

## THE CRISIS OF SPACE FOR LIVING IN THE SLUMS: A Case of Siliguri Municipal Corporation Area

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### Article History

Received : 14 April 2020

Revised : 20 April 2020

Accepted : 16 June 2020

Published : 15 September 2020

### Key words

Living conditions; slum dwellers;  
Inner slum; Outer slum; Siliguri  
Municipal Corporation, space.

### ABSTRACT

Slum area is an area marked by deprivation of various necessities of life and basic amenities required for good living condition. “Space” for living is a crisis in most of the cities in India and the world and the slums in cities of the developing countries are the worst affected. The paper reveals the crisis of space for living in the slums of Siliguri Municipal Corporation (SMC) area which in turn affects the living condition of the slum dwellers of the area. In order to get a better picture of the crisis of space for living and its impact on the living condition of the slum dwellers the total slum area of SMC has been divided into Inner slum and Outer slum and the housing condition and its impact on living condition of the slum households of this area is studied and an attempt has been made to find out whether the Inner slum dwellers or the Outer slum dwellers are more affected by the space-crisis. The study concludes with suggestion to better the condition of slum dwellers in this regard.

## 1. INTRODUCTION

It is found from various studies that the unabated growth of population in the cities of developing countries without increase in goods and services in the same pace has led to the growth of slums. Various studies also reveal that urbanization in the developing cities attract migrants from neighbouring areas especially the rural areas who in search of jobs come to the cities, they been mostly uneducated or little educated get jobs in the informal sector which earns them meagre income and since

the land prices are high in the cities forces them to settle in the slums. The increase in slum population results in overcrowding in the slum households and thus the lack of space has become a major problem in the slum area. “Space” for living is a crisis in most of the cities in India and the world and the slums in cities of the developing countries are the worst affected. This paper finds the housing condition of the slum dwellers of Siliguri Municipal Corporation area and reveals the crisis of space for living and its impact in the living condition of the slum dwellers. The Total slum area is divided into Inner and Outer slum area and a comparative analysis is done to find in which area the crisis of space for living is high.

This paper begins with a review of related literature. A brief description of Siliguri Municipal Corporation (SMC) area is presented in Section 3.0. The methodology is outlined in Section 4.0. Section 5.0 presents and discusses the empirical findings and results, and Section 6.0 concludes the paper.

## **2. REVIEW OF LITERATURE**

The crisis of space in the slums is evident from the studies on slums of India and the world. Majumdar and Majumdar (1978) pointed out in their study that ‘space’ is the missing factor in the slums of New Delhi. Parekh (1995) in the study of slums of Calcutta Municipal Corporation area finds that the *bustees* (slums) are characterized by overcrowding and congestion. The average number of persons per room is found to be about 3.75. The slum dwellers (about 60 per cent) cooked and lived in the same room and hence there is associated risk of indoor pollution. Each room is inhabited by a family who shared the common latrine. Ghosh (1995) in his study of Bankim Palli bustee in Calcutta finds that the size of the houses is 20 feet in length and 18 feet in width. Most of the houses have one room. The average size of family occupying this one-room house is five to six. There is no ventilation. A small bathroom constructed of mats and gunny bags is added and shared by a number of families. Bhattacharya (1996) in a study of the slums of Kolkata reveals that the highest percentage of slum dwellers lives in the floor area which is less than 50 sq. ft. There is direct correlation between rent and the floor area. Davis (2006) reveals that in Mumbai the typical chawl (75 per cent of the city’s formal housing stock) is a dilapidated, one room rental dwelling. It has a household of six people into 15 square meters; and the latrine is usually shared with six other families. In Lima’s callejones 85 people share a water tap and 93 using the same latrine. In Buenos wood-and-sheet metal inquilinatos houses the poor urban dwellers in a single

inquilinato room, sharing a communal kitchen and bathroom with five or more other families. In Cairo's City of the Dead, one million poor people use Mameluke tombs as prefabricated housing components. Guatemala City's palomares, Rio's avenidas, Buenos Aires's and Santiago's conventillos, Quito's quintas, and Old Havana's cuarterias are in a dilapidated state and hugely overcrowded. In Hong Kong one quarter of a million people live illegally on rooftops or filled-in air wells in the centre of buildings. The "caged men" – "a local term referring to bed spaces for singles, where the 'cage' suggests the tendency of these tenants to erect wire covering for their bed spaces to prevent theft of their belongings; the average number of residents in one of these bed space apartments is 38.3 and the average per capita living space is 19.4 square feet. In Seoul the evicted people from traditional squatter settlements and the unemployed crowded into the 5000 liogbang which rent beds by the day and provide only one toilet per 15 residents. In Grogan, Nairobi, slum houses consist of one-room cardboard shacks. Gupta, Arnold, Lhungdim (2009) find that slums have much poorer housing conditions than non-slum areas in respect of construction material, residential crowding, or ventilation of the dwelling. Gulyani, Talukdar and Jack (2010) in their study of slums in Dakar, Johannesburg, and Nairobi find that slum residents having mean household size (9.6) in Dakar is significantly larger than in Nairobi (3.0) and Johannesburg (3.7). Rahman (2012) in his study of slums in Bangladesh finds that majority of the households in the slum area are less than 100 square feet. The residential densities in the slums are 1000–2500 persons per acre. Pramanik (2013) in his study of squatter settlements in the Siliguri Municipal Corporation finds that the average number of room per households is 2.42 in the inner city and 2.09 in the peripheral city. The average number of person per room is (2.34) in inner city and about 2 in peripheral city. In the inner city 45.83 per cent of households do not have any separate kitchen. 57.50 per cent of the households in the peripheral city have separate kitchen. Phillip and Preamsingh (2014) find in their study that the slum dwellers of slum area of Calicut Corporation live in poor quality and overcrowded houses. Naveed and Anwar (2014) in their study of Jogo Chak slum in Sialkot find that household size is 11–13 members for more than one fourth of total respondents. Pani (2014) reveals that in slums of Bengaluru more than four-fifth of the houses has more than two persons per room and 31 per cent has more than three persons per room. Kamunyori (2016) in the study of Nairobi Slum finds that the slum dwellers live in houses made of plastics and corrugated cardboards, haphazardly built and congested with small structures. Banerjee (2016) in a study of

slums of Kolkata finds that 90 per cent of the migrant families stay in a single room. Majority of the household lacks a kitchen. Uddin (2018) in a study of slums of Chittagong city, Bangladesh finds that more than one room in a single house is rarely found in slum areas. The houses are rented at high prices but are without ventilation.

### **3. A BRIEF PROFILE OF SILIGURI MUNICIPAL CORPORATION AREA**

Siliguri, a city of West Bengal is rapidly growing. Geographically, Siliguri is situated at the latitude of 26.71°N and the longitude of 88.43°E. The city began to grow after India's Independence with huge influx of refugees from East Pakistan due to partition of India and Pakistan. The 1971 war with Pakistan which resulted in the formation of Bangladesh also led to heavy inflow of refugees to the town. Siliguri became the centre of trade between India, Sikkim, Bhutan, Nepal and Tibet. Assam rail link in 1950's made this town a gateway to North-East India. During the last decade (2001–11) the city recorded a net population increase of forty one thousand persons (City Development Plan for Siliguri– 2041, Final Report, Ministry of Urban Development, April 2015). Siliguri acquired the status of a Sub-Divisional town in 1907. It got Municipal status in the year 1950. The Siliguri Municipal Corporation is situated in the Darjeeling district. Siliguri is a unique city as 14 out of 47 wards of Siliguri Municipal Corporation (SMC) falls in the neighbouring Jalpaiguri district and the rest belong to Darjeeling district. Siliguri Municipality got status as a corporation in 1994 (SMC website: <http://www.siligurismc.in/about-us.php> and <http://www.siligurismc.in/history-of-siliguri.php>). Siliguri Municipal Corporation is 42 square kilometres (SMC website:<http://www.siligurismc.in/>).

As per the Census of India 2001, the total population living in Siliguri Municipal Corporation area was 4,72,374 while the slum population was 1,68,214. Thus slum population of this corporation area was 35 per cent of the total population of the Siliguri Municipal Corporation area. The number of slums in this area is 154 (Siliguri Municipal Corporation: “Development, Endeavour and Prospects: 1999–2003”). As of 2013 there are 154 notified and 31 non-notified slums within the corporation boundary. Slums are located along the Mahananda, Fuleshwari, and Jorapani rivers, on railway lands, and in the heart of the city near the railway station. A slum survey (as part of socio-economic survey) conducted by Siliguri Municipal Corporation

finds that the slum population of Siliguri Municipal Corporation (161,876) is 32 per cent of the total population of Siliguri Municipal Corporation 513,264. There are 35,134 slum households (City Development Plan for Siliguri– 2041, Final Report, Ministry of Urban Development, April 2015).

#### **4. METHODOLOGY**

Primary data for the study was collected on the basis of questionnaires prepared to gather the required information. The universe of the study is SMC area. The location of sample study is the slums of SMC area. The sampling procedure adopted is as follows : First, stratified random sampling was used to segregate the total 154 slums of the SMC area as per Census 2001, into slums of Inner and Outer city slums with slum as the sampling unit. Second, four slums from each of the two parts of the city were selected using simple random sampling method. Third, out of four slums of inner city each one was selected purposively from the four corners (North–South–East–West). The same was done in case of outer city slum area. Thus a total of eight slums had been chosen. Fourth, 25 households were chosen using simple random sampling method from each of the eight slums. The unit of observation was the household and the total size of the sample was 200 households. Based on the above methodology four selected Inner slums are: East– Chittaranjan Colony (ward–20), West– Darbhangatola (ward–6), North– Dashrathpally (ward–44) and South– Sarbahara Colony (ward–28) and four selected Outer slums are: East– Amtala Colony (ward–37), West– Kulipara Rajendranagar (ward–1), North– Amtala (ward–41) and South– D.S. Colony (ward–34). The primary survey has been conducted during the period from August 2013 to March 2014.

#### **5. EMPIRICAL FINDINGS**

In the slum area surveyed, the total number of slum dwellers residing in the 200 slum households is 911. The total number of males is 451 and the number of female slum dwellers is 460. Sex– ratio of the slum area surveyed is 1033. The surveyed slum area comprise of 49.5 per cent of male slum dwellers and 50.5 per cent of female slum dwellers.

In the Inner slum part of the surveyed area, the total number of slum dwellers is 434; the number of male slum dwellers is 214 while the number of female slum dwellers is 220. Sex–ratio is 1028. 49.3 per cent male slum dwellers and 50.7 per cent female slum dwellers live in the surveyed slum households of the Inner slum area.

In the Outer slum part of the surveyed area, the total number of slum dwellers is 477; the number of male slum dwellers is 237 while the number of female slum dwellers is 240. Sex-ratio is 1013. 49.7 per cent male slum dwellers and 50.3 per cent female slum dwellers live in the surveyed slum households of the Outer slum area. The proportion of persons living in the slum households in the Western part of both the Inner slum, 30.4 per cent of 434 persons and Outer slum, 31.7 per cent of 477 persons of the surveyed slum area is highest compared to the other three parts (i.e. Eastern, Northern and Southern parts) but the Sex-ratio (965) is lowest in the Western part of both the Inner and Outer slum taken together. Among 200 households in the slum area 76 per cent households live in their own houses, 22.5 per cent live in rented houses and 1.5 per cent live in relative's land. In Inner slum area 76 per cent live in own house, 23 per cent in rented house and one per cent live in relative's land. In Outer slum area 76 per cent live in own house, 22 per cent in rented house and 2 per cent live in relative's land. The ownership status in both the slums is similar.

The houses in the slum area are divided into three types- flimsy (structure made of bamboo, clothes, and plastic), semi-permanent (structure made of wood, some use of concrete, cement and bricks, metals) and permanent (structure made of fully concrete-wall, ceiling and floor). Among 200 households in the slum area 8.5 per cent households have flimsy type houses, 89.5 per cent households have semi-permanent houses and 2 per cent households have permanent houses. The poor financial condition, lack of space and slums been situated in illegally occupied land are causes of major proportion of slum dwellers living in semi-permanent houses. In Inner slum area 12 per cent households live in flimsy type house and 88 per cent in semi-permanent type of house. In Outer slum area 5 per cent live in flimsy type house, 91 per cent in semi-permanent type of house and 4 per cent households have permanent houses. There are permanent houses (4.0 per cent) in Outer slum only. There is higher proportion of flimsy houses (12.0 per cent) in Inner slum in comparison to Outer slum (5.0 per cent). This suggests that housing condition is better in Outer slum compared to Inner slum.

### **5.1. Number of Rooms and Family Size**

The relationship between number of rooms in the house and family size help to determine the overcrowding in the slum household. Table 1 represents family size and number of rooms of the slum dwellers.

**Table 1: Number of Rooms and Family Size**

<i>Slum Type</i>	<i>Family size</i>	<i>Number of rooms</i>			<i>Total</i>
		<i>1</i>	<i>2</i>	<i>&gt;=3</i>	
Inner	1	6 (100)	0 (0.0)	0 (0.0)	6 (100)
		-9.2	0	0	-6
	02-May	51(69.9)	17 (23.3)	5 (6.8)	73 (100)
		-78.5	-60.7	-71.4	-73
	>5	8 (38.1)	11 (52.4)	2 (9.5)	21 (100)
	-12.3	-39.3	-28.6	-21	
	Total	65 (65.0)	28 (28.0)	7 (7.0)	100 (100)
		-100	-100	-100	-100
Outer	1	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
		0	0	0	0
	02-May	44 (59.5)	18 (24.3)	12 (16.2)	74 (100)
		-97.8	-72	-40	-74
	>5	1(3.8)	7 (26.9)	18 (69.2)	26 (100)
	-2.2	-28	-60	-26	
	Total	45 (45.0)	25 (25.0)	30 (30.0)	100 (100)
		-100	-100	-100	-100
Total	1	6 (100)	0 (0.0)	0 (0.0)	6 (100)
		-5.5	0	0	-3
	02-May	95 (64.6)	35 (23.8)	17 (11.6)	147 (100)
		-86.4	-66	-45.9	-73.5
	>5	9 (19.1)	18 (38.3)	20 (42.6)	47 (100)
	-8.2	-34	-54.1	-23.5	
	Total	110 (55.0)	53 (26.5)	37 (18.5)	200 (100)
		-100	-100	-100	-100

*Note:* Figures in the parentheses are in percentage, Source: Field Survey

In Table1 it is found that among 200 slum households 55 per cent households have only 1 room, 26.5 per cent have 2 rooms and 18.5 per cent households have 3 or more rooms. Thus it is noticed that majority of slum households have only one room. The situation is better in Outer slum as 45 per cent households in comparison to Inner slum where 65 per cent households have only one room and similarly 30

per cent households in Outer slum whereas only 7 per cent households in Inner slum have 3 or more rooms. It thus suggests that living condition is better in Outer slum in comparison to Inner slum.

All single member households have only one room. Among 200 households highest proportion 147 (73.5 per cent) households have 2–5 members and majority (64.6 per cent) households in this group have only one room followed by 23.8 per cent that have 2 rooms and 11.6 per cent have 3 or more rooms. Among 47 (23.5 per cent) households that have more than 5 members the highest proportion 42.6 per cent households have 3 or more rooms, 38.3 per cent have 2 rooms and 19.1 per cent have one room. Among the 110 households that have 1 room in highest proportion (86.4 per cent) households 2–5 members reside followed by 8.2 per cent households that have more than 5 members and 5.5 per cent households have only 1 member. In Inner slum among 65 households having 1 room majority (78.5 per cent) of households have 2–5 members followed by 12.3 per cent households have more than 5 members and 9.2 per cent households have 1 member. In Outer slum among 45 households having 1 room the highest proportion (97.8 per cent) households have 2–5 members followed by 2.2 per cent households that have more than 5 members. It thus suggests that the slum area is overcrowded and Inner slum is more overcrowded in comparison to Outer slum. The slum households mostly do not have separate kitchen and such cases are more in Inner slum compared to Outer slum.

## **5.2. Number of Rooms and Monthly Household Income**

Table 2 represents the relationship between monthly household income and number of rooms.

It is noticed that among 200 households the highest proportion of slum households, (47.5 per cent) have monthly household income in the range of Rs. 5001–Rs.10000 followed by 37.5 per cent having monthly household income up to Rs. 5000 and 15 per cent above Rs. 10000. In the monthly household income level of up to Rs.5000 there are 45 per cent households of Inner slum and 30 per cent households of Outer slum whereas in the monthly household income level of above Rs.10000 there are 9 per cent households of Inner slum and 21 per cent households of Outer slum. This gives a picture of better economic condition of Outer slum compared to Inner slum.

In the Total slum (Inner slum and Outer slum) area among the 75 (37.5 per cent) households earning monthly household income up to Rs. 5000 the major

**Table 2: Number of Rooms and Monthly Household Income**

<i>Slum Type</i>	<i>No. of rooms</i>	<i>Monthly Household Income (in Rupees)</i>			<i>Total</i>
		<i>Up to 5000</i>	<i>5001–10000</i>	<i>Above 10000</i>	
Inner	1	34(52.3) (75.6)	29(44.6) (63.0)	2(3.1) (22.2)	65(100) (65.0)
	2	10(35.7) (22.2)	14(50.0) (30.4)	4(14.3) (44.4)	28(100) (28.0)
	>=3	1(14.3) (2.2)	3(42.9) (6.5)	3(42.9) (33.3)	7(100) (7.0)
	Total	45(45.0) (100)	46(46.0) (100)	9(9.0) (100)	100(100) (100)
Outer	1	20(44.4) (66.7)	23(51.1) (46.9)	2(4.4) (9.5)	45(100) (45.0)
	2	7(28.0) (23.3)	11(44.0) (22.4)	7(28.0) (33.3)	25(100) (25.0)
	>=3	3(10.0) (10.0)	15(50.0) (30.6)	12(40.0) (57.1)	30(100) (30.0)
	Total	30(30.0) (100)	49(49.0) (100)	21(21.0) (100)	100(100) (100)
Total	1	54(49.1) (72.0)	52(47.3) (54.7)	4(3.6) (13.3)	110(100) (55.0)
	2	17(32.1) (22.7)	25(47.2) (26.3)	11(20.8) (36.7)	53(100) (26.5)
	>=3	4(10.8) (5.3)	18(48.6) (18.9)	15(40.5) (50.0)	37(100) (18.5)
	Total	75 (37.5) (100.0)	95 (47.5) (100.0)	30 (15.0) (100.0)	200 (100.0) (100.0)

*Note:* Figures in the parentheses are in percentage, Source: Field Survey

proportion (72 per cent) of households have only 1 room to live in, 22.7 per cent have 2 rooms and only 5.3 per cent have 3 or more rooms. Among 95 (47.5 per cent) households earning monthly household income in the range Rs. 5000 – Rs 10,000 the major proportion of households, 54.7 per cent households have only 1 room to live in, 26.3 per cent have 2 rooms and 18.9 per cent have 3 or more rooms. Among the 30 (15 per cent) households earning monthly household income above Rs. 10000

the highest proportion (50 per cent) households have 3 or more rooms to live in followed by 36.7 per cent households that have 2 rooms and 13.3 per cent have 1 room. A direct relationship is noticed between number of rooms in slum households and monthly household income of the households. It is observed that in the income group “up to Rs. 5000”, in Inner slum, 75.6 per cent households whereas in the Outer slum 66.7 per cent live in 1 room and 2.2 per cent households in Inner slum and 10 per cent households in Outer slum live in 3 or more rooms. In the income group “above Rs. 10000”, in Inner slum, 22.2 per cent households whereas in the Outer slum only 9.5 per cent live in 1 room and 33.3 per cent households in Inner slum and 57.1 per cent households in Outer slum live in 3 or more rooms. It thus suggests that living condition is better in Outer slum in comparison to Inner slum. It is found that space crisis is more acute in the Inner slum compared to Outer slum where in Inner slum even among the slum households earning monthly household income above Rs. 10000, 22.2 per cent households have only 1 room whereas in Outer slum the proportion is 9.5 per cent. A direct relationship is also noticed between number of rooms in slum households and monthly household income of the households in Inner and as well as Outer slum and therefore with the increase in monthly household income the number of rooms increases; this relationship is significant at ( $\chi^2=15.234$ ,  $p=0.004$ ) between monthly household income and number of rooms in households in Inner slum, it is significant at ( $\chi^2=18.951$ ,  $p=0.001$ ) in Outer slum and this relationship is highly significant at ( $\chi^2=38.128$ ,  $p<0.001$ ) taking together both the slums.

### 5.3. Migration and Number of Rooms

Among 200 slum households 152 slum households have reported of migration (head of household migrated to the slum area) whereas 48 households are non migrant (head of household was born in the slum area). Among 152 slum households that migrated major proportion (61.8 per cent) of households have migrated up to the year 1990 and 38.2 per cent of households migrated after 1990. Similar situation is noticed in both Inner slum (61.5 per cent among 78 households) and Outer slum (62.2 per cent among 74 households) as majority of households has migrated up to the year 1990. Thus majority slum households are old migrants.

Table 3 represents the relationship between the old migrants (households migrated up to the year 1990), new migrants (households migrated after 1990), non migrant households and number of rooms in the household.

**Table 3: Period of Migration and Number of Rooms**

<i>Slum Type</i>	<i>Period of Migration</i>	<i>Number of Rooms</i>			<i>Total</i>
		<i>1</i>	<i>2</i>	<i>&gt;=3</i>	
Inner	Up to 1990	27(56.3)	15(31.3)	6(12.5)	48(100)
		(41.5)	(53.6)	(85.7)	(48.0)
	After 1990	23(76.7)	7(23.3)	0(0)	30(100)
	(35.4)	(25.0)	(0)	(30.0)	
Non Migrant	15(68.2)	6(27.3)	1(4.5)	22(100)	
	(23.1)	(21.4)	(14.3)	(22.0)	
Total	65(65.0)	28(28.0)	7(7.0)	100(100)	
	(100)	(100)	(100)	(100)	
Outer	Up to 1990	12(26.1)	15(32.6)	19(41.3)	46(100)
		(26.7)	(60.0)	(63.3)	(46.0)
	After 1990	20(71.4)	5(17.9)	3(10.7)	28(100)
	(44.4)	(20.0)	(10.0)	(28.0)	
Non Migrant	13(50.0)	5(19.2)	8(30.8)	26(100)	
	(28.9)	(20.0)	(26.7)	(26.0)	
Total	45(45.0)	25(25.0)	30(30.0)	100(100)	
	(100)	(100)	(100)	(100)	
Total	Up to 1990	39(41.5)	30(31.9)	25(26.6)	94(100)
		(35.5)	(56.6)	(67.6)	(47.0)
	After 1990	43(74.1)	12(20.7)	3(5.2)	58(100)
	(39.1)	(22.6)	(8.1)	(29.0)	
Non Migrant	28(58.3)	11(22.9)	9(18.8)	48(100)	
	(25.5)	(20.8)	(24.3)	(24.0)	
Total	110(55.0)	53(26.5)	37(18.5)	200(100)	
	(100)	(100)	(100)	(100)	

*Note:* Figures in the parentheses are in percentage, Source: Field Survey

It is noticed in Table 3 that on the basis of period of migration although the highest proportion of old migrant households (41.5 per cent), new migrant households (74.1 per cent) and non migrant households (58.3 per cent) have 1 room the households that migrated up to 1990 have lowest proportion of households with 1 room among the 94 households that migrated up to 1990 while the highest proportion of households that migrated after 1990 or new migrants have 1 room among the 58 households of new migrants. Among 53 households that have 2 rooms major proportion (56.6 per cent) of households have migrated up to 1990 followed

by 22.6 per cent households those migrated after 1990 and 20.8 per cent are non migrants. Among 37 households that have 3 or more room the majority (67.6 per cent) of households have migrated up to 1990 (old migrants) followed by 24.3 per cent non migrant households and 8.1 per cent households that migrated after 1990 (new migrants). This suggests that the households that are old migrants have least crisis of space compared to non migrants and new migrants. The new migrants are most lacking in space for living because they have recently arrived in the slum and do not have adequate financial resource to spend on housing.

In the Inner slum it is found that on the basis of period of migration although the highest proportion of old migrant households (56.3 per cent), new migrant households (76.7 per cent) and non migrant households (68.2 per cent) have 1 room but the new migrant households have the highest proportion of 1 room among the 30 households of new migrants whereas the old migrant households have the lowest proportion of 1 room among the 48 households of old migrants. Among the 7 slum households having 3 rooms the highest proportion (85.7 per cent) households belong to old migrants followed by (14.3 per cent) households that belong to non migrants while none of the households of new migrants have 3 or more rooms. The space crisis for living is acute in Inner slum in the households of the new migrants (households migrated after 1990).

In the Outer slum it is revealed that on the basis of period of migration the highest proportion of old migrant households (41.3 per cent) have 3 or more rooms among 46 households that migrated up to 1990 whereas highest proportion of households of new migrants (71.4 per cent) among 28 households that migrated after 1990 and also the highest proportion of households of non migrants (50 per cent) among 28 households of non migrants have 1 room. Among 30 households that have 3 or more rooms the highest proportion (63.3 per cent) households belong to old migrants (households migrated up to the year 1990) followed by 26.7 per cent households of non migrants and 10 per cent households of new migrants. This suggests that space for living crisis is severe among households of new migrants (households that migrated after 1990) in the Inner, Outer and Total (Inner and Outer) slum area but it is much more severe in Inner slum compared to Outer slum.

#### **5.4. Floor area of House**

The size of floor area of slum households also reveals the congestion in the slum households like that of number of rooms. Table–4 represents the floor area of houses of the slum dwellers

**Table 4: Floor area of House**

<i>Slum Type</i>	<i>Floor area of house (in sq. ft.)</i>					<i>Total</i>
	<i>Up to 50</i>	<i>51–80</i>	<i>81–100</i>	<i>101–120</i>	<i>121 and above</i>	
Inner	7 (7.0)	63 (63.0)	23 (23.0)	7 (7.0)	0 (0.0)	100 (100)
Outer	0 (0.0)	40 (40.0)	15 (15.0)	25 (25.0)	20 (20.0)	100 (100)
Total	7 (3.5)	103 (51.5)	38 (19.0)	32 (16.0)	20 (10.0)	200 (100)

*Note:* Figures in the parentheses are in percentage, Source: Field Survey

Among 200 households the highest proportion (51.5 per cent) households have floor area of house within 51–80 square feet followed by 19 per cent households having floor area within 81–100 square feet, 16 per cent households having floor area within 101–120 square feet, 10 per cent households having floor area of 121 square feet and above and 3.5 per cent households having floor area up to 50 square feet. It is noticed that floor area of slum houses is small. The highest proportion of households in both the Inner slum (63 per cent) and Outer slum (40 per cent) has houses of 51–80 square feet area. The situation regard to floor area of house is better in Outer slum compared to Inner slum as it is found that in Outer slum there are no households up to 50 square feet area, there are higher proportion of households of 101–120 square feet in Outer slum (25 per cent) compared to Inner slum (7 per cent) and also there are 20 per cent households in Outer slum with floor area of house of 121 square feet and above while there are no such households in Inner slum.

The crisis of space in the slum households results in lack of space for the essential amenities for living—bathing, toilet and water supply in the households.

### 5.5. Type of Space used for Bathing

Table 5 represents the type of space used for bathing in the slum area.

**Table 5: Type of Space used for Bathing**

<i>Slum Type</i>	<i>Type of space used for bathing</i>					<i>Total</i>
	<i>Separate arrangement</i>	<i>Public bath</i>	<i>Canal/river</i>	<i>Open space</i>	<i>Private shared arrangement</i>	
Inner	20 (20.0)	25 (25.0)	0 (0.0)	9 (9.0)	46 (46.0)	100 (100)
Outer	57 (57.0)	10 (10.0)	0 (0.0)	6 (6.0)	27 (27.0)	100 (100)
Total	77 (38.5)	35 (17.5)	0 (0.0)	15 (7.5)	73 (36.5)	200 (100)

*Note:* Figures in the parentheses are in percentage, Source: Field Survey

Among 200 slum households the highest proportion (38.5 per cent) households have separate arrangement for bathing, 36.5 per cent households have private shared arrangement and the bathing place is shared by a few households; either by tenants or by owners of different households, 17.5 per cent use public bath for bathing and 7.5 per cent households bathe in open space. None of the households in the slum area go to river or canal for bathing. In Inner slum highest proportion (46 per cent) households has private shared arrangement for bathing and only 20 per cent households have separate bathing facilities whereas in Outer slum major proportion (57 per cent) of households has separate arrangement for bathing. In this respect it is thus evident that households of Outer slum are better off than their counterpart in Inner slum. This may be because of less space to accommodate a bathroom in households of Inner slum in comparison to Outer slum.

### 5.6. Type of Space used as Toilet

Type of space used as toilet gives a picture of hygiene and how clean and habitable the slum area is. Table 6 represents the type of space used as toilet in the slum area

**Table 6: Type of Space used as Toilet**

<i>Slum Type</i>	<i>Type of space used as toilet</i>							<i>Total</i>
	<i>Private toilet</i>	<i>Public toilet</i>	<i>Public toilet (paid)</i>	<i>Private shared arrangement</i>	<i>Open space</i>	<i>Road side/ rail tracks</i>	<i>Canal/ river banks</i>	
Inner	22 (22.0)	25 (25.0)	5 (5.0)	35 (35.0)	0 (0.0)	13 (13.0)	0 (0.0)	100 (100)
Outer	58 (58.0)	5 (5.0)	0 (0.0)	26 (26.0)	0 (0.0)	0 (0.0)	11 (11.0)	100 (100)
Total	80 (40.0)	30 (15.0)	5 (2.5)	61 (30.5)	0 (0.0)	13 (6.5)	11 (5.5)	200 (100)

*Note:* Figures in the parentheses are in percentage, Source: Field Survey

Among 200 slum households highest proportion (40 per cent) households use private toilet, 30.5 per cent have private shared arrangement of toilet which is shared by a few households; either by tenants or by owners of different households, 15 per cent households use public toilet provided by Government, members of 6.5 per cent households defecate beside railway tracks, 5.5 per cent households on

river bank and 2.5 per cent households use paid public toilet (paying Rs. 1). 22 per cent households in Inner slum have private toilets whereas 58 per cent households in Outer slum have private toilets. This suggests that situation of Outer slum is better in comparison to Inner slum. The reasons are problem of space in Inner slum and also may be the poorer financial condition of Inner slum households.

### 5.7. Water Supply

Supply of water is a basic necessity for living. Table–7 represents the main source of drinking water of slum households

**Table 7: Main Source of Drinking Water of Slum Households**

<i>Slum Type</i>	<i>Main source of drinking water of slum households</i>			<i>Total</i>
	<i>Private hand pumps/wells</i>	<i>Public hand pumps/wells</i>	<i>Pipelines on the road</i>	
Inner	10 (10.0)	22 (22.0)	68 (68.0)	100(100)
Outer	55 (55.0)	14 (14.0)	31 (31.0)	100(100)
Total	65 (32.5)	36 (18.0)	99 (49.5)	200 (100)

*Note:* Figures in the parentheses are in percentage, Source: Field Survey

Among 200 slum households highest proportion (49.5 per cent) of households have pipelines on the road as main source of drinking water followed by 32.5 per cent households having private hand pumps or wells and 18 per cent having public hand pumps or wells as main source of drinking water. Even though highest proportion of the slum households depends on the pipelines on the road for drinking water a few households complain that they have to go to other wards or some distance away from residence for water. The water is not sufficient for all households. This problem is more acute in the Inner slum area. Among 100 households major proportion (68 per cent) slum households in Inner slum depend on pipelines on the road for drinking water, 22 per cent households in the area depend on public hand pumps or wells for drinking water and only 10 per cent have private hand pumps or wells for drinking water purpose. In Outer slum highest proportion (55 per cent) households have private hand pumps or wells for purpose of drinking water followed by 31 per cent household having pipelines on the road as main source of drinking

water and 14 per cent depend on public hand pumps or wells. The Outer slum households have less access to Government drinking water supply through pipelines on road in comparison to households in Inner slum but are more self reliant in this regard as major proportion of households of Outer slum can afford to have private hand pumps or wells. Lack of space is a constraint for construction of wells or tube wells in the households of Inner slum.

## **CONCLUSION**

There exists crisis of space for living in the slum households of Siliguri Municipal Corporation area. It is revealed through finding the relationship between family size and number of rooms in the slum households and floor area of the house. The crisis of space for living is more acute in the Inner slum households compared to those in Outer slum. A significantly positive relationship is noticed between monthly household income and number of rooms in households and hence with the increase in monthly household income the number of rooms in household increases and this relationship is more prominent in Outer slum compared to Inner slum as due to greater space crisis in Inner slum even if the slum households earn higher income they are unable to expand their houses. The new migrants (households migrated after 1990) face the crisis of living space more compared to the old migrants (households migrated up to the year 1990) and non migrants as they have recently arrived in the slum mainly in search of employment and do not have adequate financial resource to spend on housing and this crisis is high in Inner slum. The crisis of living space have resulted in the deprivation of some slum households from basic amenities like bathroom, toilet and water supply which is much severe in Inner slum compared to Outer slum. It is evident that the living condition of slum households of Inner slum is poorer in respect of space for living compared to their counterpart in Outer slum. Therefore Government has to take initiative to prevent the growth of slum households in Inner slum area of Siliguri Municipal Corporation and also provide the basic amenities like bathroom, toilet and drinking water in the slum areas in greater number where the lack of space hinders the slum dwellers from setting up these facilities in their households. The “Housing for All by 2022” is a good initiative by the Government in addressing the problem of space but still more effort is needed in this respect to improve the living condition of the slum dwellers of the SMC area.

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**To cite this article:**

Madhumita Das & Kanak Kanti Bagchi. The Crisis of Space for Living in the Slums: A Case of Siliguri Municipal Corporation Area. *Man, Environment and Society*, Vol. 1, No. 1, 2020, pp. 1-18