## Chapter - VII

## Hierarchy of Settlements in North Bengal

Urbanization in North Bengal is meagre. There are only 27 urban centres in the region and none of them enjoys the status of a city. Nearly 99.51 percent of the land area of North Bengal is rural with 7,179 inhabited rural settlements in it. These rural settlements offering different types of services cater to the needs of the rural population. The rural centres are classified here on the basis of the services offered by them and the hierarchy of rural settlements has been derived from the extent of external services made available by them to the surrounding areas.

The hierarchy of settlement reveals the order or the status of the settlements as acquired through function. It thus represents a classification of settlements according to their rank. The rural settlements falling under different orders are nothing but the rural service centres or the 'Service villages'[1] Christaller has termed these service centres as central places. He has defined the hierarchy of central places on the basis of the central goods and services offered by the settlements to the surrounding areas. According to him, each specific group has its specific functions. The higher order settlements have greater variety of services to offer besides all those of the lower order settlements which differentiate them from the lower order settlements. In his theory the population of the centre have much importance as they provide goods and services for the population

of its complementary region[2]. But Johnston in his work found no correlation between the importance of the settlement and the population size. According to Berry and Garrison (1958), the higher order settlements possess a more complex type of functions than the lower order settlements. The service area of the higher order settlements are larger than its subordinate orders. Smailes A.E. (1944) in his work on 'The urban Hierarchy in England and Wales' defined the central places as the centre of concentration of retail business. He has, however, attached much importance to various activities of the centre like, education, recreation, administrations, health, etc.

Bhattacharya, B. (1972) in his, work on 'Urban Hierarchy in North Bengal' has laid emphasis on the administrative activity, communication, finance, education, health, transport and the recreational activities of the centre beyond the commercial activity. He stressed on the administrative activities of the centre as determining the hierarchy.

Criteria for Settlement Hierarchy

The hierarchy of rural settlements appears to be different from the hierarchy of the urban centres as the complexity of functions of the urban centres are absent in the rural settlements. The rural economy of North Bengal is mainly agricultural. Here 74.60 percent of the working population are engaged in agricultural activities, but there are large number of rural workers engaged in non-farm activities. In the rural areas of North Bengal the development of the service centres is dependent on minor points of

focus which may not generally be associated with retail trade. The hierarchy of rural service centres is made on the basis of score values attributed to the activities like administration, communication, finance, industry, education, health, transport and recreation. The population size of the settlement is not a criterion for determining the hierarchy of service centres; it is reasonable to make out the same on the basis of available services from the villages in terms of score values which is shown in the following table with points for each function (Bhattacharya, 1972).

Table - 54

Central Functions offered by the Rural settlements.

| Types of central functions | | Score values |
|---|---|---|
| A. Administrative | (a) Government office | 1 |
| | (b) Panchayat | 2 |
| | (c) Police station Headquarter | 3 |
| B. Communication | (a) Post Office (sub) | 1 |
| | (b) Post office with public call office | 2 |
| | (c) Telephone Exchange | 3 |
| C. Finance | (a) Cooperative Society | 1 |
| | (b) Gramin Bank | 2 |
| | (c) United Bank | 2 |
| | (d) Central Bank | 2 |
| | (e) State Bank | |
| D. Industry | (a) Small scale and cottage industry | 3 |

| | | |
|---|---|---|
| E. Education | (a) Primary School | 1 |
| | (b) Junior high school | 3 |
| | (c) Madrasa (High) | 3 |
| | (d) High School | 3 |
| | (e) B.T.College | 4 |
| | (f) Other College | 4 |
| | (g) Technical College | 5 |
| | (h) University | 6 |
| F. Health | (a) Charitable Dispensary | 1 |
| | (b) Family Planning Centre | 2 |
| | (c) Sub Centre | 2 |
| | (d) Subsidiary Health Centre | 3 |
| | (e) Primary Health Centre | 4 |
| | (f) Hospital | 5 |
| G. Transport | (a) Bus stop | 1 |
| | (b) Railway Station | 2 |
| | (c) Air Port | 4 |
| H. Recreation | (a) Cinema | 2 |

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The activities mentioned in the table are present in the rural areas of North Bengal. In the police station head-quarters, there are several government offices and semi-government offices which increases the status of that particular rural settlement. Panchayats have much importance in the rural field because there is a close relationship between the panchayat and the rural people.

It represents the body of a local self-government through which various problems of the people like agricultural, economic and solved. It controls the administration of the rural areas.

The post office provides an important means of communication in the rural areas and those of lower grades are present in many villages of North Bengal. The post office with a public call (telephone) system is more important than the sub-post office. The telephone exchange is present in a few rural areas. Its importance is greatly felt in the economic life of the villages.

Finance is also an important indicator of central functions. Different branches of financial organisations like, the Cooperative Society, the Gramin Banks, the United Banks, the Central Banks, the State Banks are present in the rural service centres. The Cooperative Societies have developed in the rural areas for helping the farmers in the agricultural work. It is mainly called "Samabaya Krishi Unnayan Sangstha" (Cooperative Agriculrural Development Society). The Gramin Bank also functions in the rural areas. Its main activity is to provide financial assistance to the rural agricultural population and its capacity of financing is higher than the Cooperative Societies. One of its major functions is to encourage small savings among the rural communities which is considered to be of great help in stabilising the rural economy. Almost similar roles are played by the United Banks and the Central Banks which help issuing agricultural and business loans to the farmers and non-farming workers. The branches of these banks, wherever present, take a very active role in reorganising as well as

uplifting the rural economy. It is important to note that there are only a few branches of the State Bank operating in the rural areas. Thus the presence of these financing organs by way of upgrading the economic status of the villages has directly contributed to the improvement of the hierarchical positions of the rural settlements.

The industries which are present in the rural areas of North Bengal are mainly small scale and cottage industry, having an important role in the economic viability of the villages. Generally agro-based, most of them have a traditional basis, fabricating multifarious products of daily use, some of which for their quality find markets even outside the region. In order to keep them alive and thriving, the Government offers loans to the village industries through the District Industrial Office and the Industrial Extension Officer of the Panchayat office. The very importance of the industrial units make them one of the criteria for determining the settlement hierarchy.

The educational institutions is also another important indicator of a service centre boosting up the hierarchical position of a place where it is situated. In most of the villages there are primary schools. Its influence is felt in the rural areas in improving the educational level of the population. The Junior High Schools are found in many villages while the High Schools and High Madrasa are generally confined to the large village centres, the latter enjoying greater accessibility from the surrounding villages.

One, however, cannot expect the colleges whether technical or otherwise to be established in a village and this is far more true about the university. But, the only Medical College and the University of the region are located in the rural areas closely adjacent to urban centres since the latter, being too cramped for space, could not offer any space for them. Villages with educational institutes naturally serve the surrounding smaller villages wherefrom students commute daily to the institutes.

Medical service is an important service offered by the villages where this is present. The Primary Health Centre is generally found in police station headquarters. In many cases the family planning centres are also found to be attached with the primary health centres. Subsidiary health centres are also found in the large villages which are generally accessible from the surrounding villages. Sub centres are also found in such villages. In some small villages charitable dispensaries have grown up. Hospitals are generally confined to the urban areas, but they are present in the tea garden settlements for the treatment of the tea garden residents alone. Besides the tea garden hospitals, there is only one hospital situated in the rural areas i.e. the Medical College Hospital situated in Kawakhali village, offering its service to a very wide area of the region. It is an important indicator of the settlement hierarchy.

Transportation takes an important part for the settlement in offering services to the surrounding population. Settlements which have transportation facility gradually develop into service

centres, the former gradually giving rise to various types of services at such places. Bus and train form the most important mode of transport in this region. Though villages connected by the railway are not many, the bus service links up a large number of the rural settlements of this region. The only air port is also located in the rural area, 13 kms away from Siliguri town.

In the rural areas of North Bengal, recreation facilities are not available in general. In some villages, however, there are cinema halls, constituting a very important service offered by the villages to the neighbouring population.

In determining the hierarchy of rural service centres, the electrification of villages is omitted because from the information available from the State Electricity Board, it is found that the villages through which the electric line has passed are taken as electrified villages though in actual practice electric connection is not given to the village homes.

Score values for different categories of functions or services available in the rural areas are given according to the importance of the functions. On the basis of the total score values of the services offered by the settlements, five settlement orders may be worked out. The settlements which have a total score value of 1 to 10 have been taken as the first order settlements, with 11 to 25 score values as second order settlements, with 26 to 50 points as the third order settlements, with 51 to 100 points as the fourth order settlements and with a score value of 100 and above as the fifth order settlements. There are a large number of villages ~~which~~

numbering about 2,751, which do not fall into the hierarchical order of settlements because no central functions have developed so far in any of these settlements.

The hierarchical order of settlements based on their functional importance further indicates that though all the settlements are rural in character, they differ widely so far as their functional performance is concerned. This further brings to light that, settlements belonging to different functional categories or orders are neither equal in number nor uniformly distributed. Taking all the rural settlements into consideration on the basis of functional order it is found that there is a wide disparity in the total number under each order. Out of 7,179 settlements while 2,751 settlements do not belong to any hierarchical order, 4,135 belong to the first order, 205 to the second order, 56 and 26 to the third and the fourth order respectively and only 6 to the fifth order. Thus the number of the lower order settlements is extremely high keeping no proportional relationship whatsoever to the number of the immediately higher order settlements. The number of settlements decreases rather unevenly as the order of settlement becomes higher. It is true that one second order settlement serves a number of first order settlements, a third order settlement serves quite a few second order settlements, and so on, but as yet no ratio has evolved between the different orders in their number which clearly speaks of the ununiform development of the rural area.

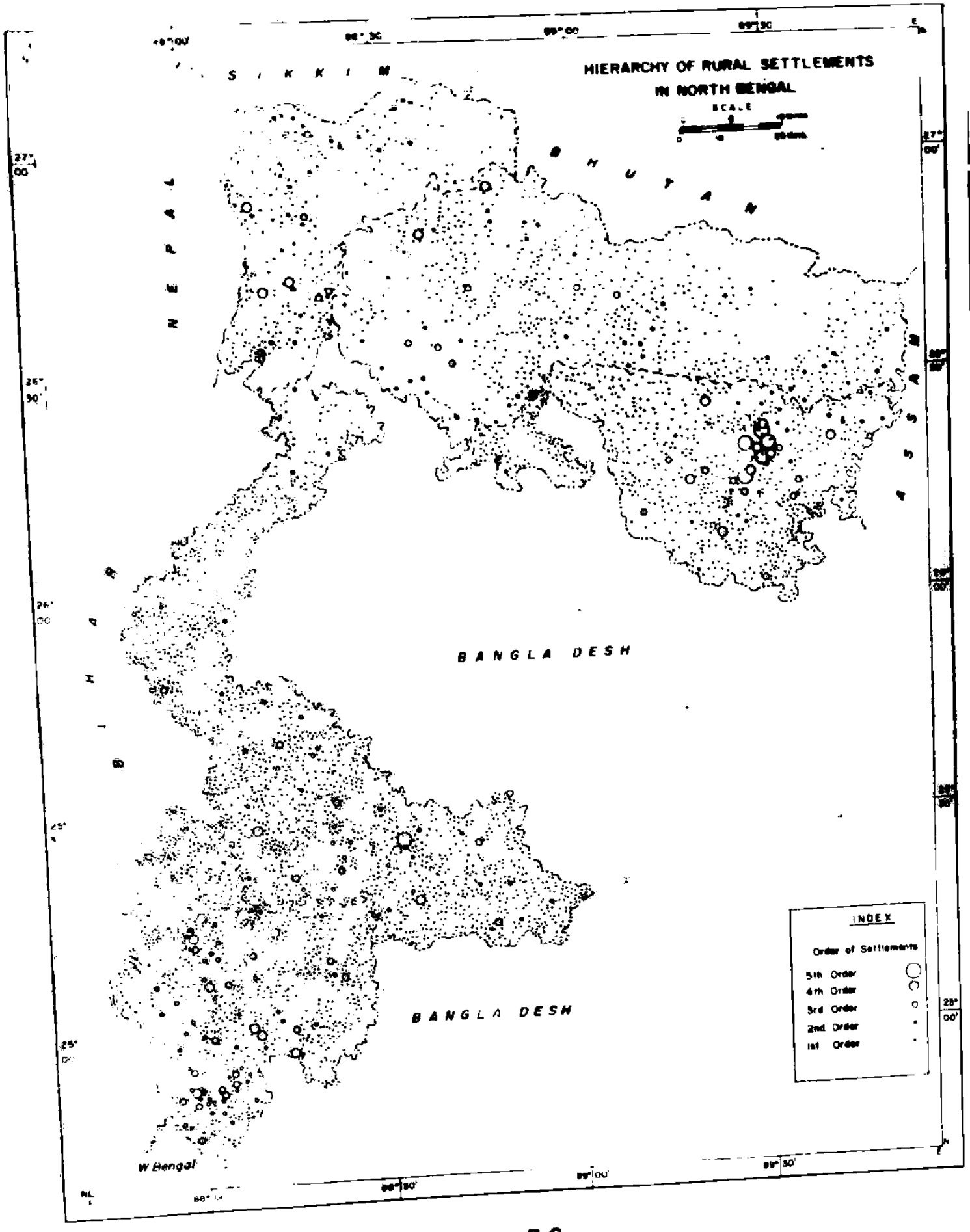
HIERARCHY OF RURAL SETTLEMENTS
IN NORTH BENGAL
SCALE
S I K K I M
N E P A L
B H U T A N
BANGLA DESH
BANGLA DESH
W Bengal
INDEX
Order of Settlements
5th Order
4th Order
3rd Order
2nd Order
1st Order

Fig 36

Spatial Distribution

The spatial distribution of the different order of settlements vary widely in the region, bringing out the existing variation in the availability of services. Such variation is also observed between the five districts of the region, thereby indicating the economic condition of the settlements situated therein (Fig.36). The following table shows the distribution of the settlements belonging to different hierarchical orders in North Bengal.

Table - 55

District-wise Distribution of settlements of Different Hierarchical orders.

| Name of the District | Total number of inhabited villages | Number of the order of settlements | | | | | |
|---|---|---|---|---|---|---|---|
| | | 1st order | 2nd order | 3rd order | 4th order | 5th order | Total |
| Darjeeling | 507 | 300 | 36 | 10 | 3 | - | 349 |
| Jalpaiguri | 744 | 644 | 44 | 7 | 2 | - | 697 |
| Cooch Behar | 1144 | 764 | 27 | 12 | 8 | 5 | 816 |
| West Dinajpur | 3173 | 1513 | 36 | 9 | 3 | 1 | 1562 |
| Malda | 1611 | 914 | 62 | 18 | 10 | | 1004 |
| North Bengal | 7179 | 4135 | 205 | 56 | 26 | 6 | 4428 |

The overwhelming predominance of the first order settlements clearly expresses the overall poverty of the rural area where settlements of higher service order are quite few and far between. The abject economic as well as social backwardness is vividly

reflected in the fact that over 40 percent of the settlements have no servicing capacity. In the district of Darjeeling the number of higher order settlements is small and fifth order settlements are entirely absent. The number of rural service centre is very small in this district because four urban centres (district and sub-divisional headquarters) are situated in four economically developed police stations. Most of the service amenities are concentrated in the urban centres, as a result of which the fourth and fifth order settlements are not found in these police stations. Each urban centre encompasses a large area, the latter obtaining services from the respective urban centres. On the other hand the three fourth order settlements have developed in Naxalberi and Mirik police stations. The remaining part of the district has merely first order settlements meeting the small needs of the rural population.

In the district of Jalpaiguri, settlements from the first order to the fourth order have developed and there is also no fifth order settlements. The percentage of second, third and fourth order settlements is extremely low in this district, even in comparison to the district of Darjeeling. The first order settlements are, however, more than double in this district than in the former, the third order settlements have developed in Dhupguri, Jalpaiguri and Mal Police stations and the fourth order settlements are confined to Mal and Mitiali police stations.

In the district of Cooch Behar settlements from the first order to the fifth order are found, the latter being the highest

in number in this district. They are concentrated in the Kotowali police station of the district.

In the districts of West Dinajpur and Malda different order of settlements have developed all over the countryside. The number of settlement decreases with increasing order. In West Dinajpur there is only one fifth order settlement which is again absent in the district of Malda.

The villages which have minimum amenities and services for serving the surrounding rural population and the population of their own, rank in the first order in the settlement hierarchy and have no defined location. In comparison, the second, the third and the fourth order settlements and also the fifth order settlements have taken rise in the areas where transportation is more developed. It is not difficult to understand that the transportation and communication facilities available in such areas have greater pull in attracting different types of institutions offering services to the surrounding population in many ways.

The distribution and spacing of different orders of settlements are influenced by the geographical and economic conditions of the region. The spacing of service centres varies widely in the five districts of North Bengal, being in close harmoney with the variation of the physicaland economic conditions of these districts. The following table shows the spacing of service centres in North Bengal.

Table - 56

Spacing of service centres in the Districts of North Bengal.

| Name of the District | Spacing of Service Centres (in Kms) | | | | |
|---|---|---|---|---|---|
| | 1st order | 2nd order | 3rd order | 4th order | 5th order |
| Darjeeling | 3.20 | 4.86 | 11.39 | 14.46 | |
| Jalpaiguri | 2.30 | 6.53 | 8.70 | 19.46 | |
| Cooch Behar | 0.96 | 5.35 | 9.22 | 10.37 | 4.74 |
| West Dinajpur | 1.54 | 5.89 | 11.78 | 14.34 | |
| Malda | 1.66 | 5.12 | 6.91 | 8.06 | |
| North Bengal | 1.95 | 5.80 | 9.60 | 12.33 | 4.74 |

The average spacing of settlements of different hierarchical orders is far from uniform in the region and this is more conspicuous when the relevant number of the settlements is considered. Thus, while the first order settlements are spaced at an average distance of 1.95 kms, the second order settlements occuring at exactly three times of this distance means that each second order settlement serves at least three first order settlements, and according to this rule the total number of the second order settlements should be at least one third of the total number of the first order settlements. But this is not the case as it appears. Again, the appearance of the third order settlements at 9.6 kms apart and the fourth order at about 13 kms apart seems to be quite intriguing. According to this, for each two second order settlements

there is one third order settlement and for nearly each one-and-a-half in third order settlement there is one fourth order settlement. But this has not happened and the spacing in relation to the second to the fifth order merely indicates the distance measured for each order between the settlements only where they exist. In the region as a whole the spacing of the first order settlements is the widest in the district of Darjeeling, the first order settlements occuring 3 kms apart. The third and fourth order settlements are also more widely spaced in comparison to the other districts of North Bengal. They are spaced 11 kms and 14 kms apart respectively, but the second order settlements are comparatively spaced closely, which is the lowest for the entire region. The first order settlements are very closely spaced in Cooch Behar district. The spacing of this order of settlements is also close in west Dinajpur district, being 0.96 kms and 1.54 kms in Cooch Behar and west Dinajpur respectively. The close spacing of the first order settlements is generally found in the districts where the settlements themselves are closely spaced. The wide spacing of settlements in both Darjeeling and Jalpaiguri districts may be attributed to the physical conditions. In west Dinajpur there is only one fifth order settlement. The spacing of the fifth order settlements is very close in Cooch Behar district which is mainly due to the concentration of handloom industry in the surrounding villages of Cooch Behar township. The handloom industry has upgraded these settlements to the fifth order.

The Functional Character

The hierarchical order of each settlement is determined by the functional character of that particular place. According to the functional character as well as the nature of the services offered by the settlements, they are vertically classified into five orders among which the first order settlements forms the base of the hierarchy.

(a) The First order settlements

The first order settlements, by far the most predominant ones in the rural areas of North Bengal, have a very small range of services to offer. The most common as well as identifying services available from the first order settlements are those offered by the local administrative set-up, the primary schools, in some cases the junior high schools, the post office, the health centre and the cooperative society. The local self government offers services to the villages under its jurisdiction. The activities of this body generally is of a varied nature. Apart from exercising the administrative control, involving the duty of maintaining law and order, it is also a part of its responsibility to see to the general welfare of the rural population. For instance, the administrative body takes upon itself the task of distributing seeds and fertilizers to the small farmers, besides offering advice to the farmers on better techniques of agriculture. The construction of village roads and paths as well as their maintenance constitutes another responsibility of the administrative body.

The primary schools and the junior high schools are directly controlled by the state government. These institues, attracting students from the surrounding area, enhance the importance as well as the social prestige of these centres, making them more advanced than the other rural settlements.

The cooperative societies forming one of the important organs of their functions, play an important role in the rural economy. The societies are generally the "Samabaya Krishi Unnayan Samity" (SKUS). They offer functional help to the small farmers, thereby strengthening the agricultural base of the countryside. The presence of the post office and the health centre naturally has a significant influence in these centres, extending these two important services to a large clientele residing farther away from them. With the presence of the institutions, mentioned above, the first order settlements are in a position to offer basic services to the surrounding rural population, thus establishing a direct link with the neighbouring places which become virtually dependent on them.

(b) The second order settlements.

The second order settlements, wherever present, serve the first order settlements through various institutes developed within the settlements. In some cases these settlements are the police stations headquarters. This administrative status causes different types of government offices to be established in such centres. In general, the post offices of a higher rank with public

call office (telephone) with telegraphic facility also develop. The gram panchayats are also active in these settlements. The primary or subsidiary health centres, the cooperative societies, the primary schools and in some cases, the high schools are some of the most important characteristic features of the second order settlements.

In the administrative setup of the rural areas, the police station headquarters have an important role. A large number of villages are found under its jurisdiction. It generally maintains the law and order within the villages. The activities of the gram panchayats in the various fields, ranging from political and economic to social, make an important feature of the functions of these centres. Such administrative headquaters generally attract various government offices like the Junior Land Reform office, the Block Development office, the office of the sub-Inspector of Schools, in some cases the Public Works Department, the Marketing Office, the Settlement Office, etc. The congregation of so many organs signify the administratige importance of these places and the scope they enjoy in the offering services to a large countryside and thus exercise some sort of control on the activities of the dependent settlements. For instance, the Junior Land Reform Office has a vital role in the distribution of land to the village people for agriculture and homestead purposes. Various problems and tensions which arise among farmers regarding land are solved by this office, the most critical being i.e. the problem of share cropping or "Bhag Chash" which is also solved by this office. Thus, the

villagers are able to solve their problems within the village and can avoid going to the courts situated in the urban areas. The Block Development office looks after the agricultural sector, the panchayat administration, the general rural welfare, etc. The primary and secondary schools help to spread the primary and secondary education in the rural areas often extending the service to distant localities. The poor mass of the villages have to depend on these schools because they have no such means to join the schools lying in the urban areas. These settlements having medical facilities serve the surrounding areas.

(c) The Third Order Settlements.

There are 56 third order settlements in North Bengal. The highest number of them is found in Malda district (18), followed by 12 in Cooch Behar district, 10 in Darjeeling district, 9 in West Dinajpur district and 7 in Jalpaiguri district. In the third order settlements apart from the government offices including the post office, the panchayat, the primary health centre, the cooperative society, the primary schools, the high schools, the bus and the railway stations found in some are the characteristic features of these settlements. The most important features of these settlements, however, are the cottage or small scale industries. The bus and the railway stations provide the necessary transportation facilities and the development of the industrial units indicates the presence of an industrial infrastructure. Besides, in many cases another important identifying feature of these settlements

is the presence of a market. The settlements have developed at many places as local trading centres dealing mainly in agricultural products. Both wholesale and retail businesses are carried on in such markets. The local cottage or small scale industrial products are sold in these markets. The available communication facilities have greatly contributed to the growth of these markets where goods and people from distance villages can arrive on the market days.

(d) The Fourth order settlements.

There are in all 26 fourth order settlements of which Malda district has 10 and Cooch Behar district has 8, the remaining occurring in the districts of Jalpaiguri and West Dinajpur. The settlements ranking fourth in hierarchical order perform all the functions present in the lower order settlements, but many other functions are performed here which are not present in the lower order settlements. Thus, the services offered by this order of settlements other than those of the lower order are the cinema halls, the banks (generally the Central Bank, the United Bank or the Gramin Bank), the rural library, a big railway station and a college. The presence of these different types of functional order attach special importance to these places, taking an important role in the countryside. It is not difficult to imagine the services offered by settlements of this order have a large range, bringing a wide area under the influence of such centres. Beside the specialised functions mentioned above, the settlements have

a number of government, semi-government or private offices established in them. Important among them are the branches set up by the central government, like the Jute Corporation of India, the Central Excise Office, etc. The banks operating in these settlements play an important role in the rural economy. They provide loans to the rural people and through various programmes they are able to stir-up the theme of savings among the rural population, ultimately contributing to the development of the rural economy.

The cinema halls make a significant departure from the otherwise drab scene of the rural life and attract people from considerable distance. The colleges situated in the rural areas have taken a decisive role in making scope of higher education wider among the rural people. The same is true about the rural libraries. In some of the fourth order settlements there are big railway stations in comparison to the stations in the lower order settlements. This particular facility has given rise to large markets in many of the fourth order settlements, such as Samsi, Chanchal, etc. The marketing activity along with its attendant features like the petrol pump, the automobiles and bullock carts, the restaurants and eating places and the jostling crowd give a colourful look to these centres as places of brisk trade.

(e) The Fifth order settlements.

In North Bengal there are only six fifth order settlements, five of them being concentrated in Cooch Behar district alone, and one in west Dinajpur district. The most important factor elevating them to their present position is the concentration of small scale

and cottage industries. If the industries are omitted, these settlements will decline in their status, going down in their hierarchical order to a much lower position. It may thus be said that if there is any identifying element, it is the industry which happens to be the most important functional element of the fifth order places. Except industry the services which are present in these settlements are the gram panchayat, the post office, the school, and in few cases, a cooperative society.

General Considerations.

From the point of view of offering of services and the importance of functions, the fourth order settlements are basically more important among all the rural settlements of North Bengal. It is necessary to note here that the fourth order settlements have the largest range of activities and as such they are not dependent on one or two characteristic functions like those of the fifth order places. The functions which are of fundamental necessity for leading life are present in the fourth order settlements. As a result they are more equipped with a better developed infrastructure for further development as places of activities and this is amply proved in the fact that many of them have already attained semi-urban character.

Besides the rural settlements belonging to the different grades, there are certain other settlements which are quite different from those of the former. These are the settlements where the University, the Medical College, the Engineering college are situated. A settlement has developed pivoting the University in Atharakhai, Nagtichhara, Rangia mouzas. The nature of the settlement is

urban. The presence of the post office and the State Bank along with different academic and non-academic buildings, the residential quarters, the over-head water tanks, the power house, the wide macadamised roads, etc. give the appearance of an urban settlement. The growing complex of this academic centre has been a principal factor in giving rise to a congested settlement around it, already sprawling outward at a fast rate. Different government offices, Gramin Bank, Schools, clubs, library, press, industrial project, small scale industries and retail services have developed in this amorphous mass of human concentration. The university as a centre of higher education and research extends its services to the whole of North Bengal and attracting students and scholars even from outside the state its sphere of influence has already crossed the regional limit. Settlements with such functions cannot therefore be compared with other rural settlements of North Bengal.

The settlement having taken form with the North Bengal Medical College presents another case different from the other rural settlements. The hospital complex with all its different units stand out as a sharp contrast to the surrounding rural environment.

The Government Engineering College situated outside Jalpaiguri town is a separate settlement unit with a post office, State Bank, residential quarters, academic edifices, well-laid roads, etc. within its campus. It presents a sharp difference between the way of life of the campus dwellers and the residents outside the campus. This type of settlements cannot be compared with the other rural settlements of North Bengal.

Relationship between hierarchical order and the house-types.

There is an intimate relationship between the economic status and the hierarchical order of a settlement, the former being mirrored by the standard of living of the population, the true indicator of which is the house type.

The house type actually reveals the living condition of the population. The houses which are found in the first order settlements are generally huts, made of bamboo or mud with thatched roof. This is in true conformity with the economic level of the residents who, mostly belonging to small income groups, have a limited means for a better living conditions.

In the second order settlements though some of the functions are comparatively of a higher order than the first order settlements, the economic difference between the two is not so large. Thus, sharp difference in house types is not found between these settlements though in some cases, the houses made of bricks may be found. In comparison, the difference in the house types is, however, becoming more conspicuous between these and the higher order settlements.

In the third order and the fourth order settlements, for example, apart from houses made of mud, bamboo and timber, brick-walled houses are also found. In some cases, the brick-built houses are found to be two-storeyed. The general economic well-being of these settlements are truely reflected in these better type houses. The establishment of government offices, business

organisations and many other private concerns operating in these centres add to the number of well-built houses. Besides, well-to-do people living in these settlements can afford the construction of such houses, representing an improved environment.

Population and the Hierarchy of Settlements.

The grade or the order of settlements is determined by the services offered by the settlements. The services are likely to have some relationship with the size of the population of any settlement, but in the case of North Bengal there is no relationship between the size of population and the order of settlements. In some cases the population size of the lower order settlement is larger than in the higher order settlements. The following table shows the population size of different hierarchical order in North Bengal.

Table - 57

Hierarchical order and Population size of settlements in North Bengal.

| Name of the Region | Order of settlements | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Population size | | | | | | | | | |
| | 1st order | | 2nd order | | 3rd order | | 4th order | | 5th order | |
| | lowest | highest | lowest | highest | lowest | highest | lowest | highest | lowest | highest |
| North Bengal | 92 | 7,283 | 262 | 38,859 | 94 | 17,826 | 622 | 5,624 | 1,224 | 7,891 |

From the above table it is observed that there is no correlation between the size of the population and the order of the settlement. In general, in the lower order settlements the population size is larger. The range of population of the first order and the third order settlement is much higher. In the case of the first and the third order settlements, the minimum population size is below 100 while the highest population size is found in the second order

settlement, reaching 38,869 in Dabgram mouza of Rajganj Police Station of Jalpaiguri district. This particular case is explainable in view of the fact that the Dabgram mouza today forms an integral part of Siliguri town. The population explosion of this town, taking place especially between the last two decades- when the population rose from 32,480 in 1951 to 136,343 in 1971 - has engulfed the Dabgram mouza where apart from public establishments, thousands of residences have cropped up during the period. In spite of that the mouza has not yet been declared as a part of Siliguri or as a separate town. So the entire population of the mouza is taken as rural. In the third order settlement highest population of 17,826 is found in Sitalkhuchi of Cooch Behar district. It happens to be a police station headquarters with different government offices, schools, health centres, post office and above all, an established regular market in it. All these facilities naturally have given rise to a large population in the centre. The largest size of the first order settlement has a population of 7,283 found in Sultanganj and situated on the National Highway 34, it has developed as a collecting centre for its rich agricultural hinterland. Thus, services offered by a settlement is no criterion for determining the size of the population in the rural areas of North Bengal. There are many other factors which are responsible for the larger concentration of people at many places and one of such factors is the railway station which seems to have given rise to a large population even if it is a lower order settlement. The presence of a weekly or

bi-weekly market is another important factor determining the size of the population, but it is conclusively proved that the service amenities available in a settlement do not have an effective control on the population size.

The Role of Transportation in Settlement Hierarchy.

The transportation plays an important role in the production of the hierarchical system. In North Bengal, generally surface transportation is predominated by the road followed by the railway. Influence of transportation in the development of rural and urban centres is obvious. The roads built during the last three decades or so have given rise to several nodal centres which carry on functions much similar to the urban areas, and gradually they acquire more importance in their activities, assuming urban character. These settlements generally rank high in the hierarchical order of the rural settlements. Places belonging to the lower order in the hierarchy of settlements are not equally favoured with easy transportation as those of the higher order places. Higher order settlements offering a large number of services are generally dependent on the transportation for carrying the services into their service areas. Influence of transportation is highly felt in the development of Birpara, Samsi, Chanchal, Raniranpur, Buniadpur, Balubulchandi, etc. as the leading nodal centres of the region today. Birpara, Samsi and Bulbulchandi are favoured by both the roads and the railways. Birpara is situated at a place with tea gardens around it. It maintains direct

road and railway link with tea gardens meeting their various demands at a growing rate and for this different types of activities are found to be concentrated in this place. The case of Samsi is also interesting. Situated in the midst of a rich agricultural area and connected by the road and railway lines, Samsi has grown up to be a busy market centre engaged in wholesale and retail trade. The latter in turn has attracted various other activities and all these together made way for the establishment of government and semi-government offices, godowns, mills, small scale industries, schools, health centres, college, cinema halls, etc. A regulated market is being constructed at Samsi by the Government of West Bengal. Thus, the transportation facilities have upgraded this market centre into a higher order settlement. Chanchal provides another important example of a large market centre developed on the basis of easy transportation. It is also a police station headquarters. For this reason various government offices have developed here. Besides, due to easy access from the surrounding rural areas primary and high schools, college, health centres, dispensary, cinema hall, etc. have become established here, gradually giving it an urban character. Buniadpur and Hariarampur situated on the state highway are flourishing centres of trade.

Inspite of all these facts it is yet too early to make any definite conclusion in this regard since the present transportation network consisting of the national highway, the state highway, the district roads, etc. is a recent creation and the

large part of the railway line, linking North Bengal with Assam and thus providing a direct linkage between North East India via North Bengal and West India, came into being only in the 50's. The Farrakka Barrage built in 1971 provides another very important link between North Bengal and the southern part of West Bengal. All these roads and railways will have their impact felt more deeply in the coming decades and opening up resources of the hitherto neglected region of the state are sure to exercise a much greater influence on the settlements.

The settlements, which have been taken into consideration for study here, mostly antedate the present transportation set up, and as such in many cases while the influence of the transportation facility has not yet been felt to a greater degree, in others the response to the improved transportation system is just gathering momentum. With more time the settlements taking the advantage of the newly laid roads and the railway lines are likely to adopt a new role, bringing effective changes in the system of the present hierarchical orders.