of the total villages were small-sized (below 1,000 population) 24.9 per cent medium-sized (1001-2000) and 43.9 per cent large-sized (above 2000 population) villages. All the infrastructural facilities mentioned above are confined to the towns, whereas the rural areas are suffering due to lack of facilities. Therefore, the rural, urban migration has become a continuous phenomenon as a result of which the rural areas are still in functional remoteness.

Though the central and state governments have allocated a large share of the plan finance for the development of rural areas by promoting agriculture and industrial activities, it has not reached the beneficiary villages due to various problems of administration and political interference. Therefore, urban areas are continuously growing depriving the rural areas of their share of development. Although there is a lot of mineral wealth in Southern Andhra Pradesh, it is not properly identified and extracted. The people of

this area are not rich enough to start industries on their own with the locally available raw materials. Therefore, the area could not develop and advance industrially, and provide employment opportunities and thus invigorate its economic status.

Provision of infrastructural facilities in the area naturally depends on agricultural and industrial development within it. A strong economic base will make for very strong infrastructural base, which in turn helps the development of the basic sectors. The rural areas of the study area are poor and hence infrastructural facilities in them are either absent or very inadequate, thereby posing problem of development. The study reveals the various existing rural problems have to be further studied through scientific methods to find solutions for them.

Suggestions

1. Development of infrastructure in rural areas and providing urban amenities in rural areas can positively curtail the rural to urban migration, which will determine the growth of rural settlements.
2. Decentralisation of development activities in urban hinterlands also play crucial role in growth of rural settlements by way of commutation rather than migration..
3. Establishment of agro based small as well as medium scale in rural areas also causes the balanced growth rural and urban settlements.
4. In rural development budget, considerable proportion of amount should be allocated for rural housing and to provide agriculture inputs at subsidiary rates

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