



# Critical Analysis of Growth Trend & Growth Pattern of Hill Track: A Study on Khagrachari Hill District, Bangladesh

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**Abstract:** Urbanization in Bangladesh takes the form of rapid growth of urban population, largely due to natural growth and rural-urban migration. Khagrachari, one of the hill track districts of Bangladesh, is located on the south east side of Chittagong division. Khagrachari pourashava is an A category pourashava. This study represents the urban growth pattern and growth trend of the pourashava area. Golabari, mahajanpara, chinginala, pankhaiapara are some historical settlements of khagrachari pourashava. From 1970 to 1990 there was slow urbanization. But in 2000 and it developed in moderate scale and in 2010 the city become more developed. There are some influencing factors as Topographical factors, proximate factor, Political/safety factor which are responsible for the urban growth of the khagrachari pourashava area.

**Keywords:** Urban, Growth Pattern, Trend, Development

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## 1. Introduction

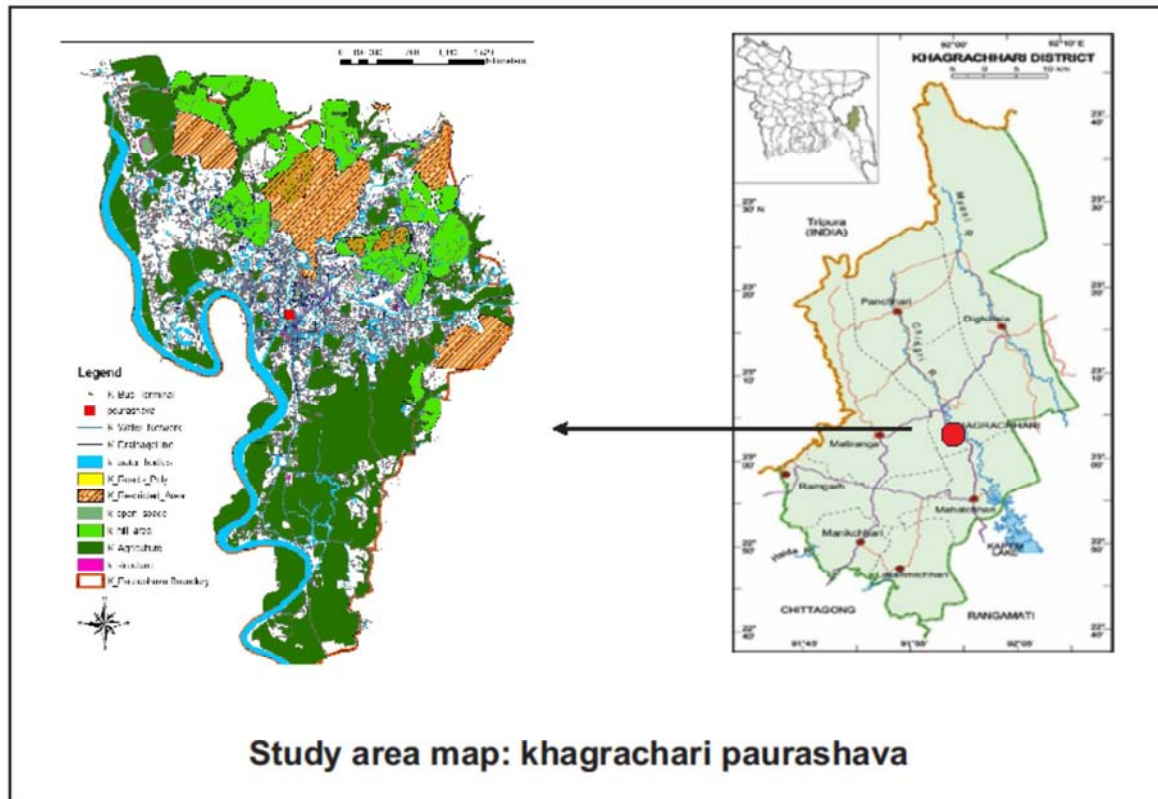
Bangladesh is predominantly a rural country and mostly engaged in agricultural. About one-fifth of Bangladesh's population is urban and the rate of growth of urban has been fairly low. Population explosion, resource scarcity, severe environmental constraints, and lack of technology are some factors responsible for such slow rates of economic growth and increasing poverty [1]. While the government monitors and promotes urbanization and spatial development via allocation of resources. In Bangladesh urbanization process is running rapidly [2]. This process is running in the form of the form of rapid growth of urban population, largely due to natural growth and rural-urban migration. The hierarchy of urban system includes both induced and spontaneous growth centers [3]. Almost 10% of the total area of Bangladesh is occupied by the Chittagong hill tracks. Khagrachari is an important part of the Chittagong hill tracks. Khagrachari pourashava is declared as A category pousrashava [4]. This area is become developed day by day. The present study examines various aspects of urbanization and It analyses a set of relevant spatial data those display variables on population density, degree of urbanization [5]. The study also seeks to examine the growth influential factors and their impacts on development. Khagrachori pourashava may be a potential site

for tourism [6]. The land of this area is more fertile and day by day the amount of fruit garden is increasing. This site may be potential for agro industries. To find out the potentiality of the area we should know the growth direction of the area. The population is increasing day by day which needs more place for development. As a result, the community needs more place, more facilities. But to make the community environmentally habitable, proper planning regulation and management should be considered. The overall objectives of this study are to study urban growth of khagrachari paurashava & to extract the influencing factors of urban growth pattern of khagrachari paurashava.

## 2. Study Area

Khagrachari is a district in south-eastern Bangladesh. It is a part of the Chittagong Division and the Chittagong Hill Tracts. Its local name is "Chengmi". Khagrachari is also known as Phalang Htaung or the Mong Circle (of the rest of the three hill districts Rangamati is the Chakma Circle and Bandarban is the Bohmong Circle). Khagrachari town is the home town of the Mong Chief currently King, Raja Saching Prue Chowdhury who is the head of the Arakanese descendants living in the circle [7]. Total 08 THANA within districts (eight). These are - men headquarters, matiranga, Ramgarh, manikachari, laksnichari, mahalachari, dighinala

municipality around 13.05 sqkm. (Govt. gazate) & 13.98 sq km. [7]. The Population and Rate of literacy is 71,250(UNDP-2010) 71.21percent.



*Figure 1. Study area map.*

### 3. Method

In this study data, has been collected both from primary sources and secondary sources. At first general information, has been collected from pourashava office, BBS and from the expert interview. Necessary map such as land use map, growth trend map is also collected from this office. Then a questionnaire has been conducted among local people to collect their opinion about the growth influencing factors [8, 9,10,11]. The main factors are Population growth, Topographical factor, Proximate factor, Economic factor, Political factor, which are influencing the growth of a city.

## 4. History of Settlement

The Marma community, led by the Mong Chief were originally Burmese settlers who fled Myanmar to escape unrest in the 16th Century. The Mong Chief (Raja) was then one of many Tribal Chiefs who ruled the separate and distinctive clans of the Chittagong Hill Tracts. Rule by tribal chiefs predates the British incursion into India, but the administrative role of the modern Raja was formalised under colonial rule [7]. The British faced strong and effective military opposition to their invasion of the Hill Tracts,

sustaining heavy losses due to the difficulty of the Hill Tracts terrain and the relative power of the Chakma military. Following their victory in 1882, the British neutered this opposition by subdividing the Chittagong Hill Tracts region into three separate Circles the Bohmong, Chakma and Mong Circles. Structured autonomous rule was confirmed in the Chittagong Hill Tracts Act 1900. Today, Khagrachari is a diverse and multi-cultural area, and the Mong Chief provides the services of traditional government to communities of Bengali, Chakma, Marma and Tripura people. The Mong Dynasty can be traced through British records from the 17th Century [2]. The first Chief of the Mong was Raja Kong Joy, who ruled in the 17th century. In 1826, the Prince Kyo Jo Sin became the second Raja at the age of 6. The third Raja succeeded the throne in 1870 and continued his rule until 1879 July 1883, after the death of Raja Nirobhodhi his younger brother the Prince Keeojaprue Sin became the 4th king of the Mong Circle. On his death, his niece Ni-u-mah was installed at the throne as the 5th Raja of the Mong Circle. A ruler from the age of 13, she remains the only woman to have led the Mong Dynasty indeed the only woman Raja to have ruled any Circle in the Chittagong Hill Tracts [3].

In 1984, Raja Paihala Prue Chowdhury, son of former Raja

Ni-u-mah Sin's cousin was appointed as 7th Mong Raja. Raja Paihala Prue was known as a kind, fair and firm Leader, who commanded the respect of Headmen, Karbari and residents [4]. Under his leadership, the Mong Circle started the process of modernization, providing training to the Headmen on their duties and successfully managing the build of 5 new Multi-Purpose Community Centers.

## 5. Urban Growth Analysis

Understanding urban growth and change is critical to city planners and resource managers in these rapidly changing environments. A number of analytical and static urban models have been developed, based on diverse theories such as urban geometry, size relationship between cities, economic functions and social patterns with respect to city structures. A group of local experts, planners, developers, conservationists, and other relevant communities, who have knowledge and experience of the region and urban growth factors were invited to meetings, and interviewed individually to express their opinion in which direction that urban area is going to expand. A spatial analysis method was applied to seek and compare determinants of urban growth pattern in the specific period.

### 5.1. Population & Urban Growth

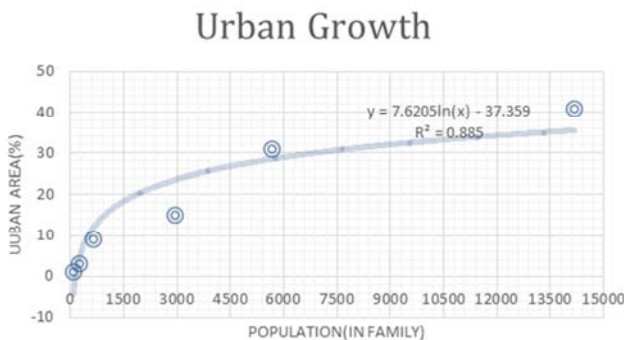


Figure 2. Urban growth of Study area.

Population growth is an important influential factor of urban growth. From the chart day by its population is increasing exponentially. And the urban area is also increasing rationally which is highly positively correlated with the population growth.

### 5.2. Topographical Factors

Khagrachori pourashava area is a flat area which is surrounded by hilly areas. As the provision of town facilities is easier in the flat land than the hilly area, people tend to live in the flat land. For this reason, day by day the central flat area becomes more developed. But at present as the central flat land become more developed people tend to live in the hilly area of north east and north west. Flat land preferable Easy provision of Urban facilities, Circulation system easier, building construction is also easier.

Hill area is preferable for joom cultivation ant it Protect

from lower riparian flood, Protect from dangerous animals.

Urbanization process is running rapidly through the khagrachari municipality. For this rapid urbanization, the amount of forestland is decreasing day by day. But in the hilly area forest land are increasing due to gardening of various fruits, Shal, Segun tree. This increasing rate of fruit garden tends to grow up some growth centers in the hilly area which will affect the urban growth of the municipality.

### 5.3. Proximate Factor

Distance from CBD, Growth center is one of the most influencing factor in Khagrachari. Most of the respondent determine this factor as first choice. Another influencing factor are development along road side and distance from CBD, Major road etc.

#### 5.3.1. Development Along CBD

From the map that most of development has been occurred along the CBD which is considered some area of w8 and w7. As people get their necessary facilities in the Central area they tend to live in the adjacent place of the CBD. From the map, it can be seen word 08, 07, are highly developed which is adjacent to CBD than other wards.

#### 5.3.2. Development Along Road Side

Another important influencing factor is distance to major road. Most of the people determine this factor as 2nd & 4rth choice. Historical Panchari road is an important example. Road is important factor for urban growth. From the map, it can be seen that most of the development occurs along road side. But as the provision of road network in the ward 09 is low, the ward is developing very slowly than other area and for adequate accessibility to the north-east and north-west side, the area is heading to this direction.

Growth center is the focus point of development in this area most of the development occurs around this growth centers. Most of the people prefer to live adjacent to the work place.

### 5.4. Political/Safety Factor

Although political factors are less important for the urbanization of an area, but according to the opinion of different experts of this area, Political factor influences in the growth of the area.

### 5.5. Most Vulnerable Area

Some of the area this municipality is vulnerable for natural hazards. For Flood Ward no. 3 & 9 especially Muslimpara, Ganjapara, Shantinagar and Milonpur. - (Low area & adjacent to Chengi canal) and for Landslide Shalbagan, Kalabagan, Kumilatilla. For River bank erosion, Battali, Khalpar, Rajjomonipara adjacent to Chengi canal; and for Earthquake cum Landslide Bhuachari (Ward no. 9) is most Vulnerable for natural hazard.



## 6. Growth Trend Analysis

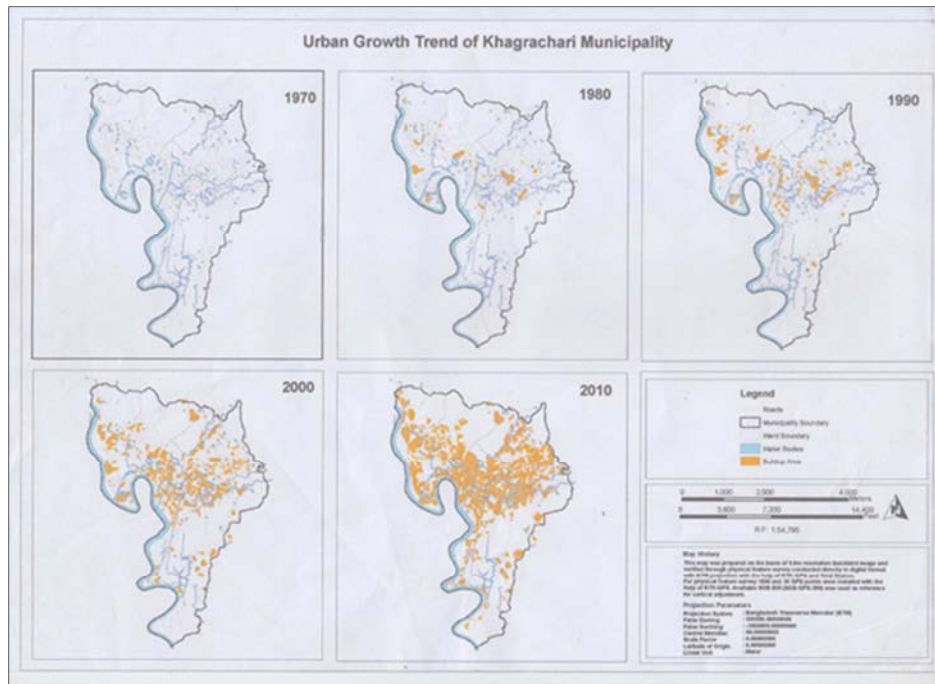


Figure 3. Growth trend of the study area.

Khagrachari is an important part of Chittagong hill tracks. This pourashava is located along Chengi River. Gulabari is the historical settlement of this area which is adjacent to the river. Day by day the adjacent areas become developed. From 1970 to 1990 there was slow urbanization. But in 2000 and it developed in large scale and head to the ward 01, 05, 06 and 08. But in 2010 the city become more developed and most of the area of ward 01, 03, 04, 08, 07 has been developed and small area of ward 09 was developed. From the growth process of the khagrachori it can see that the development before 1985 is occurring around a central point. But after the 1985 the development occurred in scatter form. It can be said that the growth pattern of the area is concentric scatter form.

### 6.1. Potentiality of the Municipality

Embankment or Rubber dam of the Chengi River for tourism, fishery cultivation, irrigation Water land connectivity with other districts. Industries for processing different types of fruits which are national and internationally famous such as Amrapali, Jackfruit, lichu etc.

### 6.2. Extension of the Municipality Area

Proposed extension in the north east, south east and western side of the municipality to distribute better facilities among the poor & worst sufferer of the inhabitants of the lower income people, sufferer from Chemgi khal. Chengi canal is an important canal of khagrachari. It is surrounded by hilly area in the three side and in the west, side the Chengi River is located. As in the west side the river obstacles the

growth, the development is heading towards the north east and North West side. But some experts thought that the city is growing towards the south side.

### Growth direction of khagrachari paurashava

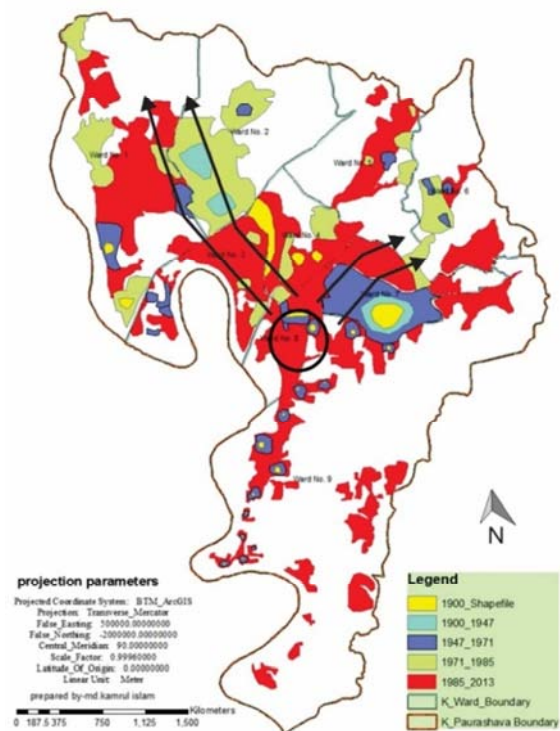


Figure 4. Growth direction of study area.

## 7. Conclusion

Khagrachori is an A category pourashava. Day by day this pourashava is developing and become an economically important place. The area is surrounded by hills in the north and east and south side and Chngi River is located in the west side. As the river is located in the west side and less provision of circulation system in the south side the development is heading to the north east and North West. The development cannot be grown in the central north because of some restricted area. The area is developed in a concentric scatter pattern. The population is increasing day by day which needs more place for development. As a result, the community needs more place, more facilities. But to make the community environmentally habitable, proper planning regulation and management should be considered.

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