CSD Working Paper Series - 002/03

Magnitude of slum problem in Delhi

Sabir Ali



COUNCIL FOR SOCIAL DEVELOPMENT Sangha Rachana 53 Lodi Estate, New Delhi-110 003 (India) Phone:24615383, 24611700, 24693065, 24692655

Fax: 91-11-24616061

E-mail: csdnd@del2.vsnl.net.in Website: www.csdindia.org

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Dr. Sabir Ali**

National Capital Territory of Delhi has, unfortunately and perhaps undeservedly, come to symbolize population growth more than any other city in the world. It had only 4.0 lakhs population in 1901, which was increased to 6.36 lakhs in 1931, 26.58 lakhs in 1961, 62.20 lakhs in 1981 and 137.8 lakhs in 2001.

As compared to general population growth in Delhi, slum population is growing at faster rate (55 percent per annum)². A study conducted by School of Planning and Architecture, New Delhi indicates that there were about 12,794 slum households in the National Capital in 1951³. These have increased to about 4,80,000 households in 1994. According to Provisional Population Totals, Census of India, 2001. Delhi's slum population is about 20.0 lakhs (about 18.5% of the total urban population). Immigration estimated to be about three lakhs every year is not only adding to the growth of population but also to the deterioration of slum conditions.⁴

At present most of the inhabitants, particularly of slums are facing serious problems of over-stretching of the existing facilities and inadequacies like water supply, sanitation, electricity, housing, and air pollution, etc. In addition to the above, pressure on health, education and recreation facilities further

^{*} The author is grateful to Dr. Abdul Razak, Assistant professor of Planning, School of Planning and Architecture, New Delhi for his valuable comments.

^{**} Planner/Fellow, Council for Social Development.

¹ Population Data Sheet, Census of India, 2001, New Delhi.

² Prodipto Roy (1993), Bustees, Calcutta's Second City, Council for Social Development, New Delhi (memeograph).

³ Prasad P. (1995), Urban Slums, Delhi: Delhi Publishing House.

⁴ Slum Wing, Municipal Corporation of Delhi (1991), Slums in Delhi: An Experience.



complicate the problems of slum dwellers. To understand the present extent of slum problem in the National Capital Territory of Delhi this paper is divided into three parts.

The first part deals with the problems and inadequacies of infrastructural facilities caused due to population growth in Delhi in general and slum in particular. The second part describes basic concepts, definitions, growth, types and factors responsible for the unwanted growth of slums. The third part highlights the emerging issues and areas of research based on the above two. It is also to be remember that there is no survey done after 1990 in the slum areas of Delhi. It is first time in the Census 2001 of India which has published slum population*.

Problems and Inadequacies of Infrastructural Facilities

Water for drinking and other domestic uses is perhaps the most important of the facilities and services that are to be provided for achieving a healthy environment in any settlement. The variation in water supply is significantly noticed between the deprived and privileged areas of Delhi. New Delhi Municipal Corporation and Delhi Cantonment areas are receiving a surplus water supply of recommended norm of 70 gallons per person per day. While areas of MCD where majority of population live is suffering from the acute shortage of water supply. According to sources, the existing capacity of water supply is about 444 million gallons a day (MGP)⁵, while present requirement at the norms of 70 gallons per capita a day is about 700 MGD. The present shortage of water supply comes to about 255 MGD. If population growth continues at the same pace the shortage may further shoot up considerably. Hence effecting the quality of life of the poor.

The overall situation of sanitation in Delhi is poor. It is contrasting between posh localities and poor settlements like JJ clusters**. In posh localities where only 10 percent population live has been provided with sufficient quantity of water supply, sewer system and efficient sewage/garbage

Provisional Population Totals - Census of India, 2001, Statements I & II.

⁵ Girish K. Misra et al., (eds.). (1997), Sustainable Urban Development, New Delhi: Uppal Publishing House.

^{**} Jhuggie-Jhompri Clusters.

collection disposal system while slum settlements and poor localities of MCD, suffer from the above inadequacies and getting progressively worse with the influx of population.

According to Voluntary Health Association of India's publication **Delhi**, A **Tale of Two Cities** one, out of every four residents of Delhi has no access to sanitary latrines⁶. And amongst those who do have this amenity, a majority do not have constant running water supply essential to keep latrines clean. The situation everywhere is getting serious except, of course, in the selected privileged areas of the city. According to estimates, over 33 lakh residents of Delhi either use badly maintained community latrines or use open spaces for defecation.

Garbage is generally collected from private households, streets and lane cleaning, construction sites, dalaos in localities and industries. The quantity of this is continously increasing. It is becoming difficult to keep city clean owing to the growth of population. The existing infrastructure is becoming inadequate and city is rapidly acquiring alarming dimensions. The total volume of garbage generated is about 4000 metric tonnes per day ⁷. Only about 400 trucks are available to dispose off the garbage.

The drainage system in the city is hopelessly inadequate. It is not existing in most of the areas. Situation becomes extremely bad in low-lying areas of East-Delhi during rainy season. It is indicated in number of publications that the life gets paralysed due to water-logging after every downpour 8. The present sewage generation is about 700 million litres a day (MLD) while installed capacity of sewage treatment is only 270 MLD. The sewage untreated is 430 MLD polluting various parts of the city including Yamuna river water⁹. The scarcity of electricity is not very acute presently.

The traffic is chaotic on the streets of Delhi. It suffers from heavy congestion. There are more than 800 percent increase in the number of

⁶ Voluntary Health Association of India (1993), Delhi, A Tale of Two Cities.

^{•7} Sabir Ali (1995), Environment and Resettlement Colonies of Delhi, New Delhi: Uppal Publishing House.

⁸ Sabir Ali, (1991), Slums Within Slums, New Delhi: Vikas Publications.

⁹ Poonam Saxena (1991), 'Is Delhi Dying?', Indian Express, New Delhi, 29th June.

vehicles in last two decades (1991-2000)¹⁰. Recently Delhi has become the most fatality prone city in the world. Five persons are killed on the roads in Delhi everyday. The reasons for the fatality include, large number of vehicles on road, poor road conditions, road encroachment, poor driving skill, poor maintenance of vehicles, lack of road discipline and inadequate traffic personnels. ¹¹

The health and education facilities are also lacking in Delhi. Locational distribution of these facilities like dispensaries, clinics and mobile dispensaries, shows that as compared to the approved colonies, the poor settlements are not provided adequately. It reveals in 'Environmental Situation of Slums in India' (Sabir Ali, 2003)¹² that the real sufferers are the inhabitants of Jhuggie-Jhomprie bustees. Due to the high cost of treatment and non-availability of public medical services, the poor are suffering from many diseases like, tuberculosis, fevers, coughs, colds, measles, stomach disorders, diarrhoea, hookworms, malaria, and typoid, etc. The above book also reveals that the educational facilities are inadequately provided. The academic establishments of private sector mushrooming with doubtful standards and quality and Government run institutes suffer from shortage of teachers, equipments, furnitures and classrooms, etc.

In one of the Symposium held in Calcutta and organised by the Council for Social Development it has been indicated that pollution is very high in Delhi, which can be placed amongst the most polluted cities in the world¹³. Carbon monoxide level in busy streets of Delhi during heavy traffic hours is higher than those in cities like London, New York and Chicago etc. It constitutes about 55 percent of the total vehicular pollution. Nearly 250 tons of gas is emitted by vehicles every day. The effects of increasing pollution on the health of inhabitants of Delhi are enormous. Introduction of CNG in the Capital could effect marginally on the vehiculor pollution.

¹⁰ Sabir Ali (2003), Environmental Situation of Slums in India, New Delhi: Uppal Publishing House.

¹¹ Ibid.

¹² Ibid.

¹³ A Symposium on Urbanisation and Slums, held at Calcutta (26-28 April, 1993) organised by Council for Social Development, 53 Lodi Estate, New Delhi.

Delhi being the Capital of India holds an eminent position among the great cities of the world. The metropolis apart from being a symbol of ancient values and present aspirations is the focus of socio-economic and political life of India. A complete picture of India's diverse culture, languages, religions and other attributes is sketched in the capital. The varying levels of development make Delhi a city of contrasts of two worlds, one of the rich and the other of the poor. The glossy sky-scrapers, the palatial bungalows and luxurious hotels make odd companions with the slum settlements of the construction workers and the pavement dwellers.

At present, out of the Delhi's total population, 3/4th live in sub-standard areas with a break-up of 1.2 millions in Regularised Colonies, 0.5 million in Unauthorised Colonies, 1.3 million in Jhuggi Clusters, 1.2 million in Resettlement Colonies, 0.5 million in Urban Villages, 0.5 million in Rural Villages and 1.8 million in Slum designated areas. ¹⁴ Living in sub-standard areas has created many problems as indicated above in the city.

The Delhi slums have been known as the filthiest slums among the Metropolitan cities in the country and (among the top) in three polluted cities of the world along Cairo and Mexico city. The nature of living in these slums presents problems of cleanliness. The term 'Slum' is used in a loose sense to represent areas which are congested, overcrowded, haphazardly laid out and where the essential civic services are absent. In addition to this the drains in slums are generally open, water is usually stagnant because of poor gradients and the choked drains sickening sights and offensive odour. The Municipal Sweepers may even dump refuse into the drains and the children usually use them as latrines¹⁵.

In Encylopaedia Britannica, 16 the slums have been defined as follows:

"The Slums are residential areas that are physically and socially deteriorated and in which satisfactory family life is impossible. Bad housing is a major index of slum conditions. By bad housing is meant dwellings that have

¹⁴ Improvement of Slums in Delhi prepared by Slum Wing, DDA, New Delhi, 1990.

¹⁵ Sabir, Ali (1992), 'Garbage Problems in Two Resettlement Colonies of Delhi', Social Change 22 (1).

¹⁶ Encyclopaedia Britannica, Vol. II, 1970, p. 776.

inadequate light, air, toilet and bathing facilities; that are in bad repair, dump and improperly heated; that do not afford opportunity for family privacy; that are subject to fire hazard and that overcrowded the land, leaving to fire hazard and that overcrowded the land, leaving no space for recreational use" and in other, vocabulary it is defined as "A highly congested area marked by deteriorated unsanitary buildings, property and social disorganisation" 17.

Due to varying socio-economic conditions and the character of the city, slum definition varies from place to place. In India, slum areas have been defined under section 3 of the Slum Areas (Improvement and Clearance) Act, 1956, as areas where buildings:

- (a) are in any respect unfit for human habitation; or (b) are by reason of dilapidation, over-crowding, faulty arrangement and design of such buildings, narrowness or faulty arrangements of streets, lack of ventilation, light sanitation facilities, or any combination of these factors, are detrimental to safety, "health or morals". And also,
- 2) "In determing whether a building is unfit for human habitation for the purpose of this Act, the regard shall be had to its conditions in respect of the repair, stability, freedom from damp, natural light and air, water supply, drainage and sanitary conveniences and facilities for storage, preparation and cooking of food and for the disposal of waste water; and the buildings shall be deemed to be unfit as aforesaid if and only if it is so far defective in one or more of the said matters that it is not suitable for occupation in that condition".

In a discussion in the Parliament on 21st November, 1973, it was stated that the slum problem is not only a problem of shelter; but it is a problem of health and hygiene. A number of wide-spread epidemic diseases emanate from the slums. These slums are not only a nuisance and danger to the slum dwellers but to the rest of the population¹⁸.

¹⁷ The Merriam - "Webster English Dictionary" G&C Merriam Company, publisher Springfield Mass.

¹⁸ Lok Sabha Debates, 21st Nov., 1973, Cols. 988-89

Slum Typology

The slums can be defined as areas of city, which when studied from the physical standards, appear to be areas with inadequate housing, deficient facilities, over-crowding and congestion and from the sociological perspective are seen as having a way of life and special character which has its own set of norms and values, health practices, deviant behaviour and social isolation and from the economic point of view having very low levels of income, low levels of standards of living, lack of education, unemployment, under employment and low paid workers.

In view of the above the slums in the National Capital Territory of Delhi can be classified into the following categories for the purpose of research.

- Legally notified slum areas
- Jhuggi-Jhompri Clusters (JJ Clusters)
- Unauthorised Colonies
- Urban Villages
- Harijan Bastis
- Pavement Dwellers
- Resettlement Colonies

Slum Notified Areas

The notified slums are those which have been declared/notified as slum areas under Section 3 of the Slum Areas (Improvement and Clearance) Act, 1956. Under this Act only those areas have been declared as slum areas which meet the conditions under the Act.

It may be pointed out here that the slum areas are not concentrated at one place but are scattered all over Delhi. The major proportion is found in the walled city (Shahjanabad) and its extensions. An estimated 20 lakh population is believed to be living in the areas which are legally notified as slums. Out of which the city of Shahjahanabad accommodates about 6 lakh population. The old city of Shahzahanabad which was originally meant for accommodating 60,000 population is now bursting with this ten fold increase. The old city has a large number of very old buildings unfit for human habitation.

Jhuggie-Jhomprie Clusters

As stated earlier a good majority of the rural migrants have moved to the Delhi city giving rise to the number of squatter settlements. It is evident that the new groups who come to the city to seek entry in the development process, create a new type of residential settlements in contradiction to that of the old urban groups. Since the new groups are mostly constituted of low income group of rural migrants, they accept whatever accommodations are available, or can be quickly erected with waste materials or with those that can be procured on low costs on open spaces which are unusable or lying unused. Generally, the operation takes place in groups, initially consisting of relatives or kins or members from the same cast, religion, village, district or language - with the help of local leaders and often under the political patronage. This process involves illegal occupancy or squatting on public or private lands. Even the huge growth seems to be the result of large scale immigration which is exceeding more than 3.0 lakh persons every year from the neighbouring States. At present there are 929 JJ Clusters in Delhi 19.

The Unauthorised Colonies and Harijan Bastis

The emergence of the unauthorised colonies again is the result of shortage of houses and house plots in properly planned and approved residential colonies. There are about 1071 unauthorised colonies in Delhi (1993). About 155 colonies are being handled by DDA as these came under the jurisdiction of DDA. The Slum department of DDA is looking after the development work in 44 unauthorised colonies and the remaining are being looked after by MCD. Besides, there are 113 Harijan Bastis in Delhi.

Urban Villages

There are about 111 urban villages in Delhi. These villages experienced slums like environment due to fast growth of population. Provision of water supply, surface drainage, roads and parks, dust-bins, public lavatories and urinals are some of the essential facilities that need to be provided to

¹⁹ Birdi H.D. (1995) 'Slum Law and Urbanisation'.

these villages. The following urban villages have been denotified vide notification No. LB 2106/2 dated $28-8-1985^{20}$.

Arakpur Bagh Mochi, Hari Nagar Ashram, Kilokari, Sarai Kale Khan and Village Nangloi, Chirag Delhi, Khirki, Basant Gaon, Garhi Jharia Maria, Madangir, Samai Pur, Badli, Badar Pur Part I & II, Rajpur Village and Gurki-Mandi, Kotla Mubarkpur.

Pavement Dwellers

There is another part of the squatters who don't have even a roof over their head and they resort to the pavements of Delhi at night to sleep. The squatters in the Jhuggies are better than the pavement dwellers in the sense that the former have at least a roof over their head to protect them from vegaries of nature but the latter are not destined even for a shack. They are mostly seen in the Varandhas of big commercial buildings, the pavements, and the road-berms.

According to the estimates about one lakh population of Delhi live on pavements (Slum Wing, MCD). They are mainly concentrating in the Parade Ground, Gandhi Ground, the lawns opposite Red Fort, Inter-state Bus Terminus, Jama Masjid, Ram Lila Ground, Roshanara Road, Subzi Mandi, Azadpur, lawns of All India Institute of Medical Sciences, Kirti Nagar and Delhi Railway Station, Nizamuddin, Jangpura Bhogal, etc.

This strata of the pavement dwellers are the low paid workers *viz-a-viz* Labourers, Coolies, Shoe-Shine boys, Load Carriers, Rag Pickers and other such activities. They are considered poorest of the poor.

Resettlement Colonies in Delhi

To resettle the squatter population, about 2.16 lakh households have been resettled in 45 resettlement colonies. Socio-economic conditions of these colonies is like slums. At present these colonies are suffering from the various infrastructural inadequacies like water supply, sewerage, drainage, garbage disposal, electricity, roads, schools, hospitals, parks, etc.

²⁰ A project report on Policies and Developmennt of Urban Villages prepared by the City Planning Wing, DDA, 1997.

A survey conducted by the Council for Social Development in three resettlement colonies (1997) also confirmed the above findings. A brief of the survey findings have been given below to formulate the issues.

Three resettlement colonies namely Trilokpuri, Kalyanpuri and Khichripur were planned for resettling squatters in 1977. At present, about 30 thousand households are residing on 22 thousand plots. This survey indicates that about 11 thousand squatters have also emerged on the open spaces reserved for housing, parks, health and education facilities and on roadberms etc. in these colonies.

The survey findings reveal that half of the population do have individual tap connections for water supply. The remaining half have to depend on community or individual hand pumps. According to Slum Wing of MCD a minimum ratio of one hand pump for 20 households has to be achieved. The situation in Kalyanpuri is the worst (1:174) followed by Himmatpuri (1:49) while in Khichripur it is well within the standard provision of 1:20. The report shows that out of 47 blocks, 40 blocks have inadequate water supply.

There are very few individual latrines in the area and people have to depend, by and large, on community latrines. Taking the standard of 1 seat for 5 families, the overall shortfall comes to nearly 2400 seats in these three colonies. Nearly 13,000 households have no other option but to defecate in the open fields and in open drains. With such a high level of deficiency in community latries and large number of people defecating along the drains, the hygienic conditions of living in these colonies could be termed as far from satisfactory.

Added to this is the unsatisfactory condition of solid waste disposal. Domestic garbage in these colonies is dumped in a variety of places, such as masonary dalaos, unorganised dalaos, along Nallas, parks, schools and roads. Garbage collection is done by using diesel trucks, dumper bins, ox/bull trolleys. The garbage lying along nallas, normally lie unattended. Enquiries revealed that sometimes municipal Safai Karamcharis unload garbage along these Nallas from the hand trolleys and sometimes they dump garbage into the unorganised dalaos. Condition of hygiene in the three resettlement colonies has been found to be deplorable on account of

the consequences of garbage not being properly protected before it is lifted. The low rate of clearance, foul smell, mosquito breeding and presence of stray animals like cows, pigs and dogs, are bound to lead to several diseases.

The roads/streets in these resettlemennt colonies have no structural deficiency since all the 47 blocks have paved/metalled roads. However, just one visit to these areas would convince one of the real condition of these so called paved/metalled roads which are full of pot-holes and are an environmental hazard. The picture is even more alarming with the existence of the thousands of squatters. The traffic jams are frequently reported near bus terminals and on road crossings.

There are 45 Anganwadis, 14 Primary Schools and 4 Middle Schools in these colonies. The educational facilities are grossly inadequate for the resettlers, and the additional burden of the squatters has made the matter even worse.

The medical facilities also appear to be quite inadequate in these colonies, more so on account of the high susceptibility of the people to a variety of diseases, often on account of poor hygiene and the inability of the people to afford proper medication, the situation is further aggravated. The people from the neighbouring jhuggis also have to avail of the same facilities. Other than above three, remaining resettlement colonies experienced the same type of difficulties.

Factors Responsible for Growth of Slums

The studies conducted in the Council for Social Development on slum Analysed the factors responsible for the formation and growth of slums in the city of Delhi. These factors are mainly due to poverty, disparity of economic development, inadequacy of existing housing stock, absence of planning, and political reasons, etc.

Poverty

The poverty in the region leads to influx of agricultural labourers into the city from adjoining districts. After coming into the city, they find employment only in the informal sector. Unable to pay the rents prevailing in the city, they squat on any open space available near their work place.

Disparity of Economic Development

Being a Capital of the country Delhi has many attractions for outsiders like wholesale trade, specialised retail trade, banking and financial institutions and job opportunities in other sectors, etc. As a result, enormous informal activities have generated in the city. The employees of this sector, who earn very low wages, are unable to pay market rates for housing, and hence find accommodation in slum settlements. The setting up of many private sector undertakings and a large number of medium and small scale industries during last three decades in the city has gravitational pull for the mass influx of skilled, semi-skilled and unskilled labourers in the city, from adjoining districts.

Inadequacy of Existing Housing Stock

The population of Delhi which was 4 lakhs in 2001, became 137.3 lakhs by 2001, implying that population has grown more than thirty times, within ten decades. As housing activities have not commensurated with the demand created by the increasing population. Inadequacy of a large stock of low income housing forces migrants into the city to find accommodation in squatter settlements.

Absence of Planning

National Capital Territory of Delhi has grown haphazardly like factories, administrative areas and shops have sprung up mindlessly, without proper planning. Labourers of these establishments put up cheap dwelling units in the intervening spaces due to their desire to live near their work places.

The political leaders have been a major cause for the proliferation of slums in the city. These settlements are patronised by politicians since they form major vote banks.

Nature of Formation and Growth of Slums and Squatters

In Delhi, most of the slums including hutments are formed by the process of invasion, that is the illegal take over of land. Normally, vacant lands which are least likely to be required for any immediate purpose are squatted upon. The residents defend their occupation of land against hostile owners or government agencies. When they anticipate efforts to remove them, they organise themselves into large groups to oppose any action.

The slum settlements also grow by accretion, that is, an increase by natural growth or gradual external addition, with period of rapid growth, reflecting particular historical circumstances. Again the occupation of land is illegal, but it occurs gradually as individual households move on to vacant land.

While slum settlements are formed by the above mentioned processes, they grow through various processes of accretion densification and population succession. These result in high densities and overcrowding, putting pressure on the services provided in the surrounding areas, on which these settlements depend on.

Locational Preference of Squatters

A variety of factors like availability of land, nearness to workplace, access to transport facilities, etc. are responsible for location of slums (hutment areas) in different parts of the city.

Most hutment areas are located in low lying areas (e.g. East Delhi Slum) and in areas where the chances for the residents to stay is high without the threat of eviction. Some hutment areas have developed along roads and railway margins for easy access to work place. Many slum settlements are also situated along the Yamuna river (Pushtas).

Ownership of Land Occupied by Squatter Settlements

The slum dwellers do not bother about the ownership of the land they squat. In Delhi, about two-third of them occupied Government land and one-third private owned land.

Conclusions

Based on the part I and Part II this paper has raised more questions for research than it has answered:

- Why is the growth rate of slums more than five to 10 times the growth rate of the city in general?
- Can slum growth be stopped?
- Do we have sufficient and reliable data for effective planning.
- Whether immigration of population to the National Capital Territory of Delhi can be checked?
- Whether have we laid to resettle slum dwellers? If yes, where is the land?
- Whether have we got sufficient resources financial, materials and manpower to support huge resettlement programme?
- Whether existing slum may be improved by re-alined under planned system with adequate infrastructural facilities?
- Is there need to review the policy measures taken during the last five decades for effective implementation?
- Is there need to study different typology of slum seperately to assess that socio-economic and cultural variation, ultimately needed for spatial planning?
- Is there any need to constitute a separate Ministry or Authority for the better management of slums and resettlement colonies where about 32 percent of total population of Delhi live?
- Can the socio-economic gap between the rich and the poor be reduced through effective organisational strtuctures?
- Is it required to re-frame the section 3 of the Slum Areas (Improvement and Clearance) Act 1956 or modify to improve the quality of life of the urban poor.

