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Review Of Research



AVAILABILITY OF BASIC AMENITIES IN SLUM AREA IN DELHI CASE STUDY OF KAMLA NEHRU PARK



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ABSTRACT

Due to increasing urbanization, slums area is growing very fast in the Indian Cities. So due to this, existing public health facilities and basic services like drinking water, housing, drainage, sewerage etc., are not accessible to most of the urban people in general and the urban poor living in slum or slum-like conditions in particular. It is a big challenge for the state/local governments to make a balance between demand and supply of facilities in urban areas for a good quality of life. Due to inadequate basic services, the people of slum area would be very sensitive to any disease. At present, no viable solution is seen that could address this demand and supply gap in the near future, except 'Smart City Planning'. Smart city planning is crucial as it would help in balancing between the resources available

and requirements of the citizens.

KEYWORDS: smart cities, slum area, basic amenities.

1. INTRODUCTION:

Due to concentration of economic activities in urban areas, start migration from rural to urban areas in search of employment opportunities for their livelihood. But due to poor income, they are



unable to get good houses and occupy vacant Government / Private Lands nearby and put up tents and huts, which is becoming the reason of the rapid growth of slum population in the Indian cities. Generally most of the slums are situated in vulnerable locations such as river margins, water logged areas and road margins etc. that are devoid of basic amenities.

So due to this, existing public health facilities and basic services like drinking water, housing, drainage, sewerage etc., are not accessible to most of the urban people in general and the urban poor living in slum or slum-like conditions in particular. It is a big challenge for the state/local governments to

make a balance between demand and supply of facilities in urban areas for a good quality of life. Due to inadequate basic services, the people of slum area would be very sensitive to any disease. At present, no viable solution is seen that could address this demand and supply gap in the near future, except 'Smart City Planning'. Smart city planning is crucial as it would help in balancing between the resources available and requirements of the citizens.

2. CONCEPT OF SLUM

Concept of slums and its definition vary from country to country depending upon the socio-economic conditions of each society. The basic characteristics of slums are given by many intellectuals:

- Dilapidated and infirm housing structures
- Poor ventilation
- Acute over-crowding
- Faulty alignment of streets
- Inadequate lighting
- Paucity of safe drinking water
- Water logging during rains
- Absence of toilet facilities
- Non-availability of basic physical and social services

So from above definition it can be said that, the living conditions in slums are usually unhygienic and contrary to all norms of planned urban growth.

'Slums' have been defined under section 3 of the Slum Areas(Improvement and Clearance) Act, 1956 as areas where buildings.

- are in any respect unfit for human habitation.
- are by reason of dilapidation, over-crowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light, sanitation facilities or any combination of these factors, which are detrimental to safety, health and morals.

According to the Census of India, 2001, a slum is a compact area of at least 300 populations or about 60-70 households of poorly built congested tenements, in unhygienic environment, usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities.

3. LITERATURE REVIEW

For this study, many articles and past studies has been thoroughly studied and reviewed. Brief summary of all the studies is given below.

According to UN habitat "slum" is wide range of low-income settlements, poor human living Conditions and heavily populated urban area. It can be divided into two broad types: "slums of hope" and "slums of despair". The first are settlements on an upward trend, largely made up of newer, usually self-built structures, and that is in or has recently been through a process of development, consolidation and improvement. The second group comprises "declining" neighborhoods in which environmental conditions and services are in a process of seemingly inevitable decay.

In most cities of the world, slums, by definition, are informal and illegal settlements. A large proportion of the residents are rural migrants, displaced persons, illegal and legal immigrants, unemployed, and refugees (Lee W Riley, et, al;2007).

3.1 Public health Infrastructure:

Public health Infrastructures like safe drinking water, good housing condition, good garbage system, sanitation etc. are very important for healthy health in all over the world.

Many of the health problems in urban slums stem from the lack of access to or demand for basic amenities. Basic service provisions are either absent or inadequate in slums. Lack of drinking water, clean, sanitary environment and adequate housing and garbage disposal pose series of threats to the health of slum dwellers, women and children in particular, as they spend most of their time in and around the unhygienic environment (Suchi Pande et al; 2005)

The harsh physical and social conditions of urban slum life lead to chronic stress in slum dwellers. Insecurity of tenure, poor structural housing conditions, deficient access to safe drinking water and sanitation, and severe overcrowding. All these factors have direct consequences for the physical and psychological wellbeing of urban population (Elliott D Sclar, et al; 2005)

According to, Sarah Fry, et al; (2002) Lack of clean water supply and sanitation are critical problems for slum dwellers in Ahmedabad. It creates an unhygienic, contaminated environment. Garbage dumps are also breeding sites for rodents and insects, such as mosquitoes, which carry dengue and malaria. A small child in Ahmedabad's urban slums faces serious health risks, as IMRs almost twice as high as the national rural average would indicate. (Sarah Fry, et al; 2002).

The UN Millennium Task Force on slum dwellers reported that lack of provision for water and sanitation and high levels of overcrowding contribute many communicable and non-communicable diseases, injury, and premature deaths in several urban slums in the megacities of Dhaka and São Paulo (UN Millennium Project .2005).

Nijama, et. Al; (2003) found that due to lack of proper living conditions slum children are vulnerable to diarrhoea, typhoid, malaria and other such diseases.

A Mumbai slum study by Verma et al (2001) indicated that the health status of the slum dwellers is influenced by poor economic status of the household,

Sijbesma (2006) in a Mumbai study concluded that poor hygiene and sanitation, lack of safe drinking water contribute to health problems of the slum dwellers

It is well known that the health status of the slum dwellers is greatly influenced by living condition they live in. Slum congestion, homeless families, street children, severe drainage shortage, air pollution, stinking water bodies, heaps of garbage, unhygienic working condition are all unique to urban environment (Rajiva Prasad, et al; 2013).

Due to inadequacies of water and sanitation in household, Not having toilets, or having to wait in long queues to use filthy toilets, carries health risks and is also a source of anxiety for women in Mumbai and Pune slums area (Meera Bapat, et al., 2003).

Lack of water and sanitation makes people, and especially women, more susceptible to a range of illnesses that overall compromise their immune system and make them more prone to HIV infection and accelerated progression to AIDS. Women affected by schistosomiasis, a parasitic disease common in the absence of adequate sanitation, (Cecilia Tacoli, et al; 2012).

Child mortality and morbidity (diarrhea in particular) have been associated with poor water quantity and quality, lack of sanitation and poor hygiene practices. Open defecation and ineffective drainage system leads to higher incidence of childhood diarrhea. (Siddharth Agarwal, et al; 2005).

According to Dr Mohammed, et al; (2005). Generally, people in slum area consume rice 2 or 3 times per day but milk, meat, fruits and vegetables are not often consumed. Therefore, malnutrition among women and children is a serious problem in Dhaka. Protein-energy malnutrition, iron deficiency anaemia, iodine deficiency disorders, and vitamin A deficiency are common. (UNICEF 2010).

In all the above said studies public health Infrastructures are very important for the urban people health and good quality of life.

4. AIMS AND OBJECTIVES

The present study was undertaken to find out the quality of life of households in Nehru camp slum area is assessed in terms of the following Parameters:

- Water supply system
- Drainage system
- Garbage disposal system
- Toilet system
- Number Of people per household

5. DATA BASE

This study was based on primary data like photographs.

6. METHODOLOGY

The methodology adopted was qualitative for this study purpose. The primary data was collected through pre-designed and largely pre-coded questionnaires survey method at household level.

6.1 SAMPLING DESIGN

Based on cost, time and the feasibility of data collection, we arrived at the following sample size 67 household from slum area through simple random sampling. This method is very useful, when the population is small, homogeneous and readily available.

7. ANALYSIS

7.1 WATER SUPPLY SYSTEM

As discussed elsewhere, supply of protected drinking water is the most essential facility for health. In the study area, the samples indicate that a majority of slum (97%) do not have drinking water facility within the household. This is evident in the pie chart that is reflective of the situation that most people rely on the public water supply systems in the slum.

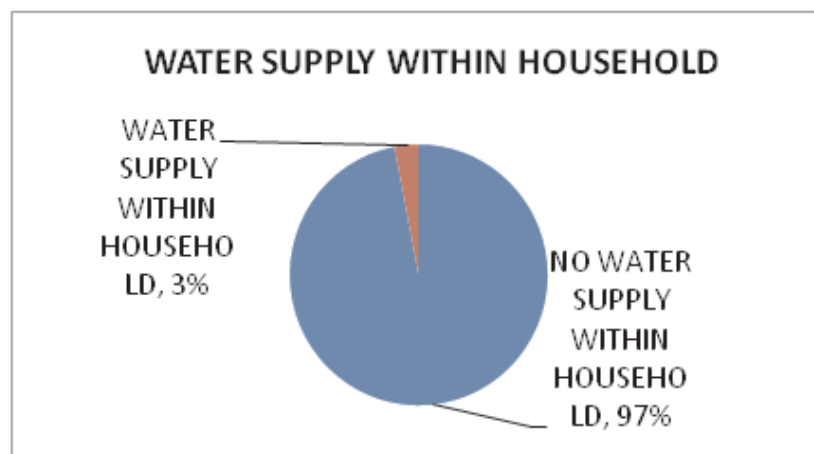


Fig.1.1

A look at the data for the different sources of water shows that municipal taps water in a public places is most used- with 68% of the households drawing on it, followed by jal board tank (32%). Most of the residents of the slum taps are the most popular source of water. Generally 2-3 tap was there in streets and different group of household used it.

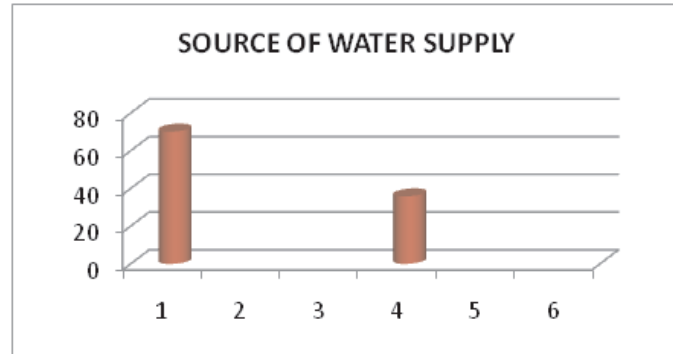


Fig.1.2

X axis-Code: Tap – 1, Hand pump-2, Bottled water-3 ,Tank-4 Tube well-5, others-6
 Y- axis % of household

7.1.1 PROBLEM FROM WATER SUPPLY

Data shows that, the big problem from water supply was short supply of water, followed by the long pressure of people, saline and dirty water. Combination of above situation makes a worst condition of water supply system in slum area. This condition would be affected to the health of poor people.

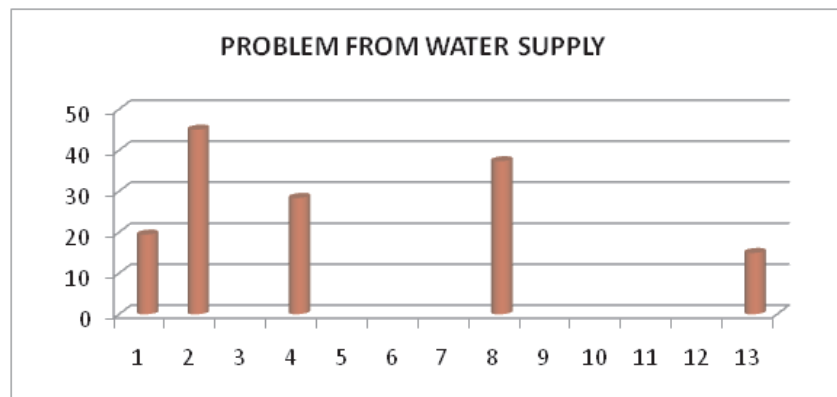


Fig.1.3

Dirty – 1, Short supply – 2, Stinking – 3, Saline – 4, Combination of above – 5, Other – 6, Broken tap – 7, Long pressure of people – 8, Low flow – 9, Pump problem – 10, Unsafe – 11, Owner creates problem 12, Wastage of water – 13, No problem – 14

7.2 Toilet facility system

This facility is one of the most essential ones indicative of the sanitary conditions of the region. 82% of the total households surveyed have not toilet facilities within the household in Nehru camp.

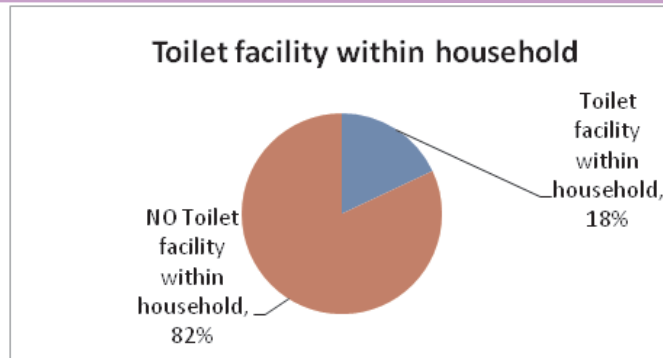


Fig. 1.4 Toilet facility

7.2.1 Toilet type:

In the study area 78% household use the sulabh shauchalya and 20% household use MCD toilet. There is 15-20 toilet seats in sulabh. But on the other hand some people said that sometime they have to go open space, because of long queue, and lack of money.

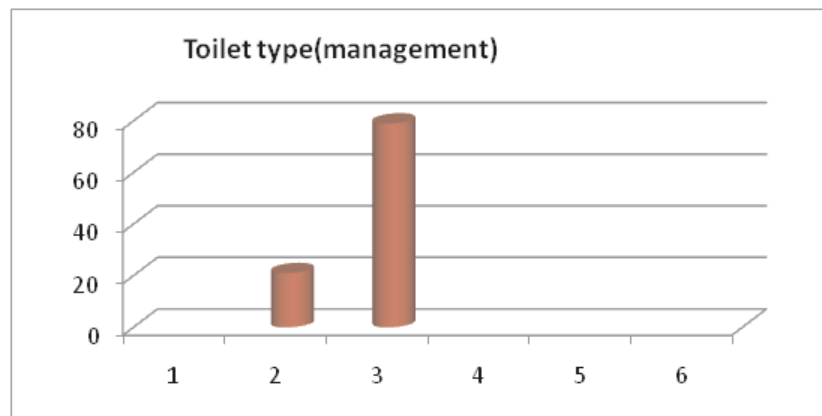


Fig.1.5

Community – 1, MCD – 2, Sulabh – 3, Neighbor's – 4, Open – 5, other – 6

7.2.2 PROBLEM FROM TOILET FACILITY

People of slum area have a lot of problem from this facility. There are long queue of people, foul smell, unclean seat, broken door, water scarcity, no light in night lack of privacy. There is overall bad condition of toilet facility. Due to uncleaning and foul smell, people have adverse effect on health. On the other hand it is not safe for women in night.

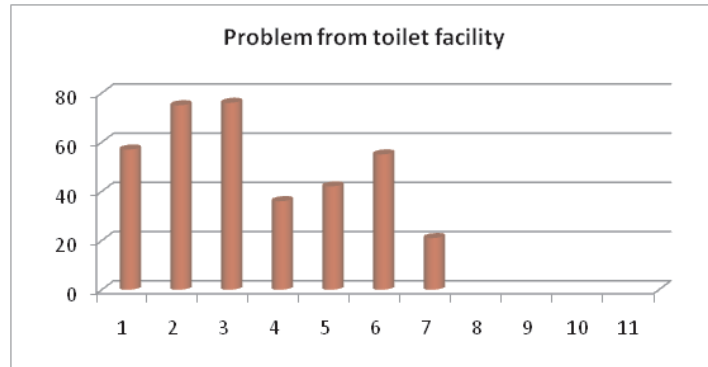


Fig.1.6

Long queue – 1, Foul smell – 2, Unclean – 3, Broken door – 4, Water scarcity – 5, No light in night – 6, Lack of privacy – 7, Smell – 8, Overall bad condition – 9, Others – 10, No problem – 11

7.3 GARBAGE SYSTEM

7.3.1 Garbage disposal:

Data shows that, 58% household used the MCD dalao for garbage disposal. 21% household disposes garbage at the street and 15% use the unorganized dalao.

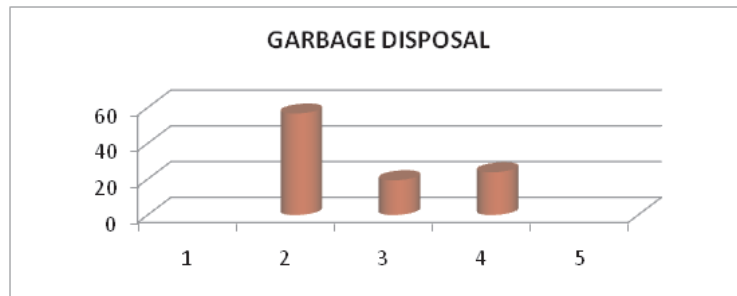


Fig.1.7

DDA – 1, MCD Dalao – 2, Unorganized Dalao – 3, Street – 4, Other – 5



Fig. 1.8
MCD Dalao

7.3.2 CLEANING OF GARBAGE:

According to household, 32% household said that it clean daily, 26% said that it clean weekly, some said it clean occasionally. It is cleaned by the MCD worker or individually. Thus data shows that the

cleaning condition in slum is good. It is clean on the daily bases or weekly.

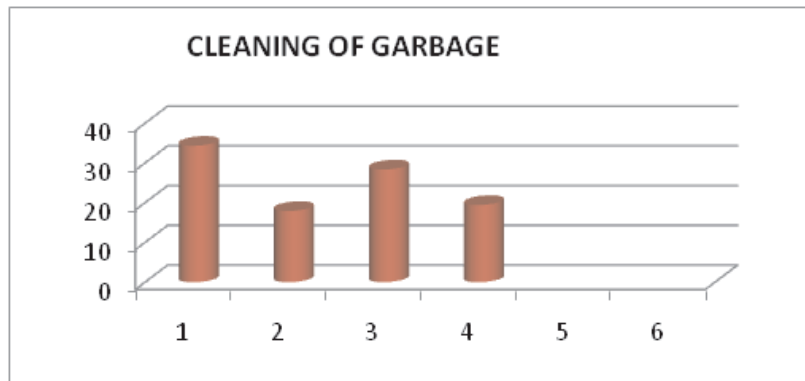


Fig.1.9

Daily – 1, Alternate – 2, Weekly – 3, occasionally – 4, others – 5, No cleaning – 6

7.3.3 COLLECTION OF GARBAGE

Generally, MCD worker collected of garbage in that area. But sometime it collected by individual.

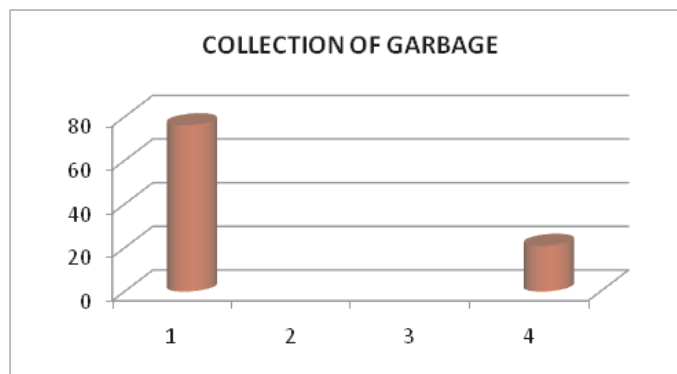


Fig.1.9

Municipal worker – 1, Private paid worker – 2, Collective – 3, individually – 4



Fig.2cleaning by MCD worker

7.3.4 REMARKS ON GARBAGE SYSTEM

Data shows that households have problem of foul smell and sprawl of garbage in that area. Due

to this problem there is found mosquito and other insect in rainy season, which is the main cause of many diseases like malaria, dengue etc.



Fig.2.1 garbage disposal site

Foul smell – 1, Sprawl – 2, Distant Dalao – 3, Ill functioning – 4, Others – 5

7.4 DRAINAGE SYSTEM:

A hygienic and sanitary environment is a prerequisite for a safe society. The sewerage or drainage facility is a basic necessity in slum. Among the ones surveyed, over 58% had an open drain system, 22% had kaccha, while the remaining possessed an underground sewer.

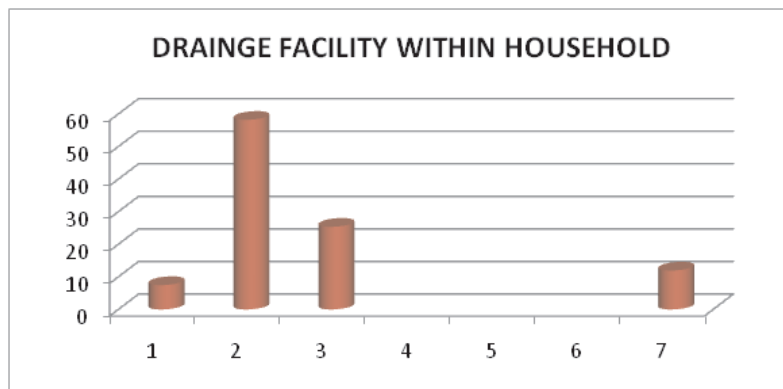


Fig.2.2

Underground – 1, Open surface drain – 2, Kaccha – 3, Soakpit – 4, Others – 6, Fair – 7



Fig.2.3 open drainage

7.4.1 CLEANING OF DRAINAGE SYSTEM

Data shows that, drainage system cleaned on the occasionally or weekly basis in around 38% household. Very few household said that, drainage system cleaned on daily basis. it mean that cleaning

of drainage system is not fair in that area.

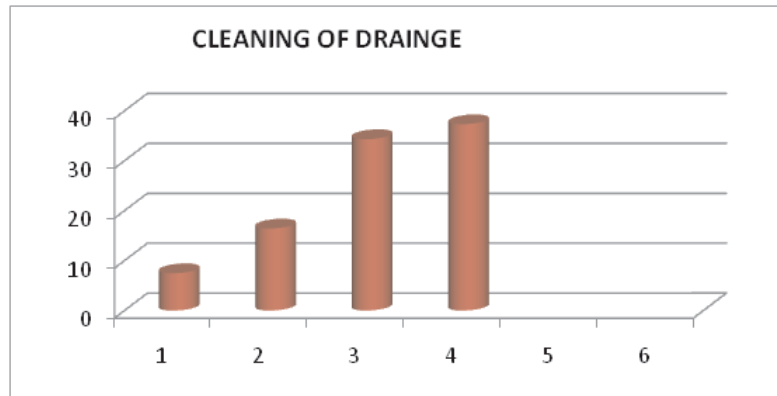


Fig.2.4

Daily – 1, Alternate – 2, Weekly – 3, Occasionally – 4, Others – 5, No cleaning – 6

7.4.2 PROBLEM FROM DRAINAGE SYSTEM:

In the surveyed area, 40% households said that there was water logging problem, 30% said there was foul smell. Spilling problem was also at there. Overall drainage system facility was in bad condition. Garbage was found in the drainage which the reason of the jamming in that area.

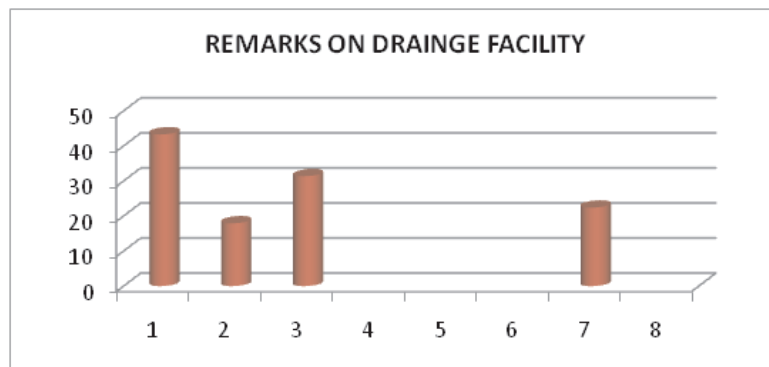


Fig.2.5

Water logging – 1, Spilling – 2, Foul smell – 3, Jamming – 4, Charges – 5, Others – 6, Bad – 7 No problem- 8



Fig.2.6 condition of drainage system

7.5 NUMBER OF PEOPLE PER HOUSEHOLD

This study reveals that 5-7 people living together at one or two rooms in maximum households. The rooms of the houses are generally very small. The kitchen is part of the living room. It means that every household was overcrowded, living condition was not good. This situation may be reason of many diseases like diarrhea, dysentery, typhoid, dengue and pneumonia etc. Lack of proper nutrition, they used to have very low immunity and thus high child death, stillbirth, blindness and physical malformation can be very common in study area.

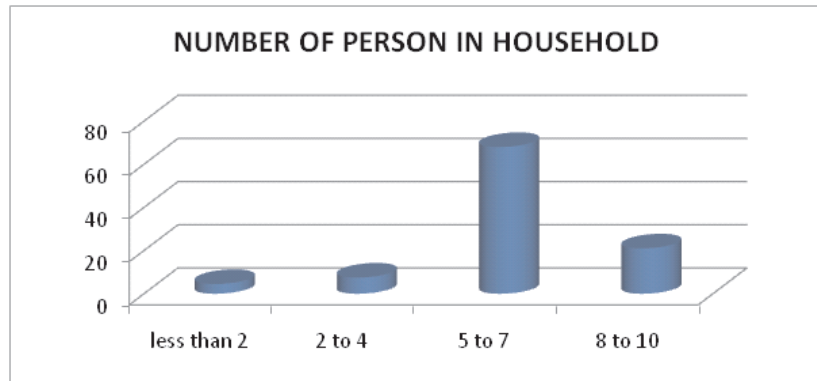


Fig 2.7

7.6 BASIC IDEA OF STUDY AREA

For this study, Nehru camp chosen as study area. It is near to Kalkaji, Govindpuri metro station.

It is one of the worst slums in Delhi; reasons of this could be pollution, filthy surroundings, high poverty, child labor, unemployment and addiction etc. There are less greenery in its vicinity and lot of dust looms in the sky all the time. The foul odour of rags dumped all over is very strong and the whole sight is very sickening. It is basically a heterogeneous community. Maximum household belong to Hindu religion followed by Christian, Muslims, Sikh and Jain.

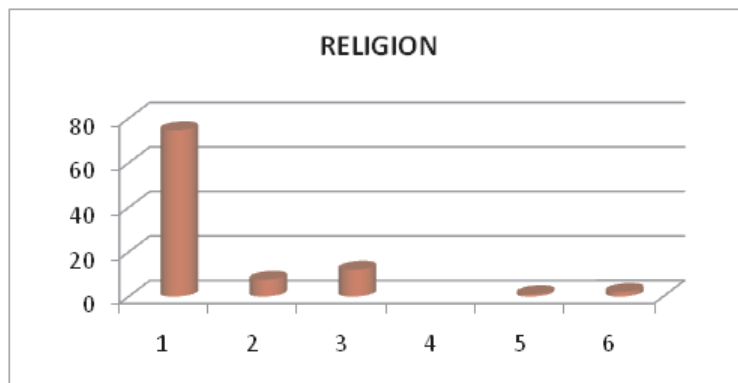


Fig. 2.8

Hindu – 1, Muslim -2, Christian -3, Buddhism – 4, Sikh – 5, Jain - 6

Most of them earn their bread and butter by picking and sorting of rags. Some are daily wage earners, street vendors, domestic helps, and many other menial jobs which are the main stay of their sustenance. Few of them are also shopkeepers, rickshaw pullers and semi-skilled laborers working in the construction sector. In the study area maximum household come under low income groups. They generally earn 2000-3000 Rs. Per month.

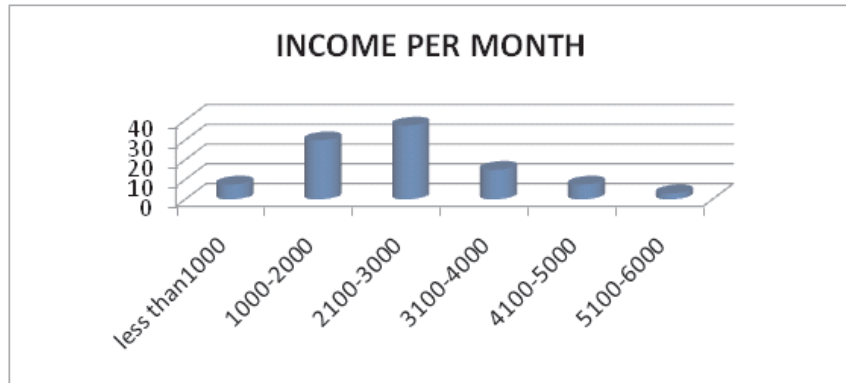


Fig.2.9

The fact remains that many of the families are unable to feed their children with the meager earnings they make. The average members per household are about seven, and all are crammed into one room for the night with hardly any ventilation in the room. As regards education is concerned, although there are two primary schools and high schools, many children don't go to schools at all. Drop out is a common phenomenon, especially among the girls. It is not due to poverty only, but due to lack of encouragement from parents, poor quality of education and a pathetic literacy level of children and parents.

CONCLUSION

Thus from the above observation carried out that the basic services like access to water, access to sanitation, structural quality of housing, toilet facility and garbage disposal system was missing or inadequate. Although the impacts of inadequate basic services on health may not be the largest itself, they become serious threats when coupled with low economic condition and nutritional deficiency. That's why lack of these services has both direct and indirect implications on the quality of life of slum dwellers. As these settlements grow larger and denser, lack of sanitation, clean water and garbage removal, in addition to congested living conditions add to the disaster vulnerability of slum dwellers; resulting in further environmental and health problems.

So for removal this condition, we have to do only smart planning for Indian cities. Where we can make slum free India

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