SUMMARY AND CONCLUSIONS

The main area of study and investigations in this thesis are the patterns of Inter-action and Linkages with reference to movement of men and materials (economic goods). Thus study included a detailed analysis of factors governing rural-urban inter-action apart from study on inter-action and linkages. The spatial role of Shillong Urban Agglomeration in shaping the pattern of inter-action and linkages has also been discussed in this thesis.

After stating the problem of research and hypothesis-objectives were framed. A review of certain geographical works connected with the problems of Inter-action and linkages of different geographers was made in the second chapter. This was done with a view to formulate the methods of research especially useful in such studies. It has been observed that phenomenon of Rural-Urban inter-action is quite complex and the very definition of 'Urban' is changing with the passage of time and the concept of urban generally included environmental considerations. As such, the uniform definition of 'Urban' cannot be found.

Further more, several discipline (apart from Geography) have attempted to study urban-rural problems. Today, the concept of rural and urban are burning questions which echo
in the halls of international seminars and conferences. Every new seminar or conference only adds to the confusion. One wonders, if it is possible to have a consensus between the demographer and sociologist; the geographer and the historian; and the town planner and the administrator, for the city is like a mirror and each person sees in it the image of his own discipline. Non-availability of required data at the desired level was a major handicap and this study is based mainly on field studies.

Next, the Geographical frame work of the study region is outlined (See Chapter-3) as physical factors have direct bearing on the 'spatial' characteristics of rural-urban interaction and linkage pattern. The physiography of the study region is characterised by hills of varying elevations which has restricted the practice of large scale commercial farming and communication net work. This has a direct impact on interaction pattern. The climate of the region is conducive for development but it differs sharply from Brahmaputra Valley, mainly due to its elevation. The rainfall pattern shows great variations. This is so, as the higher part i.e. the central upland zone having east-west alignment renders the rain shadow effect on the area lying to the north. As a result, one experiences the world's highest rainfall at Cherrapunjee (12,033 mm) which is located 50 km south to Shillong. Basically two types of soils are found
in the study region viz. the Red loam soils or hills soils and Old alluvium. The distribution pattern of the soil exhibits potentialities for development of citrus fruit cultivation that can give due impetus to the agro-based industries.

Rural urban composition of the region shows that the urban population has increased substantially in the entire study region. But the major burden of urbanisation has fallen on 'Shillong' town which is the capital city of Meghalaya and head quarters of various Central government agencies such as Assam Rifles, HQs. Eastern Air Command, ICAR, B.S.F., Survey of India, Botanical Survey of India, Zoological Survey of India, Department of Atomic Energy, Central Reserve Police Force; Anthropological Survey of India, NEHU, etc. It was noted that most of the towns in the study region have developed in and around Shillong e.g. 2 out of 4 towns added during 1981 census were near Shillong town. During 1971 census, out of total 5 towns in the study region four were in and around Shillong (including Shillong) Thus, it has, as of today, an agglomeration of six towns (in the study region). This concentrated growth of urbanisation has led to many socio-economic problems in the region. To name a few, they include, Traffic congestion and lack of parking place, (the detailed study of this, has now being taken by the Town and Country planning authority
and are developing a Blue Print to resolve this problem, lack of space for commercial activities, housing shortage, pollution, degradation of environment and so on.

In the fourth chapter - socio-economic factors governing Rural-Urban interaction has been discussed and six indicators were identified for analysis. These indicators include (a) levels of urbanisation (b) distribution of working population (c) state of agriculture (d) industrial development (e) road development, and (f) power development.

Levels of urbanisation was determined by taking percentage of urban population to total population and density of population. The level of urbanisation was very high in East Khasi Hills district, low in Jaintia Hills district and negligible in West Khasi Hills district. A most interesting feature of distribution of working population was that in entire study region the female participation was greater than male in "Cultivators" class. This is in contrast to the rest of the country where male participation in agricultural cultivation is always more than female. This is due to the existing social customs and traditions of the region where female has comparatively more active role in the family both socially and economically.
The state of agriculture in the study region has also been discussed and three indicators viz. size of land holdings, consumption of fertilizer and irrigation were identified – for detailed analysis. The size of the land holdings reflected the economic viability and were classed (the entire land holdings) into three segments i.e. uneconomical (less than one hectare of land), economical (between one hectare to four hectares), and commercial (between four hectares to ten hectares). The data were examined statistically and it was found that the highest variation of land holdings was in the East Khasi Hills district. West Khasi Hills district indicated a minimum variation in the pattern of distribution of land holdings size. And most of the holdings in West Khasi Hills were economical. Similarly the percentage of irrigated area to net area sown and average consumption of fertilizer per hectare of Gross cropped area was considered. It was generally assumed that better irrigation facilities with better fertilizer consumption and less variation in the sizes of land holdings gave far better yields. But the study region had no such correlation with the selected indicators. As such this called for a greater attention of planners and administrators for corrective measures.

The economy of the region was basically agrarian and
it was noted that the region was rich in natural resources and potentialities for development existed. But no significant industrial development had so far taken place in the region. There was no large scale industry in the study region. Hence it was felt and suggested that state should go for industrialisation to keep pace with development. Industrialisation processes should not only consist of setting up of large scale industry but also provide adequate scope for forward and backward linkages by setting up feeder and auxiliary industries. This will provide employment to masses.

Development of transportation and communication facilities are very important, as they are responsible for movement of men and materials. Good communication facilities encourage inter-action and provide linkages for economic development. It was noted that major portion of rural population did not have any all weather (pucca) roads. The need of development of existing roads and construction of new roads are very essential for all round development of the region.

Like roads, power is also a very important element of today's civilization, not to speak of industry alone. Though power was surplus in the region, yet the per capita consumption of power was only 69 kwh as against 154 kwh in
the country as a whole. (Basic statistic of the North-East, NEC, Shillong, 1985). The surplus power of the region is being utilized by other states of North-East, particularly Assam.

In the 5th chapter - the pattern of Rural-Urban interaction has been analysed. Though there is a significant difference between Rural and Urban Sectors of the society yet they are inter-dependent. (Since cities are concentration of people who do not grow their own food and Rural Sector are basically engaged in growing food for all). This characteristic of rural-urban itself leads to Rural-Urban interaction. Thus, it can be noted that surplus production of agriculture, forest, minerals etc. are responsible for interaction. It has also been identified that distance is also an important factor in determining the pattern of interaction. For example, except the Mylliem Community Development Block (CDB), all other CDB's have less than 30% of villages, which are connected by pucca road. This means approximately 70% of rural population have no pucca road. As a result a substantial proportion of rural population do not have transportational facilities to carry their agricultural surplus commodities or to bring agricultural inputs from the urban centres. Such communication isolation not only restricted the interaction but also limited the all round rural development of the region.

Inspite of this, the region has agricultural surplus
in Potato, Orange, Pineapple, Green Ginger, Pears and Plums— which are responsible for the existing scale of interaction. These agricultural produce first come to Shillong and then are transported to various parts of North-East and rest of the country through Gauhati. Thus Shillong acts as a collection centre and Gauhati— which is 103 km away from Shillong in the north, serves as a distribution centre. The scope for further generation of wealth through agriculture cannot be ruled out as the adequate scope and potentialities exists.

Along with agriculture, it has also been observed that minerals such as coal, sillimanite, limestone etc. are also exported to various parts of the country through Shillong. It is suggested that government should make serious attempts to develop such industries which can consume these minerals locally. Economically, it is always sound to export finished or semi-finished products rather than the raw materials where the state becomes looser.

Apart from agriculture and minerals— forest wealth particularly timber is also exported to various parts of the country. Lack of systematic objectives in this regard has resulted large scale deforestation and ecological degradation of environment, particularly of the Shillong area. This is mainly because more than 90% of the forest belongs
to private forest owners. Hence it is the need of the time to formulate a coherent viable forest policy that will not only safeguard the existing forest resources but also maintain the quality of the environment by protecting forests and undertaking a large scale afforestation programme in the study region.

Since Shillong is the most important urban centre of the study region, it plays a primary role in the interaction patterns. It meets the entire demand of rural areas for clothing, day to day necessities, medicines, administrative services, education, financial and other socio-economic purposes, hardware goods, automobile goods, stationery materials, electrical goods etc. All these combines to give an effect to movement of rural people to urban areas.

In the 6th chapter, it has been noted that rural-urban settlements are related to each other with a definite pattern of linkages. Our study shows that people were mostly out of village for buying and selling purposes. Their visit to urban centre is also linked with the income patterns. Income of the family has a positive impact on the use of urban facilities like markets and shopping, credit facilities, education, health and recreation facilities, in the urban areas particularly in Shillong urban agglomeration. The distance has a negative impact on the movement of people.
from urban to rural areas. It was seen that Shillong attracts a number of trips especially of the rich and middle class people. This is because of variety of services offered by Shillong.

For a rural economy to flourish - backward and forward linkages are necessary. One such linkage is the road transport without which neither inputs nor the produce can reach their respective destinations. Thus it is suggested that financing of road transport should get top priority next to agriculture by Banking institutions and co-operative society. But existing distribution pattern of Banking network and co-operative society shows that they are not sufficient to meet the credit needs of rural people.

It is now perhaps appropriate to state our findings. They are:

1. Because of serious communicational handicaps and traditional alienation, the pattern of interaction with reference to commodities and linkages with references to movement of people, do not get adequate and required momentum. As such the region has remained economically backward inspite of its rich mineral resources, closeness to Shillong urban area and better power position.

2. The economy of the region depends on agriculture. Agriculture itself is in a bad shape mainly because
of primitive methods of cultivation and wrong priorities of developmental planning.

3. The distribution pattern of land holdings, consumption pattern of fertilizer and available facilities of irrigation do not exhibit any relationship and calls the attention of the authority for introducing corrective measures.

4. The study region has an uneven growth of urbanisation. Out of three hills district viz. East Khasi Hills, West Khasi Hills and Jaintia Hills districts, the urbanisation has developed only in and around Shillong Urban areas. As out of nine towns in the study region, eight alone are in the East Khasi Hills district. Out of these eight towns, seven are located in and around Shillong Municipality and are collectively known as "Shillong Urban Agglomeration".

5. Because of surplus agricultural commodities viz. Potato, orange, pineapple green ginger and turmeric, pears and plums - the movement of farmers from village to town takes place, which is a vital factor for rural-urban interaction.

6. Shillong acts as a collection centre for surplus agricultural commodities which are graded and packed by the Shillong merchants and retransported to various parts of the country through Guwahati. Thus Guwahati acts as a distribution centre.

7. Because of forest interaction - i.e. constant flow of timber from the study region to other parts of the country - deforestation is taking place very
rapidly and it will have serious environmental implications in the near future.

8. Village level analysis shows that rural areas near the towns are loosing their traditional characteristic rapidly and are largely due to urban influence. On the other hand their cropping pattern is also changing fast from crop cultivation to market gardening.

From the foregoing analysis (see also Chapter 5) it is clear that the pattern of urban influence on the immediate rural areas, are more complex than what is generally expected to be. It has been observed that physical characters have brought contrasting pattern of influence. Besides this Social and Cultural conditions of the rural areas have been instrumental in causing variations of urban influence on them; thereby putting the breaks on proper interactions. The rural areas are also characterised to a large extent by different views on change. In addition to that, these rural areas have shown a gradual increase of non-agricultural workers particularly after Meghalaya attained its statehood in the year 1972 and reorganisation of the districts in 1976-'77.

9. The study region is highly backward with regard to industrial development. It is suggested that some industries may be set up at the study region as export of finished, semi-finished products are more profitable to economy than the export of raw-materials.
10. A rural economy cannot flourish unless the backward and forward linkages necessary to sustain it are adequate. One of the most important linkage is accessibility without which neither inputs nor the produce can reach their destination. Hence it is suggested that the aspect of accessibility in the study region should get the top priority.

11. Along with road-transport, credit facilities are also necessary to develop. This is so, as the existing available credit facilities are very poor and many villages do not have any co-operative society or Bank Branches. Nearly 20% of the C.D. Blocks do not have even a single co-operative society or Bank Branch. As a result, a villager has to walk for a long distance to avail credit facilities - which is not a healthy sign from the angle of economic development.