



Impact of slum areas in the environment of Silchar town of Assam.

Manali Sinha and Jayashree Borah

Department of Geography, Cotton College, Guwahati, India

Abstract

Silchar is the headquarter of Cachar District in the state of Assam in India. At present it covers an area of 15.75 sq km. With the establishment of several institutes of higher education, ONGC and many other public & semi public organizations in surrounding vicinity of Silchar, urbanization has gained a rapid momentum. This town is also a feeding centre of tea industries of the district and a predominant commercial hub in the southern Assam region. The main problem associated with such a rapid growth in an unplanned way is the high rate of increasing flow of immigrant population from the neighbouring areas and growth of slums in the town. These poor people who rush to the town in search of jobs are employed on low wages and because of the high land value, high rental value and their financial constraints, they accommodate themselves in the public vacant land a low lying areas which are nearer to their places of work. This slowly gives rise to the existence of slums. In the present work the factors affecting the growth of slums in Silchar and their impact on the nearby areas will be studied on the basis of field observation and also secondary information.

Keywords: Slum, formation, quality of life, impact.

1. Introduction

A slum as defined by the United Nations agency UN-HABITAT is a rundown area of city characterized by sub standard housing and squatter and lacking in tenure security. Slums are an integral part of urban centre, whether it is small towns or big cities. In the context of India the urbanization and cropping up of slum areas goes hand in hand. Urbanisation is a process by which the increasing proportion of the population of an area becomes concentrated into the towns and cities. Urbanization is now a dominant factor causing changes in the distribution of world population. And slum is an integral part of this urban process. Slum is a dynamic cycle of population growth opportunities in the cities, poverty with low income, tendency to be closer to work hence occupying land in the vicinity, etc. It is hypothesized that the availability of marginal land and water besides proximity to workplace is a major localizing factor for slums in the cities. Wherever these facilities are available the city planner

could anticipate the slum (Agnihotri, Puspa, 1994).

Quality of life in urban areas is of utmost importance to maintain the natural environment of towns and cities. It is fashionable to talk about global phenomena. They are not aware that it is the environment of their homes which creates the greatest social and most immediate influence on their lives, their health and well being especially in the developing countries (Rahman Atiqur, 1998). A health promoting home and urban environment embodies the fundamental aspiration of the majority of the people where the quality of their lives depends on having a clean decent safe home in which to live and raise a family. In this work an attempt has been made to study the quality of life in the slum areas of Silchar town and its impact in the nearby urban environment.

2. Study area

Silchar is the headquarter of Cachar District in the state of Assam located in North East India. It lies

between 24°30' to 25°15'N latitude and 92°30' to 93°15'E longitude. Present Silchar town covers an area of 15.75 sq. km. In the year 1971 it was 10.00 sq.km and the rest was included in the year 1976-77 and 1983-84 by expanding the Municipal area.

With the establishment of National Institute of Technology, Medical College, Assam University (central), defence establishment, ONGC and many other public & semi-public organizations in surrounding vicinity of Silchar, urbanization has gained a rapid momentum. Silchar is a predominant commercial hub of southern Assam and is also a feeding centre of tea industries of the district. It has not yet experienced any appreciable growth due to poor rail & surface communication. However, with the coming up of promotional agencies, banking facilities and training institutions run by Govt. of India, Silchar has registered a steady growth in small scale industries in private sector. The industries include food product units, wood products, hosiery & garment, etc. Such types of growth and unplanned urban expansion, has lead to growth of slum areas in the city.

3. Objectives

The main objectives of the present work are as follows:-

- to analyse the factors affecting the formation of slum centres
- to study the distribution pattern of the slum areas
- to study the living condition of the people in these areas
- to access the environmental hazards caused by the growth of slums
- to evaluate the developmental aspects of the same

4. Methodology

The entire database has been developed by using data from various sources. For this purpose interpretation of parameters like pattern (layout), population size, etc, has been identified and labeled after detailed ground check. Detailed mapping of a particular slum area has been carried out and database has been prepared with the help of a set of survey schedule. The parameters taken for this case study are individual conditions of houses like roof materials, access to houses, drainage and supply of storage water, electricity and street lightning. Data for the study is drawn mainly from the field study and also from reports issued by the Gazette of Assam & data pertains to 2014. For the analysis, the Silchar Metropolitan Area is selected as a unit. Suitable cartographic

techniques are used to represent the available data.

5. Formation of Slums

The population growth and increase of various activities lead to physical expansion of urban area, along with urban sprawl and slum. However, the type of topography, physical barriers and land use pattern also guide the pattern of population distribution and physical expansion of these areas.

In Silchar, early settlements took place adjacent to railway station at Tarapur, Central road area and Barak river side at Janiganj. Gradually the development started rolling towards Premtala, Hospital Road, Bilpar, Madhurbond and other areas covering 3 sq km. During fifties and sixties new settlement developed in areas of Lakhipur Road, Padmanagar, Subashnagar, College Road, Rangirkhari and Sonai Road. The present picture of development of Silchar (Municipal area 15.75 sq km) towards east, west, south has been the result of urbanization since 1970 to till date. In the year 1971 it was 10 sq km. and the rest was included in the year 1976-77 and 1983-84 within the municipality area. As the town started growing, slums also started cropping up at a rapid pace.

The study of location and distribution of slum areas not only reveals the present spatial pattern and growth of these areas, but also points to the process of physical change of each slum and its impact. Silchar being an important town of the Barak Valley and the gateway to Mizoram, Manipur & Tripura, therefore plays a vital role so far supply of essential commodities of these states are concerned. Given the importance of the town it is clear that the population will continue to increase rapidly in the future. As a result, the poor people who rush to the cities in search of jobs, accommodate themselves in the vacant land of low lying areas which should be nearer to their places of work, thereby slowly giving rise to the existence of slums.

6. Spatial distribution of slums

It has been noticed that in the study region there are certain changes in the land use during different survey period, i.e in 1986-87, 1997-98 and 2000-01. There is an increase in residential, public/semi public and mixed land uses. The less productive agricultural land is being utilized for residential purpose to accommodate the increased burden of population. In road network, some new passages and distributary road have come into being. Over the few years, the town is witnessing a huge influx of people from nearby smaller places. This is due to increasing prospects of other

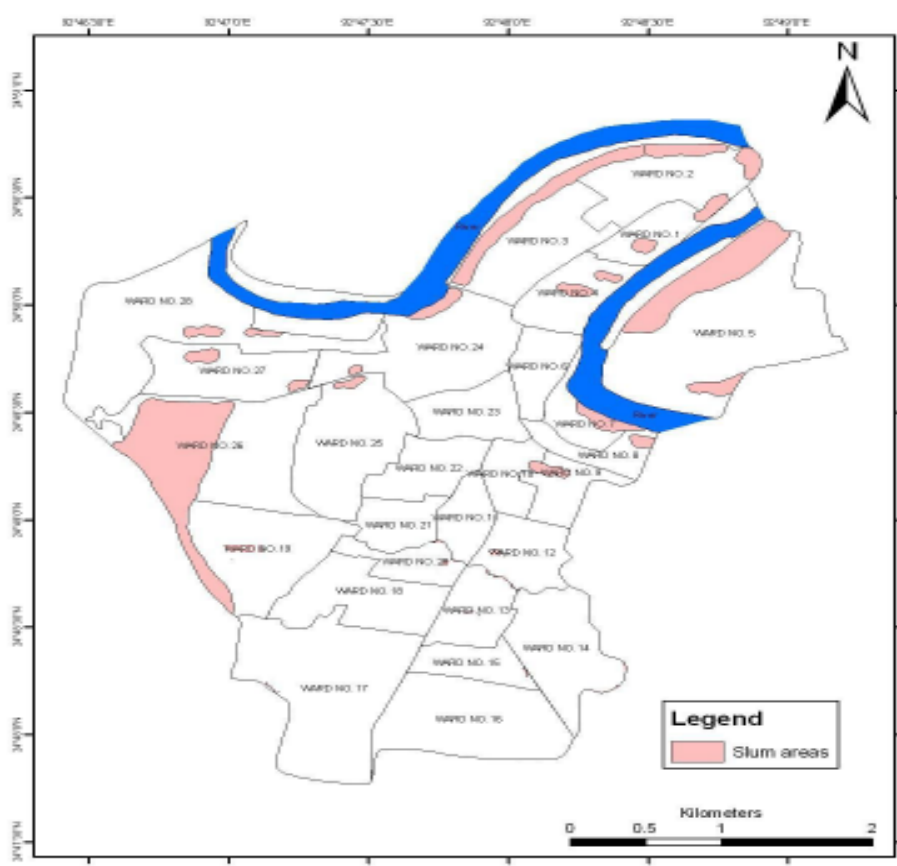
development in the field of education, medical facilities and more recently booming real estate market and other commercial enterprise making the town quite over crowded. The total population of this town was merely 13,000 in the year 1931. By 2011, it has risen to 1,72,709.

According to the National Slum Development Programme by the Silchar Municipal Board, 1997, altogether 43 slum pockets have been identified in different wards of the town (Fig.1). They are found in all the 28 wards except 6, 11, 16, 21, 22 and 23. It is because Ward no.6 is the administrative centre while the other wards are covered by marshy areas, ponds, fallow land, commercial and residential areas. In 1996, there were only 14 slums in the town. Here, the slums were concentrated mainly along the river bank and few in the core areas. On the other hand, the new slum pockets can be found cropping up all

over the town especially in the outskirts. The sampled slum areas have been selected on the basis of their size and their distribution pattern and divided into inner and outer zones. Overall the distribution pattern of slum areas in the town are determined by the following factors,

- availability of open public lands like those of railway, marshy areas, riverbank, road side, etc.
- physiographically disadvantaged areas like Malini Beel (marshy area) and flood affected areas like Idgah Ghat, Itkhola Ghat, etc.
- functional characteristics of different areas like proximity to commercial and residential areas which provides easy access to livelihood. For e.g New Colony is situated near Tarapur which is the central area of Silchar and being a market area and located nearby a railway station provides work in different unorganized sectors.

DISTRIBUTION OF SLUMS IN SILCHAR TOWN (2003)



Source : Town & Country Planning

Fig 1 : Distribution of slums in Silchar town

7. Quality of life

7.1 Housing condition

The condition of shelter reflects the healthy environment of a dwelling unit. It links to the total performance of an individual in both economic and social structure. Housing conditions can be measured in terms of type and size of the house and crowding status. In the present case the classification has been done on the basis of temporary-permanent status and location in the inner or outer areas of the town.

7.1.1 Type of the house

Houses are classified on the basis of their building

materials. In both the cases of permanent-temporary and inner-outer slum areas, it has been found that majority of the slum houses are made of bamboo and tin (Table-1a-b). The houses made of bamboo and tarpaulin are fewer (only 20.1%) in comparison due to its durability. Structures made of brick-tin are also found in both inner-outer and permanent-temporary areas which constitute about 12.5%. Although the percentage is less compared to other house materials, but the dwellers prefer these due to less maintainance cost besides the high bamboo price and problem of regular fixes. The houses in beels are made of bamboo and tin where the floors are made of bamboo too. The analysis has been graphically represented in Fig.2a-b.

Table-1 a-b : Comparison of type of houses in sampled slum areas

1(a)

Type of slum	Type of house			Total
	Brick-tin	Bamboo-tin	Bamboo-tarpaulin	
Inner %	64 12.8%	331 66%	106 21.2%	501 100%
Outer %	11 11.6%	70 73.7%	14 14.7%	95 100%

1(b)

Type of slum	Type of house			Total
	Brick-tin	Bamboo-tin	Bamboo-tarpaulin	
Permanent %	51 12.8%	251 63%	97 24.3%	399 100%
Temporary %	24 12.3%	150 76%	23 11.7%	197 100%

Source: Primary data

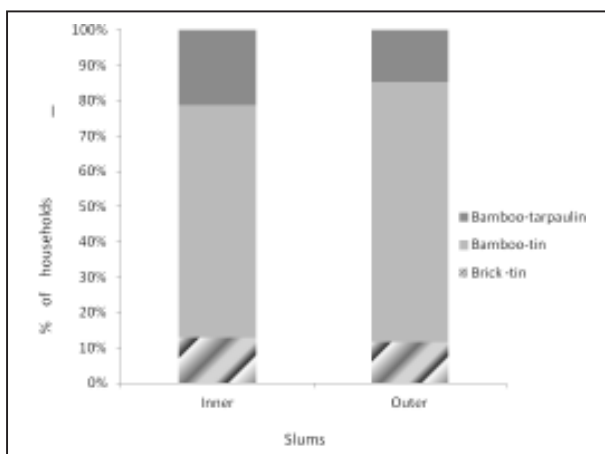


Fig.2(a)

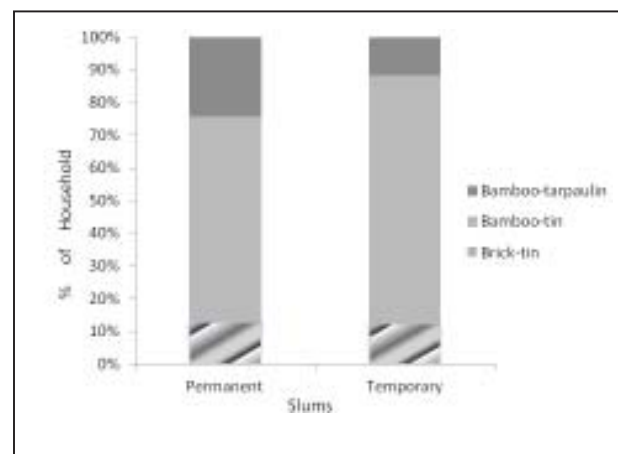


Fig.2(b)

Fig.2a-b: Type of houses in sampled areas.

7.1.2 Size of the house

The size of the houses in Silchar is comparatively bigger than slums in other urban areas where it can be as small as 15sq.ft. Here the smallest size is between 50-90 sq.ft. It is due to availability of vacant land and marshy areas where houses are built over stilts. 31%

of the houses are between 50- 90 sq.ft in all the slum areas (Table-2a-b). The majority of the households are in the range of 90-180 sq.ft in both the permanent and temporary areas. Fig3a-b shows the percentage distribution of sampled households according to floor space.

Table-2a-b: Comparison of size of the household in sampled areas.

2(a)

Type of slum	Size of house (in sq.ft)				Total
	50-90(very small)	90-180(small)	181-270(medium)	>271(large)	
Inner %	167 33.3%	199 39.7%	101 20.2%	34 6.8%	501 100%
Outer %	18 19%	38 40%	29 31%	10 11%	95 100%

2(b)

Type of slum	Size of house (in sq.ft)				Total
	50-90(very small)	90-180(small)	181-270(medium)	>271(large)	
Permanent %	100 29.1%	143 41.7%	78 22.7%	22 6.4%	343 100%
Temporary %	85 33.6%	94 37.1%	52 20.5%	22 8.7%	253 100%

Source: Primary data

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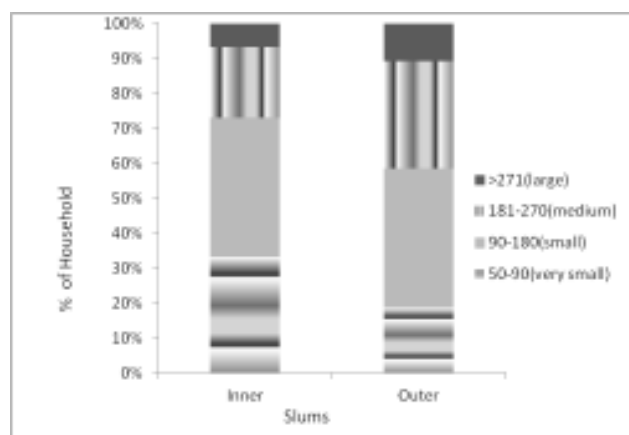


Fig.3(a)

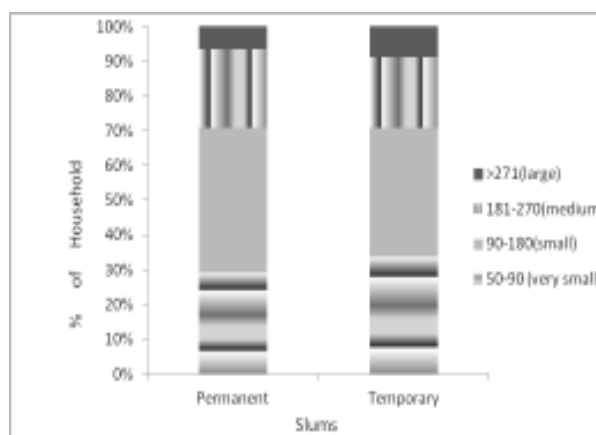


Fig.3(b)

Fig. 3a-b : Size of the house in sampled areas.

7.1.3 Crowding status

Here most of the houses have single rooms. A small part of this room is set aside for cooking purpose. The standard crowding status is one for two persons

but only 9.2% of the total households fall in this criteria (Table-3a-b). That means majority of them are overcrowded. About 66% of the total households have 3-5 persons living in a single room. Fig.4a-b shows

the percentage distribution of sampled household according to the crowding status.

Table-3a-b : Comparison of crowding status in sampled areas.

3 (a)

Type of slum	Crowding status			Total
	<3 persons per room	3-5 persons per room	>5 persons per room	
Inner %	41 8.2%	334 66.7%	126 25.1%	501 100%
Outer %	14 14.7%	59 62.1%	22 23.2%	95 100%

3(b)

Type of slum	Crowding status			Total
	<3 persons per room	3-5 persons per room	>5 persons per room	
Permanent %	41 12%	233 68%	69 20.1%	343 100%
Temporary %	14 5.5%	160 63.2%	79 31.2%	253 100%

Source: Primary data

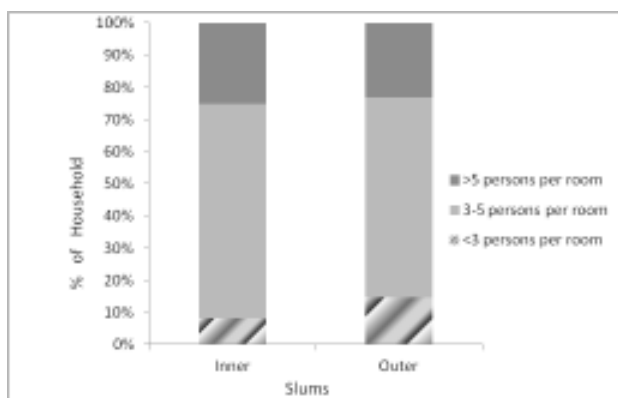


Fig.4(a)

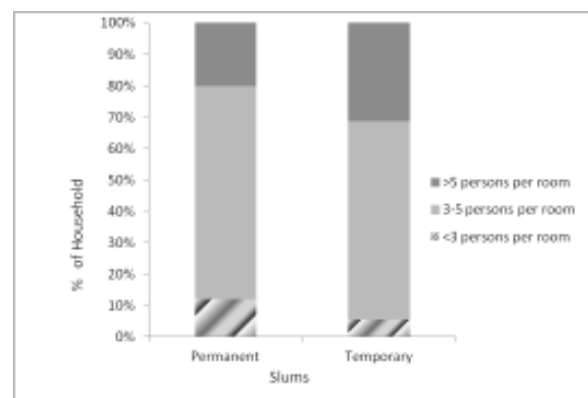


Fig.4(b)

Fig.4a-b: Crowding status of house in sampled areas.

7.1.4 Bathroom & sanitation

Sanitation in these slum areas are the main factor affecting the environment of town. It hampers not only the immediate environment but also the river water and other wetlands. In this part of study two important aspects of sanitation i.e bathroom and toilet facilities of the dwellers have been considered. Lack of sanitation is the only criteria of quality of life that remains more or less the same in both permanent-temporary type of slums in inner and outer areas. Type of toilet is another important aspect which leads

to both land and water pollution as many of these are connected to open drains, rivers and beels. The most pathetic condition in the slums areas is that in some households a single toilet is shared by 4-5 families. Bathroom facility is almost non-existent as the dwellers prefer washing themselves in the river or else make a temporary makeshift where the households are situated far from the water bodies. The most striking feature noticed in the temporary type of slums is that there is only open sanitation with no provision of toilets (Table 4b). Although few

in number but hygienic sanitation in the form of flush septic is found only in the permanent slums. The details of the type of sanitation of the slum areas are shown in Fig.5a-b.

Table-4a-b : Comparison of type of sanitation in sampled household.

4(a)

Type of slum	Type of sanitation			Total
	Open	Septic	Flush septic	
Inner %	413 82.4%	32 6.4%	56 11.2%	501 100%
Outer %	82 86.3%	-	13 13.7%	95 100%

4(b)

Type of slum	Type of sanitation			Total
	Open	Septic	Flush septic	
Permanent %	242 70.6%	32 9.3%	69 20.1%	343 100%
Temporary %	253 100%	-	-	253 100%

Source: Primary data

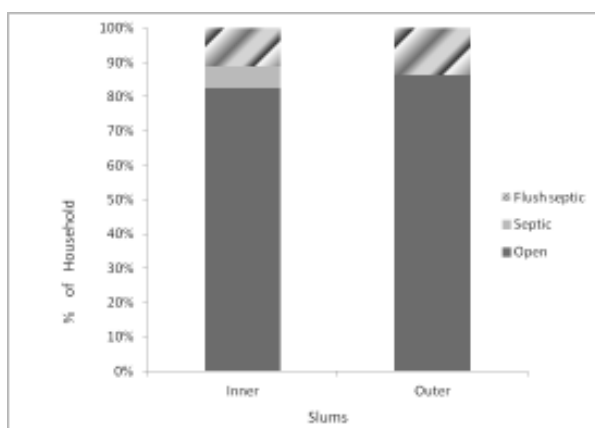


Fig.5(a)

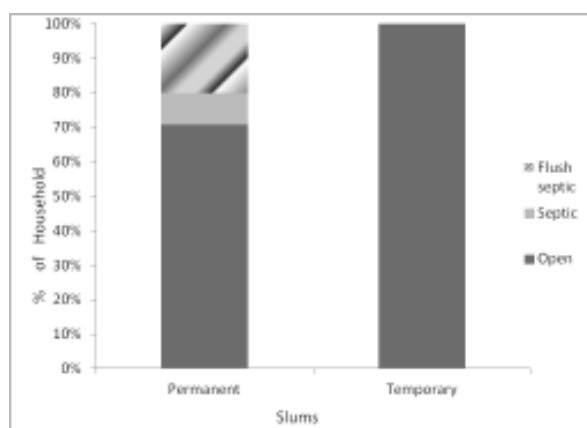


Fig.5(b)

Fig.5a-b: Type of sanitation in sampled household

7.1.5 Water supply

Water scarcity is a common problem faced by the slums dwellers. The temporary slum dwellers are the worst hit because the basic need of water supply is not provided. These areas are situated in railway lands, beels, etc. The dwellers here collect drinking water from public taps and Barak River for washing and bathing

purpose. In the permanent or recognized slum areas, water supply has been provided but the speed is too slow. Some have installed small motors to suck out the water, while in other slum areas public water taps has been installed in the adjacent main road, though it is not sufficient. A large number of families have to share one source of supply in all the surveyed slums.

8. Impact on the urban environment

In Silchar, the present style of development is haphazard and unplanned leading to serious problems for total urban environment like encroachment of the open land, water, air and land pollution and the degradation of natural environment. As the town is attracting more and more people so the problems are magnified day by day. The impact of the slums over the town has been measured on three parameters i.e, environment, economic and social.

8.1 Environment

Land, air and water pollution, encroachment of greenbelt and open land, water logging, blocked drainage, etc, are some of the important problems associated with these slum areas. Here wastes are dumped in the road and along the riverside. Inadequate waste collection and waste management systems are the cause of serious problem of pollution and health hazards. Pollution from urban run off and sewage has adversely affected many water bodies and the river water. There is lack of basic facilities in almost all the slums in terms of drainage and sanitation. These create soil, water and air pollution. The drains are clogged and open while the sanitation is manual. As these slum areas are mostly situated along the river banks and natural beels, the human wastes contaminates the natural environment. No proper waste dumping place means that garbage is thrown near the river banks or into the river and beels. Furthermore, the slum people use the same water from the river and beels for their daily activities like bathing, washing utensils & clothes, etc. This is a serious health hazard.

In the slum areas the sanitation condition is very deplorable as 86% of the sanitation is open. Poor sanitation creates health hazards particularly by direct exposure of faeces and contamination of drinking water in both the slums as well as the neighbouring areas. Furthermore, the drains are open and during the rainy season it overflows and the areas become waterlogged for days together. Slums in Silchar gets affected by flood annually. Slums like Idgah Ghat, Itkhola Ghat, Annapurna, Kalibarichar, etc., lying along the riverside gets inundated by flood water during the rainy season. The affected households have to take refuge in schools. People living in both the slum and the nearby areas suffer from various water borne diseases during this season.

8.2 Economic

The poor financial condition of the slum people is the main source of hurdle to access better living

condition. Majority of the total adult slum population are employed in the unorganized sector like labourers, rickshaw pullers, etc. These people are not able to save their earnings as most of the earning is spent on food, medicines, alcohol, etc. As a result, the conditions remain the same year after year. Child labour is also prevalent. They are basically employed in the unorganised sector. The girls and women are made to do domestic work while the boys get involved in small eateries where they are made to wash dishes or serve the customers. The total workforce involved in the unorganized sector is 61.5%. The urban population is dependent on this workforce of the unorganized sector since most of their daily needs are fulfilled by them. In Silchar, as the public transport is not fully developed, people depend on rickshaws and these rickshaw pullers mostly reside in the slum areas. Even the households in the residential areas are dependent on the domestic help from the women of the slum areas. Most of the women workforce works as domestic helpers for a rate of Rs.500/- per month. Among the workforce, 18.5% are self employed who are vendors or who owns roadside food stalls. Persons who are little more qualified are in the organized sector and constitute 20% of the total workforce.

8.3 Social

Although no direct relationship can be established between the number of cases registered in police stations and the location of slums and squatter settlements, yet these areas are generally considered as the hiding places for many offenders and criminals. It is very difficult to get information on crimes and criminals through direct interviewing. Therefore, a few persons residing near these settlements were interviewed to know their opinion. They all consider these slums and squatter settlements as dens of petty criminals. Crimes like theft are common here supposedly caused by some persons living in these areas. However, such complaints were not made during the primary survey against the poor living in non slum areas. Besides, crimes like murder and robbery along with addiction to alcohol and drugs, prostitution, etc., are also quite common here. These are deteriorating the social environment of some parts of the town.

9. Findings & conclusions

Slums are an integral part of urbanization, which leaves an impact on the physical as well as the social and economic environment of an urban centre. As the Silchar town started developing and

working avenues increased, slum pockets also started cropping up. The slum growth was initially accelerated by the pull factors, but however later on both push and pull factors started attributing. The location of a slum area is determined by open public spaces and nearness to work. Large open space equals to larger slum area as it will accommodate more people.

The main impact of slum area over the town is on the natural environment and economic sphere. Accessibility to cheap workforce is a boon for the commercial establishments, constructions, domestic workers, etc. From the total workforce of the sampled area, about 61.5% are employed in the unorganized sector while only 20% are in organized sector and 18.5% are self employed.

Slum development projects have not been initialised at a great scale till now. Some programmes have been implemented like National Slum Development Programme and Swarnajyoti Sahari Rojgar Yojana for urban poor by the Silchar Municipality Board. The municipality board has done

work on basic amenities like construction of concrete drains and roads, water supply and street lights. The fund for this also comes from the MPLAD. Other than this, there are community self help groups in each area who undertakes miscellaneous work.

Observing all the facts, it can be said that rural development is necessary to check the flow of the job seekers to the urban centre. Besides this, the slum improvement plan and programmes should be implemented properly. The urgent need of the hour is to improve the living conditions of these areas. No residential blocks have been constructed in the town yet to rehabilitate the slum people. The rate of urbanization is haphazard and not conducive for future growth. This would further create a problem in the near future. A proper survey and scientific zonation of Silchar Town is also required considering its growing importance as the busiest urban centre of Barak Valley and gateway to Mizoram, Manipur & Tripura. Slums are also a part of the urban environment, and development of it means an overall development of the town as well.

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