



**Full Length Research Article**

**RURAL URBAN LINKAGES: A STUDY AROUND NALHATI MUNICIPALITY**

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**ABSTRACT**

The gradual transformation from rural areas to urban areas has been associated with complex dynamic forces. This has resulted in the growth and development of urban centres at the expense of rural areas. It is now widely recognised that there exists an economic, social and environmental interdependence between urban and rural areas. Urban centers became regional market towns and the link between town and country is usually provided by transport. That's why the rural urban linkages have become increasingly important in development literature in the field of urban environmental study. Rural-Urban linkages can be conceptualised as interaction across space (such as flow of people, goods, money, information and wastes) and linkage between sectors (for example, between agriculture, services and manufacturing). In broad term they also include rural activities taking place in urban centers (such as urban agriculture), an activities often classified as urban (such as manufacturing and services) taking place in rural settlement (IIED, 2009). Nalhati was selected as study area which is a junction point and keeps its identity by connecting various places by railway network and state highway. Nalhati town itself has become a resource base and nodal transportation centre in the study area. The surrounding villages were selected taking distance from Nalhati municipality. The major objectives were to emphasize the crucial role played by transportation linkages in shaping such unique rural urban continuum and sectorial diversification in relation to spatial dimension and finally human environment specially their culture, their society and their infrastructural perception which had been greatly influenced by such type of rural urban linkages. The study showed variation among those villages away from Nalhati Municipality and tried to find out the reasons.

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**INTRODUCTION**

Maxwell (1992) defines rural-urban interactions as linkages across space, such as flows of people, goods, money, information, wastes and linkages between sectors, for example between agriculture and services and manufacturing. According to 2001 Census only 8.6% is urban area in Birbhum District. Therefore most of the lands are still within rural sector i.e. beyond ambit urban facilities. In this circumstances it is very urgent to create linkages between the two. The changing land use pattern, changing farming system, patterns of labour force participation, changing demands for infrastructure and pressure on natural resource system social and cultural livelihood, their economy and rural development; all these can be included in the time frame of rural urban linkage explanation. These are of many types of linkages like physical linkages, economic linkages, social linkages, population mobilization linkages etc. (Randonelli, 1985) of

which the authors have selected physical mainly transportation linkages as the basis of the study. Transport may be a medium of any type of cultural communication. In a perfect environment an urban area exists because of rural places. Cities have always provided certain general services that have benefited the surrounding areas. Thus the areas become a growth centre. Distance is not the only factor that causes variation in metropolitan influence on rural areas. Areas lying along the major transportation lanes between major cities and nearby urban centers tend to take on urban patterns more quickly and completely than outlying areas. This demonstrates that urban ecological processes are important to rural social change. This fact is further verified by demographic studies of the outward movement of population from the centered city (Bertrand, 1958). Countries like India where the density of population is very high and poverty levels are also high, class distinction are also prominent particularly in rural areas. That's why cultural diversification is natural phenomena here. But what we have to look is whether there is any other reason apart from the above mentioned reason. The majority of Indian people live in villages where accessibility to modern amenities

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is almost negligible. That's why an educated and wealthy man prefers to live in urban or near urban place that he can access everything for his future generations. The social differences prominent in rural areas are getting blurred due to the urban influences.

### Study area

Nalhati and its surroundings have been selected as study area as it is a main town of this region. It is located in the northern part of Birbhum district and in Rampurhat subdivision and get its identity as municipality area in 2001 and is a class four (iv) census town. People use to go there for administrative purpose and for marketing purpose. So the town is a resource base of the whole region. State Highway 5 is a main communicating road which joins the town with surrounding villages. The study area covers around 40 kms of SH5 having width of 4 kms (fig:1). This northern most part of the Birbhum district is physiographically located within western pleatue of West Bengal. Relative humidity remains very low throughout the year. The particular area gets the identity as dry point zone.

4. To study socio-cultural perception of different villages along SH5 and at distances from it
5. To study the impact of transportation linkages on shaping of demographic profile of the each villages

### MATERIALS AND METHODS

The present work was conducted on the basis of empirical observations and quantitative methods of environmental geography. During prefield period, Google Earth imagery, District Planning Map of NATMO (2001), Census Report (1981-2001) and numerous literatures related to it were obtained. Intensive field survey has been done by conducting door-to-door survey with the help of questionnaires and empirical observations. For primary data collections, the authors have selected *Stratified Purposive Sampling Method*. Villages are selected as per distant from main arterial route, SH5, which are of two types (i) *villages within 2 kms from the road* (ii) *villages away 2 kms from the road*. The authors collected the data from one third of total household. Accessibility index has not been calculated as it will make

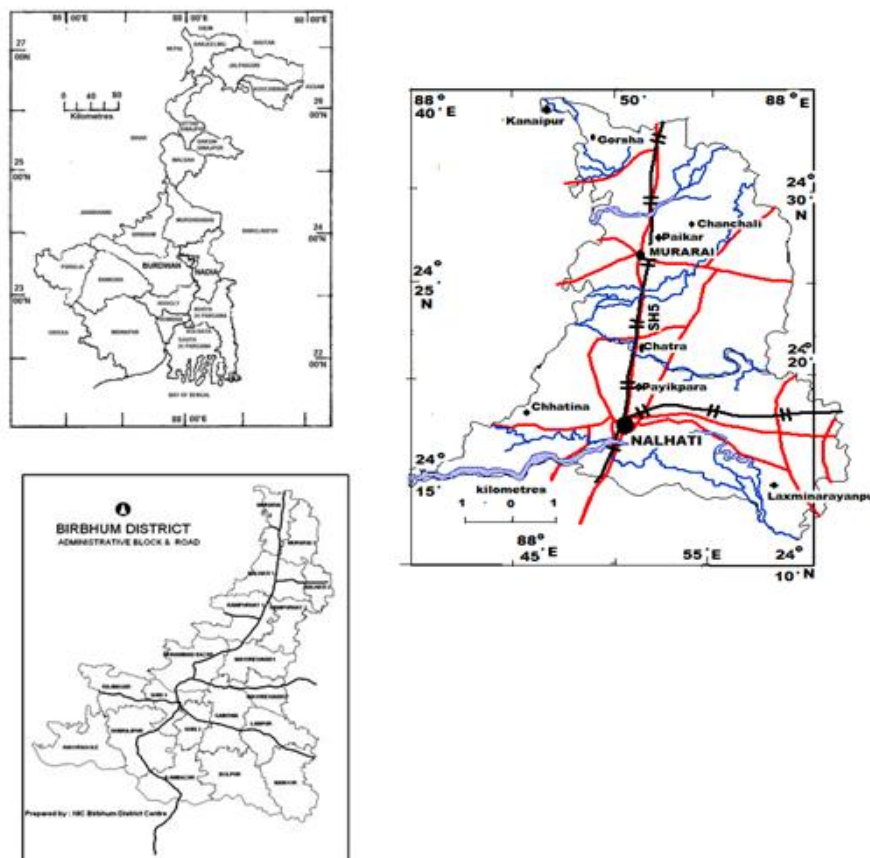


Figure 1. Location Map of the Study Area

### Objectives

The main objectives of the study are

1. To show how the major Rampurhat Murarai connecting way (SH5) has influenced in shaping Nalhati and surrounding continuum
2. To analyse varying quality of life of the villages attached to the SH5 and the villages away from this route
3. To show how sectorial diversification varies with the distance from the main urban nodes.

repetition. They finalised the maps and diagrams with the help of software. Correlation analysis has been done with the help of Pearson's correlation coefficient method. Based on Myrdal's Theory the whole region is being divided on the basis of economic imbalance and urban growth. Region 'A' includes Payikpara, Chatra, Murarai and Paikar of the road side villages which are developed. Region 'B' includes rest of the surrounding backward villages such as Kanaipur, Gorsa, Chanchali, Chhatina, Lakshmi-Narayanpur in terms of distance from SH5. Ground observations and surveys were

done and many photographs were taken to changes occurring in the study area.

**RESULTS AND DISCUSSION**

After that whole empirical survey the authors have found out following results

Work participation rate is a sharp indicator in explaining rural urban linkages which were shown here by different sectors. The bar diagram (fig: 4) depicts respondents of villages along SH5 who had better access to service sectors. People could commute from these villages to Nalhati town easily and for every purpose. They could get access to various sources of income for which diversification were quite prominent here. Although Payikpara village was located very close to the town, showed reverse result. This was because of high irrigation facilities for agriculture and nearness to market for agricultural product. But when we looked into the villages located far from main arterial road we could see people were mainly depended on farming as the agricultural land could not be engulfed by urban sectors (fig.2).

**Sectoral Diversification**

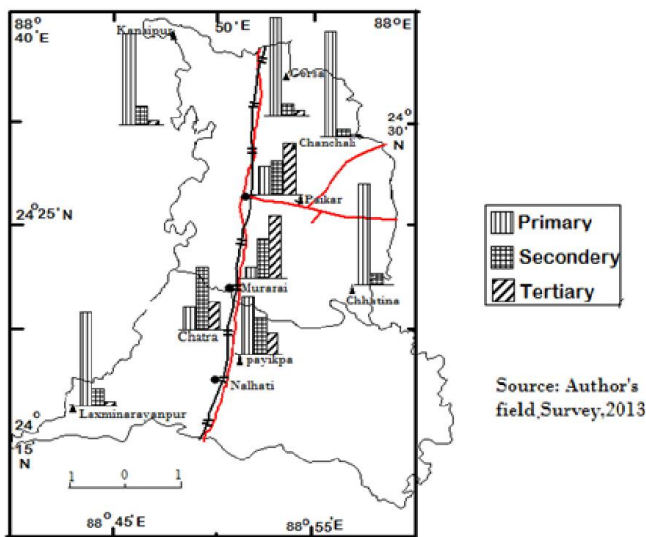


Figure 2.

Rural urban linkages have high impact on quality of life of villagers of every village. This quality of life had been judged on the basis of six parameter viz. monthly income status, distance from high school and hospital, safe drinking water, coverage of pucca road, electricity etc. The villages which were situated within 2 kms from SH5, because of their better connectivity to urban area enjoyed earning through both business and service sectors. As a result those villages had more people with earning greater than Rs.5000/month. The result was quite inverse in case of those villages which were located away from major connecting route. Majority of these villagers are agricultural labour and depend on seasons. Pseudo unemployment was also one of major problem here (fig.3). All the villages when judged on the basis of these two criteria (fig. 4) we found out that they had relatively easier access to education but they were lacking on access to basic health amenities. According to governmental report it had been possible to bring almost every child under school perview. And they were getting books, dresses, mid-day-meal

and other governmental grant annually. But an impartial judgment would show the rate of student drop out was gradually increasing and their attendance in school was seasonal. Tendency to earn money was the major cause behind it. Besides Children and Women were suffering from bowels complaint, intestinal worms diseases and anemia. Although there were weekly health observation facilities of the villages, distant villages were not getting these facilities. It was because of Contemporary rural development planning which helped to establish a high or at least a Madhyamic school within three kilometers from a student's house. So in that situation educational accessibility could not be judged through it. But this was quite impossible to build hospital outside every village. It could only possible where connectivity was in good condition. And the villages which were far from SH5 remain far from health facilities also. The result showed that the villages were more or less well equipped in terms of secure source of drinking water. Local level panchayet had great impact on safe drinking water service of these villages. Chhatina and Lakshminarayanpur showed worse result among these villages may be due to its ground water quality.

**Status of Income**

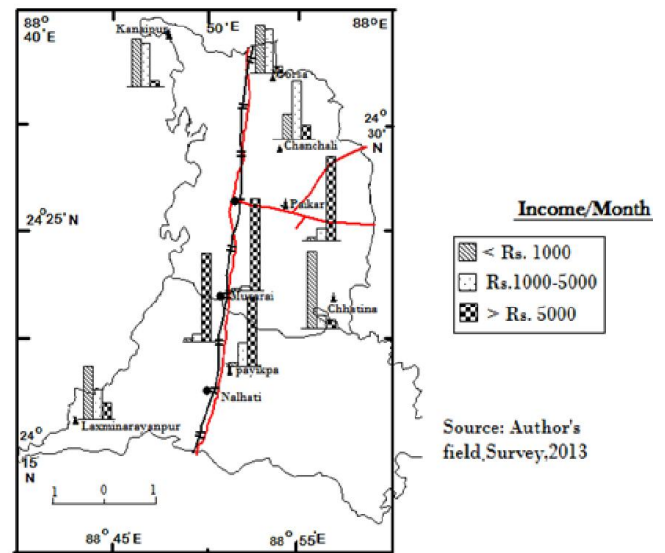


Figure 3.

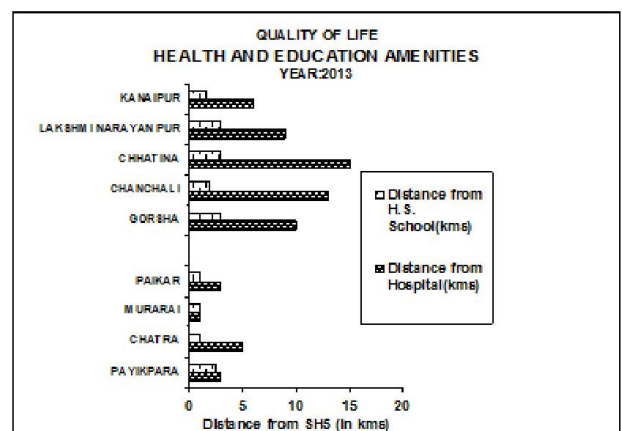


Figure 4.

Construction of pucca road could also be included to judge the quality of life. It became all weather accessible when the roads were constructed by bricks or by pitch. It also reflected the

level of consciousness of the inhabitants and efficiency of local parties. The villages situated away from SH5 they were lacking behind on construction of pucca road. (fig:5) Five parameters had been taken to perceive cultural environment of the study area.(fig:6) These were literacy level, male head of the household; believe in caste, media exposure, religion interference in judicial system

**Quality of Living (Based on Perception Survey)**

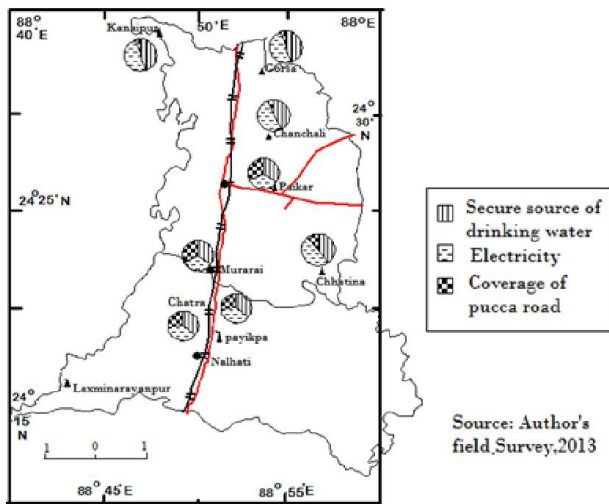


Figure 5.

Difference in literacy level was also very clear when we considered both the region. Early marriage among women and income generation tendency among male population at an early age did create dejection to take education. Poor economic condition was the main factor which did not allow them to take up female education. Male persons were playing as key decision maker of almost every household of the villages situated away from SH5 but in the villages like Chatra, Murarai, Paikar females were comparatively active and conscious and able to protest against male dominance in their household as well as in their society. Castesim was more prominent in the villages away from the town. Belief in caste system especially during their marriage was high in those villages due to lack of social interaction. These villagers preferred to take initial help from *religious gurus* or community leader instead of laws or administrators. Communication problem further created distance between ruler and the sufferer. Due to such poor connectivity and other infrastructural issues the far situating villages were lacking behind in terms of media exposure. The light of internet or even newspaper could not reach in those villages. Illiteracy was again a major cause behind it.

When we looked into the demographic profile of each village (fig.7 tab.2) it sharply indicated that the population density decreases with the increasing distance from SH5. Well connected villages like Murarai, Paikar, Chatra contain large number of population with respect to its area coverage as they were attracted by urban facilities, better infrastructure, well communication, social transformation *etc.* Village to village migration due to better market facility and accessibility was another reason.

**Aspect of Cultural Environment (Based on Perception Survey)**

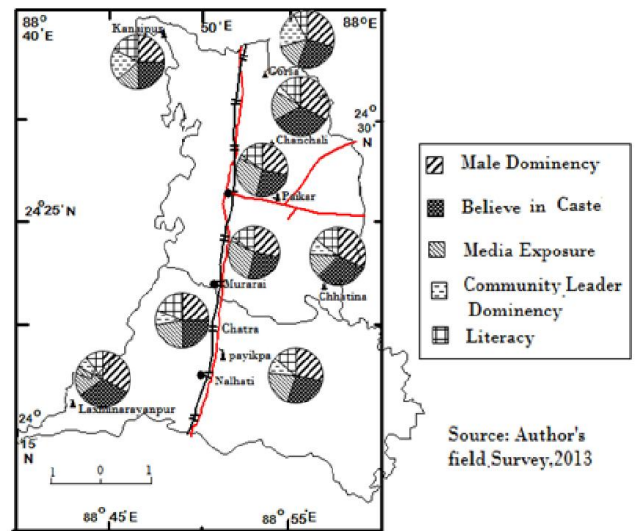


Figure 6.

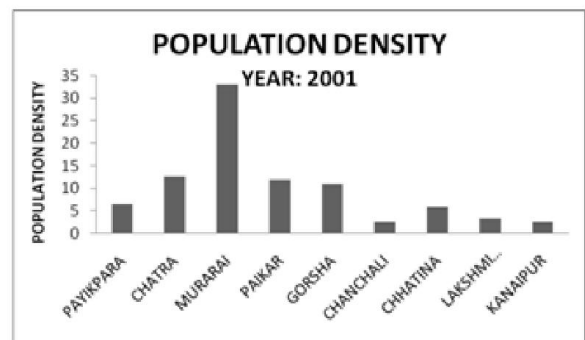


Figure 7.

A relationship between quality of living (considering income above Rs.5000/month, transport accessibility to higher secondary school, transport accessibility to use hospital, coverage of pucca road, electricity, safe drinking water) and distance from SH5 had been established through correlation analysis and it showed negative relationship( $r = -0.88$ ) between these *i.e.* greater the distance from SH5, lower will be the quality of living and vice-versa and the probable causes are already explained.

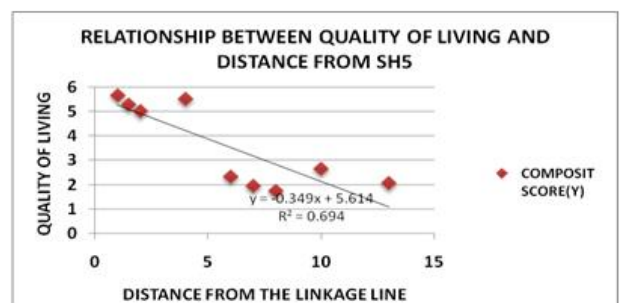


Figure 8.

**Application of Geographical Dualism on Study Area**

Gunnar Myrdal has given a theory of Geographic Dualism in terms of hypothesis of cumulative causation. In the study area main cause of regional inequalities are the strong backwash

Table 1.

Name of The Villages	Income Above Rs.5000/ Month (%)	Transport Accessibility to Higher Secondary School (%)	Transport Accessibility to use Hospital (%)	Coverage of Pucca Road (%)	Electricity (%)	Safe Drinking Water (%)	Distance from Nalhathi (X)	Composit Score/100 (Y)
PAYIKPARA	71	90	85	69	95	91	2	5.01
CHATRA	89	95	83	71	97	93	1.5	5.27
MURARAI	93	95	95	89	98	95	1	5.65
PAIKAR	85	96	91	90	96	94	4	5.52
GORSHA	15	20	2	20	93	84	6	2.34
CHANCHALI	9	11	3	10	75	62	8	1.73
CHHATINA	17	12	7	9	72	59	10	2.66
LAKSHMI	7	14	3	11	84	75	7	1.94
NARAYAN PUR								
KANAIPUR	20	16	9	10	81	71	13	2.07

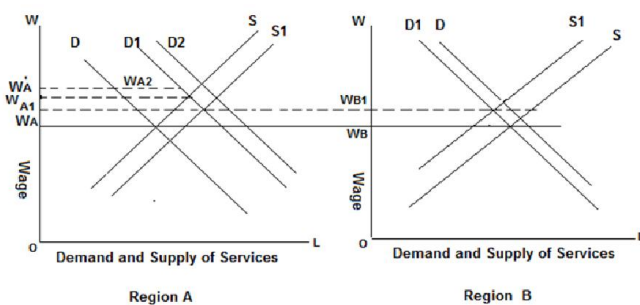
[Source: Primary survey, 2013]

Table 2.

NAME OF VILLAGES	AREA	HOUSEHOLD	POPULATION	DENSITY	MALE	FEMALE	SEX RATIO
PAYIKPARA	1251.9	1605	8109	6.48	4167	4167	1000
CHATRA	168.2	403	2141	12.8	1106	1035	936
MURARAI	141.7	940	4692	33.11	2411	2281	943
PAIKAR	821.5	1940	9720	12	4873	4864	998
GORSHA	513.7	990	5697	11	2849	2848	999
CHANCHALI	299.3	166	786	2.6	393	393	1000
CHHATINA	320	385	19337	6	1000	937	937
LAKSHMINARAYANPUR	141.4	86	481	3.4	272	209	768
KANAIPUR	551	246	1511	2.7	762	749	983

[Source: Census Data, 2001]

Effect (Myrdal,1957) and weak spread effects of an expansionary process of the region. Let us explain Myrdal's idea over the study area. At the beginning when there was no existence of state highway 5 all the villages have attained the same stage of development. Then we came to know that the exogenous and endogenous stimulant from the urban centers produces a disequilibrium situation. It leads to more rapid development in the road side villages. This means that there will be cumulative expansion in the favored region at the expense of other region (p.71, Sarkhel, 2013).



After Myrdal, 1948

Figure 9.

From the above diagram we can interpret that at the initial stage there exist same wage ( $W_A$ ,  $W_B$ ) or same socio economic facilities in both the region. Now we assume that economic and social facilities (stimuli) cause a rise of population in region A. So the demand curve and ( $D_1$ ) and wage curve ( $W_{A1}$ ) are positively sifted. This will induce population migration from region B to region A. on the other hand in region B supply curve ( $S_1$ ) and wage ( $W_{B1}$ ) curve will fall. And the process will be repetition and the initial discrepancy will at least persist or it becomes wider (p.71, Sarkhel, 2013). Here the whole region is divided into two

regions on the basis of development. Where region A can take the urban facilities which easily fulfill the demand of the people of this region. Thus the developed region (region A) achieves the economies of scale a generate services at low investment.

### Recommendations and Conclusion

Nearness to urban centre can change social, economic, political situation of a region or the surroundings. This nearness not only depends on the distance but also depends on communication. Good connectivity may reduce relative distance. A major road linked with main urban center helps to develop the economic condition of villages on both sides of it and also helps to generate political awareness and make them conscious about their fundamental rights. Culture plays a great role in the overall development of a society. Since urban society is enriched with good culture, a rural society becomes cultured when they get contact with urban environment. Sometimes it is seen that uneducated or less educated families reside near the urban areas for earning their livelihood.

The next generations of these families are become educated or well educated for not only increasing opportunity of earning money but also the total infrastructure of education provided by the urban areas. Though society is the mainly responsible factor, people are mainly influenced by tertiary activities they are searching for. Despite of establishment high school within three kilometers, children of poor villages cannot take the opportunity for free of cost. Monetary requirement and family negligence are the major cause behind. Proper education is the main requirement for total development of the study area. Not only illiteracy, when first learner generation disappear a real development will start there. Awareness of people is another most requirement –so that is the only road connected with only one urban centre cannot put as much influence in

developmental process, so connectivity ought to be increased to fulfill the next goal applying various scheme like PMGSY through *panchayet* or local level government. Besides women empowerment we should take care about decentralize process of development that the rural people can achieve various facilities within their natives. So if we can implement the policies in the proper way in those areas far from SH5, whole area will be better linked towards facilities of urban system.

*Few takeaways on the same: rather than treating rural and urban areas separately we should work towards strengthening the linkages that exist already, not merely the reciprocal exchange of unprocessed and processed products. Strong emphasis on handling the urbanization related problems, cultural exchange should be in place; flexible regional policies will lead to global urbanization and modified understanding of urbanization beyond the geographic boundaries will mitigate the gap between rural-urban linkages (Tacoli, 1998).*

From the above analysis we can conclude that SH5 played a crucial role in development of whole region. The social, political and economic linkages between the villages and the municipality are varying with the distance from SH5. Nalhati itself is a resource base of the region. SH5 connect this town to other villages and influence their economic, culture, social, demographic condition. Though the study area is classified on the basis of distance, ultimately they divide themselves on the basis of development. Health, literacy, amenities, culture, religious influence all are varied from one region to another. Well connected villages depicts better educational, cultural, economic environment. So at the end we may conclude connectivity fetches better prospects for urban linkages.

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\*The map scales are in kilometer.

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