ABSTRACT

The present thesis is a geographic study of settlements as service centres or central places for their surroundings with special reference to central place theory and comprises five chapters.

Chapter I deals with the geographical set up of the region. It includes two parts. Part I describes the physical setting of the region.

Part II underlines a detailed study of the cultural setting of the region. The area under study has a population of 12,633,618 spreading over an area of 33,227 sq. km giving a density of 395 persons per sq. km which is very high as compared to national figure (178). The region includes 19,293 villages ranging from a population of two persons (Ashapur, Bahraich) to 13,228 (Lar, Deoria). The urban population is only 4.99 per cent which is much less even by the national standard (19.91). It is interesting to note that the total urban population of the entire territory is almost equal to only one urban centre of the state of Uttar Pradesh, viz., Agra urban agglomeration. The whole region is dominated by one city, namely, Gorakhpur, others towns are stagnant or declining. The extensive rural base creates a very serious economic problem in terms
of over-increasing pressure of population on agricultural land. Only six towns out of 18, which are really urban in character and contain three-fourths of the urban population, bear close relationship as compared to the other twelve towns which present a vast scene of rurality and have one-fourth of the urban population of the region.

Chapter II takes into account the conceptual framework of settlement hierarchy. It brings out the concept of hierarchy from different angles. Reference has been made to some locational models, particularly the central place model. It purports to bring out an awareness of the terminology which is current in this field. The discussion also examines the significance and scope of the work.

Chapter III makes an attempt to identify the service centres in the area under study. In the absence of towns as specialised centres and break of bulk points, the cities and towns and sizeable villages function as service centres for their surroundings. It was tested whether these service centres produce step like hierarchical arrangement or near continuous sequence when measured and ranked by the size and variety of central functions. For this purpose, this chapter reviews the different techniques used in this sphere, and keeping in view the Indian conditions
and particularly the nature of the area under study, adopts a suitable method for the classification of centres. In this connection 54 central place functions have been assigned weightage on the basis of population threshold. Thus, multiplication of the relevant weightage by the number of units of each functional type present in a centre gives the centrality values for every different type of function. Finally, a functional index has been derived by the addition of all centrality values obtained by each centre. When these values have been produced on a scatter diagram 'more obvious' and 'less obvious' breaks appeared which consequently have been used to classify the centres in five orders. The breaks do appear but they are meaningful only at the upper stratum of hierarchy. Although a discernable hierarchy in terms of functional magnitude is identified, it is not well articulated with respect to functional specialization at a level lower than district headquarters. The centres of lower grade are thus exposed by their weakest functional structure claiming hardly any functions as characteristic of their level. If the lower order centres had possessed distinctive functions they would have also produced the breaks more obvious and meaningful.

Chapter IV on spatial measurement shows that owing to the great dearth of small service centres, considerable
areas particularly the interior part of the territory, remain unserved. Much dependence of the rural folk on periodic markets, moving salesmen, pedestrian movement, cycle, ox-cart and horse-cart journey precludes trips to higher order centres. All this indicates the general poverty of the region and less functional interaction between the centres. All the consumers do not patronize the nearest centres. The notion varies according to the nature of the commodity. However, all the service centres have small trade areas for ubiquities and higher order centres possess large trade areas for specialities. Again, it has been found that service areas of smaller centres for ubiquitous goods nest within the service areas of larger centres for specialized goods but it is not strictly fit throughout the ladder of the hierarchy. Complementary regions of some centres are distorted while that of others are incomplete. Hexagonal or circular areas do not seem to exist in reality.

After all, the present findings support the notion of hierarchy of service centres. However, there is nothing approaching the regularity in a strict hierarchical sequence, as anticipated by Christaller. As the central place model rests on certain simplifying assumptions which are not met in the area under study.
After an extensive study of the area, the last chapter of the thesis presents an alternative strategy for regional development and suggests recommendation. The causes for the absence of a well developed hierarchy in the region are that the area under study is economically backward. The people spend much less on cultural, social and recreational activities and a large amount of their expenditure is incurred on basic necessities of food and clothing. Purchasing power of the people is low. The application of central place model is, therefore, limited to tertiary activities. It overlooks the secondary sector while economic activities and tertiary activities are interrelated at all levels of development and they are strengthened more and more with the passage of development. It has been suggested that it is unwise to devise a single model of settlement organization. The model should be conducive to the differing needs of the region. For the area which is economically backward, there is a need of a more flexible model, perhaps akin to Christaller settlement system and integrated with growth pole theory of Perroux. The allocation of social and economic services to a particular level of settlement must go hand in hand.

The hierarchy of centres based upon social services should not be used as a general framework in planning policies. The allocation of social services is influenced by political
expediency of local leaders, while the marketing activities emerge through stimulus of actual needs. Therefore, hierarchy of centres based upon the number and types of shops and size of commercial population would be more fruitful for the regional development in backward areas, where the general majority of population moves outside to meet merely the marketing requirements. In the analysis of consumer's behaviour and spatial accessibility it has been found that administrative centres are frequently visited for marketing and economic activities. In the area under study the people are not inclined to visit different centres for different requirements. They intend to fulfil all their socio-economic demands from one centre. Poverty has reduced their spatial accessibility. In order to minimize the problem of spatial accessibility, the distribution of social services with administrative centres rather than at specific locations / Therefore a five level hierarchy of administrative centres has been proposed for the allocation of social, cultural and economic services. Although there is general tendency for the administrative headquarters to be located at the important market centres some of the villages without adequate shopping and marketing facilities have been chosen as Block headquarters. Similarly, many a block centres do not enjoy central location and they are developed on inappropriate sites owing to the political
expediency of local leaders. Such Block centres have also been included in the proposed scheme because the government is committed to develop these places as 'local growth centres'. At the commencement of the 'Block Development Scheme' it was stipulated that each Block would cover hundred villages involving 50 to 70 thousand population. Even after a lapse 29 years, the number of Block centres are not commensurate with the increased population. Now each block serves about 170 villages comprising about 125 thousand people. It is suggested that the number of Block centres should be increased to conform to the original number of population in each block. In the near future when a programme is under taken by the government, the new Block centres should be developed on the important market centres having central location. Attempts have been made to mark out the places which lack facilities that are possessed by other administrative centres of similar rank in the identified hierarchy. It has been suggested that the lowest level centre should be approachable within an hour of foot-journey, i.e., a distance of about five km. To adjust the geographical and criterion rigidities, the centre may be located at a radius of eight km, about half an hour journey by bicycle. But a distance more than eight km would be inconvenient to a local consumer who is generally a farmer.
Poor development of urban hierarchy is the main hindrance for the diffusion of dynamism and modernization in the countryside. The need is more than obvious to narrow down the cleavage between urban and rural sector. It is possible through the induction of medium and small size urban centres. Hence it is recommended that all the administrative centres upto the tahsil level should be urban in character and all the block centres should be rural communities. For this, the solution is to enhance the urban economy by establishing economic bases, e.g., industries, trade, commerce, transport and provision of infrastructure at all levels. There should be induction of industries at medium centres rather than heavy concentration at regional centre.

For the development of the area the real solution is to rid the region from poverty and backwardness and to take measures for minimising calamities of droughts and floods.

Tahsil headquarters have an intermediary position in the regional settlement hierarchy. At present only six out of 16 tahsil possess urban status. It is suggested that all of them should be urbanized by establishing such acro-
industries for which the raw materials are locally or regionally available, e.g., paper mill, rice processing, sugarcane processing, wooden processing, dairy products, leather and bone processing and the like.