

# SHELTER STRATEGY FOR HOMELESS IN A MEGA CITY

## A THESIS

*Submitted in fulfilment of the  
requirements for the award of the degree*

*of*

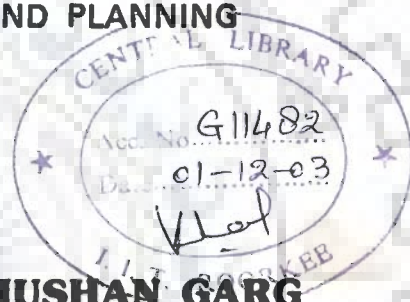
DOCTOR OF PHILOSOPHY

*in*

ARCHITECTURE AND PLANNING

By

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APRIL, 2003

## CANDIDATE'S DECLARATION

---

I hereby certify that the work which is being presented in the thesis entitled, "SHELTER STRATEGY FOR HOMELESS IN A MEGA CITY", in fulfilment of the requirement for the award of the Degree of Doctor of Philosophy and submitted in the Department of Architecture and Planning of the Indian Institute of Technology, Roorkee is an authentic record of my own work carried out during a period from July 1999 to April 2003 under the supervision of Dr. V. Devedas and Prof. (Dr.) Najamuddin.

The matter presented in this thesis has not been submitted by me for the award of any other degree of this or any other/Institute/University.

  
Ruchita BrijBhushan Garg

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This is to certify that the above statement made by the candidate is correct to the best of our knowledge.



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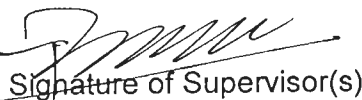
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# ABSTRACT

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An urban system comprises several interacting subsystems, such as, urban area, population, residential and non-residential units, industries, trade & commerce, infrastructure, transportation and administration, and function as an integral whole. All subsystems comprising the urban system are inextricably linked since not only are interconnected but also are interdependent. There are several segments of population confined in the subsystem, 'population'. They are High-income group, Middle-income group, Low-income group, Economically weaker section, Slum dwellers, Squatter settlement dwellers, Pavement dwellers, and Homeless persons. It has been observed that either the Government of India or the State Government of Delhi does not consider the homeless segment of the population while evolving policies or plans or programs for the development of the city, and are treated as social evils. In this present investigation, an attempt is made not only to establish the fact that this segment of population (homeless) is also a part of the system but also, to evolve shelter strategies to provide shelter for this segment of population.

An extensive literature survey was done pertaining to this investigation and observed that very less amount of work was done in this field. However, the available literature gave an insight to understand this investigation.

New Delhi city, the capital city of India is selected for conducting this investigation, since majority of the homeless persons of this city live in such a

vulnerable conditions during the foggy winter, sunny summer and the monsoon seasons that one can not even express by words.

An extensive field survey was conducted by using pre-tested schedules and questionnaires to collect the relevant required data, which comprises the socio-economic conditions of the homeless persons, place of origin, reason for migration, occupation before and after migration, their skills, period of stay as homeless, place of defecation, bathing, place of staying, remittances, expenditure for survival, savings, sources of loan, priority in life, willingness to have shelter, affordability to shelter, etc. To organize the survey, suitable sampling techniques, such as stratified random sampling and simple random sampling have been employed to select the required number of respondents for conducting this investigation. There were 306 samples selected and conducted the investigation. Tabulations along with percentage analytical work was done by grouping the respondents based on several income classes. The following interesting points have been observed from the analysis. They are:

- Present shelter strategies for the homeless are inadequate
- The situation in Delhi provides the basis for a good case study.
- The characteristics of the homeless persons in Delhi city are poorly considered during the process of plan formulation and implementation. Virtually, they are invisible to decision-makers.
- The homeless are not seen by decision-makers as part of the urban system.



System concept is employed in this investigation to establish the fact that this homeless segment is also a part of the system though the Government neglects them. Theory of hierarchy of human needs is employed in this investigation to understand the level of satisfaction or the level of achievement of this particular segment of the population.

A multiple regression model was evolved by considering the following variables, such as, affordability level of the respondents towards shelter, income, expenditure on basic needs, expenditure on entertainment, remittances, age of respondents, and the period of staying in the study area. Among these variables, affordability is considered as dependent variable ( $y$ ), and the rest are considered as independent variables ( $x_1, x_2, \dots, x_n$ ). This model was used to calculate the affordability level of various income groups of homeless persons towards shelter, and the results are quite interesting. The regression results clearly show that the affordability level of different income groups. Based, on the affordability level, different types of feasible (cost effective) shelter strategies are evolved for providing shelter to the homeless persons of the study area. The study conclude with, plausible and more constructive recommendations to provide affordable shelter to the homeless persons in the study area.

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This is a narration of my experiences, dealing with the problem of homeless persons. I made an attempt for defining the shelter strategies for homeless in a mega city and compiled my studies in the form of this thesis. It would have not been possible for me to make it without the support of some of the excellent people, whom I met during this course of time. I take immense pleasure in placing on record my gratitude and thanks to:

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## GLOSSARY OF TERMS



Bazaar	-	Market
Basti Vikas Kendra	-	Community Halls
Balwadi	-	Play School for small children
Dhabas	-	Roadside eating place
Dhalaos	-	Built area to collect garbage
Dharna	-	Protest sit-in
Goondas	-	Ant-Social Element
Jan Suvidha	-	Community toilets
Jhuggi Jhompri	-	Huts in squatter settlements
Jhuggies	-	Many huts
Katras	-	Housing in old city of Delhi
Hafta	-	Bribe Paid on weekly less
Marg	-	Road
Pradhan	-	Leader
Piao	-	Drinking water facility provided by different social organization at various public places
Raen Baseras	-	Night shelter
Rehris	-	Vending Carts
Richshaw wala	-	Person Playing richshaw
Shishu Vatikas	-	Tot - lots (small play area for children).
Sulabh Suchalayas	-	Pay and use toilet
Thela	-	Handcart
Thiya	-	Place of business
Thiya wala	-	Owner of a place of business.

## A PERSPECTIVE ON HOMELESSNESS

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### 1.1 INTRODUCTION

A house is a place where one can rest, seeks shelter from natural and artificial hazards. House is very much responsible for the development of an individual. It is a place where person born, grow with various activities concerning living. A major part of one's life is spent in the house. "A good house is essential for decent living, which plays a great part in providing convenience in the performance of daily chores of life for comfortable living. It has great significance for promoting social well being and good neighbourliness"<sup>(65)</sup>. In a house, when a person grows, the available elderly members of the family teach discipline, extend love and affection, devotion, friendship, co-operations, etc., to the child from the childhood itself, which nourish the child to become a well-disciplined asset of the society.

Unfortunately in India, millions of people live without home or shelter. They live on streets, railway stations, parks, under the bridges, flyovers, bus stands, etc. During rain, they run to stand under eaves, in summer they rest in shades, and in winter they hurdle around the street corners.

Homelessness is not only related to urban poor but also it is strongly related to the socio-economic and cultural development of the urban system. The increase in the number of homeless persons in the particular urban system

reveals that the particular urban system has numerous amounts of socio-economic, and cultural evils on one hand, and the same socio-economic, and cultural evils continue perpetually on the other. In case the number of homeless persons who live in the particular urban system is gradually decrease in number, it reflects that the socio-economic conditions of the particular city is improving considerably, i.e., the existing homeless persons could have shelter due to increase in their income. But at the same time, when the city's socio-economic condition is improved considerably, migration takes place to the particular system, which leads to further increase in homelessness. Therefore, homelessness becomes a perpetual phenomenon in the urban system of the developing countries.

Large cities offer work to the uneducated and unskilled migrants, no matter how low paid the jobs might be. As a consequence, movement of people to urban areas accelerates and the city's growth is often erratic, unable to cope with high rate of migration. For city dwellers, the arrival of new migrants may mean a deterioration in the quality of life, but to the migrants the move to the city constitutes the availability of income earning opportunities that were scarce in the native place. It has been well established that the majority of persons migrate to urban areas because they perceive an opportunity to earn a living. In order to be close to their work place, a large number of them end up on pavements near the city centre.

There are about 100 million homeless persons live on pavements around the world. In India, almost 2.03 million people belong to this group. Of which,

majority of them live in mega cities like Kolkatta, Mumbai and Delhi. Among these cities, Kolkatta city has more number of homeless persons, i.e., 55,713. Followed by, Mumbai has 48,529 persons and Delhi has 26,870 persons. <sup>(22)</sup> It has been observed that in Mumbai and Kolkatta cities, from three to four generation's people are living as homeless on pavements, and other open spaces, while in Delhi city it is the first generation.

The United Nations had evolved- two types of approaches, such as, people-centered approach and housing-centered approach to end homelessness. The people-centered approach urged government to provide emergency shelter and a variety of social services to aid the homeless people, while the housing centered approach emphasized the importance of providing long term housing subsidies and removing regulatory barriers to the construction of a wide variety of shared housing arrangements. "Plans to care for the homeless usually combine both in a three-tiered approach. First, emergency shelter and basic services take the homeless person off the street. Second, transitional housing offers social services, employment training, public aid, and from six months to two years of secure housing in a shared-living environment to equip the homeless people for independent living. Finally, in the third step, the shelter residents moves into his or her own low rent rental dwelling, receiving occasional support services to cope up with unexpected emergencies"<sup>(25)</sup>. Most provisions and care for the homeless have come through the efforts of local government.

## 1.2 GLOBAL PERSPECTIVE ON HUMAN SETTLEMENT

About one billion human beings across the globe are estimated to be living without adequate shelter by the year 2001. Looking at the present trend of population growth and urbanization, this number may increase to two billion in next 20 years<sup>(14)</sup>. This has put the world community on alert, and led to few milestones in the field of housing and human settlements. They are, the first (i) Habitat: United Nations Conference on Human Settlement in Vancouver, May 1976, (ii) International Year of Shelter for the homeless, May 1987, (iii) Global Strategy for Shelter to the Year: 2000, December 1988 (iv) the adoption of Agenda-21 by the Earth Summit in Rio-June 1992, (v) Habitat II- the second United Nations Conference on Human Settlements held at Istanbul, Turkey-June 1996. The major theme discussed on these events were related to adequate shelter for all, and sustainable development of human settlements. It stressed for improving the quality of life within human settlements, by giving priority towards homelessness, increasing poverty, unemployment, social exclusion, family instability, inadequate resources, lack of basic infrastructure and services, lack of adequate planning and environmental degradation. The aforesaid conferences suggested that there is an urgent need for improving the condition of people staying in urban areas <sup>(100)</sup>.

Vancouver Conference (1976) was a turning point in the history since all member states of the United Nations agreed to have a common agenda, i.e., development of human settlement. This represented a strategic shift from the earliest sectoral approach to a broader holistic concept related to a new and then

emerging notion of development, i.e., better living environment for all. The Vancouver Action Plan resulted in a serious call for government action and international donor support for improving the housing and infrastructure condition of the poorest families in developing economics.<sup>(82)</sup>

The agenda of the conference also include to decide on the appropriate institutional arrangements to make the United Nation systems more responsive to the challenges posed by the human settlement development, particularly in the developing counties. In 1978, United Nations Centre for Human settlements (Habitat) was established in Nairobi, Kenya, to act as the focal point to draw international attention on shelter and associated human settlement needs. Since its establishment, it started to act as the secretariat of the United Nation commission on human settlements, and as the executor of an integrated program, including research, technical cooperation, and information dissemination for the development of the homeless persons.

In 1987, the General Assembly of the United Nations proclaimed that the year 1987 as the International Year of Shelter for the Homeless (IYSH) with a view to attract the attention of the International Community towards the need for shelter in the developed and developing countries. For the first time, it truly marked the global reorganization of the plight of the millions of people without home - the homeless, **those who sleep on doorways, subways and below recesses of public buildings**<sup>(83)</sup>.

The major component of the International Year of Shelter for the Homeless Programme is "to stress the need for every nation to draw up a



comprehensive shelter strategy that could direct activities at both the national and international level towards improving the shelter and neighbourhood of their poor and disadvantaged people by the year 2000". The most important elements of such a strategy are.<sup>(87)</sup>

- Recognizing the problems establishing realistic goals and objectives
- Securing political commitment at every level.
- Making financial resources available.
- Taking care of the necessary institutional matter.
- Solving technical and structural problems, and
- Choosing and developing appropriate techniques.

The International Year of Shelter for the Homeless created global awareness by bringing shelter to the centre stage, followed by the Global Strategy for Shelter in the Year 2000, adopted by the General Assembly of the United Nations in December 1988, provided in the hands of government, a concrete plan of action for mobilizing resources from the private sector, such as, the local authorities, non government organization, community based organization, and the individual to achieve adequate shelter and better living environment to all. It calls for "adequate shelter for all by the year 2000"<sup>(83)</sup>

At the global level, various countries started to evolve policies, and programs for the development of the homeless persons based on the United Nation conference on Human Settlement 1976. Subsequently different organizations, such as, Habitat International Coalition, Interagency Council on

the Homeless, the National Alliance to end homeless, the National Coalition for the homeless, the Partnership for the Homeless, etc, were started for the development of this particular segment. In the United States, the United States Government has passed the Stewart B. McKinney Homeless Assistance Act in 1987 to provide homes to the homeless. This act treated homelessness as a crisis and evolved programs for the development of the homeless persons.

The government of India unveiled the National Housing Policy in the year 1988, having the aims at eradicating homelessness by the turn of the century by wiping out the existing housing backlog and enacting additional households to secure for themselves housing at least as per the minimum housing norms, since India has acute housing related problems. The National Housing Policy (1988), had the following objectives:

- To help every family to own Affordable Shelter by 2001.
- To encourage people to build and improve their own housing.
- To promote repair, renovation and upgradation of existing housing stock.

The policy defined the new role to be adopted by the Government as an Enabler instead of a Provider. The policy recognizes the slums and squatter settlements as a large reservoir of low quality housing stock, even a sizeable portion of which cannot be substituted by conventional housing in the foreseeable future. Therefore, facilitating and upgrading of environment, physical condition and economic status of slums and slum dwellers are clearly stated in the objectives, priorities and strategies of National Housing Policy. Later, the

National Housing Policy has change the polices and given much emphasis towards private participation in housing related activities.

To provide an appropriate platform for technology transfer and its application in the shelter sector and promote commercial production of innovative materials, the Building Materials and Technology Promotion Council (BMTPC) was set up with a network of Building Centres. Experimental Housing projects were undertaken by the National Building organization (NBO) in different geo-climatic conditions and Non Governmental Organization (NGO's) were also involved in supporting the government effort. The National Housing Policy 1988 did not fulfill the objectives fully, so that the Government of India unveiled a new National Housing Policy in the year 1998.

Although this policy did attempt to influence the government to create a facilitating environment specially in encouraging the entry of private sector but by and large the efforts remained more or less half hearted. The National Housing Policy 1998 aims at to encourage private and cooperative sector participation in housing, keeping in view the requirement of large investments to overcome enormous shortages in the housing sector and the need for more concerted and focused attention on the poor and the deprived. The National Housing Policy 1998 has the prime objective of ensuring the basic needs "**Shelter for all**"<sup>(47)</sup>.

In the National Housing Policy, 1998, the important thrust is directed towards housing solution of priority groups, SCs/STs, disadvantaged groups like the disabled, free bonded labourers, slum dwellers and households headed by

women and people below the poverty line-group whose needs otherwise may not get effectively met by market driven forces.

To fulfill the objectives of National Housing Policy, at the national level, the Union Government is expected to ensure easy flow of resources to the housing and habitat (including the creation of the secondary mortgages facilities) purposes, to provide fiscal concessions. The State Governments have been asked to liberalize the legal and regulatory framework to promote a large-scale private initiative and cooperative activity and to define the specific role of public and private sectors to boost housing activities. They were also asked to empower the local bodies to take full potentials of 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendments to discharge their development functions. The last tier of governance, the local authorities have been entrusted with another set of responsibilities, specially to identify housing shortage at their areas of jurisdiction, prepare housing action plan, and device strategies to meet the housing shortage (particularly to supply land for housing), etc <sup>(48.)</sup>.

Apart from the above, the public agencies like Housing Boards, Development Authorities and Corporations have been asked to be more responsive in meeting the housing needs of poor and vulnerable groups. These agencies are asked to restructure their organizations to eliminate dependence on government for budgetary support by devising their own strategies for sustenance. It has been observed from the existing literature, pertaining to the housing stock, demand and supply of housing, etc., that the housing problems in India is aggravating day-by-day<sup>(49)</sup>.

It has been observed from the literature that several distinguished Authors have mixed the terms of housing, squatter, slums, pavement dwelling, and homelessness. Therefore, the Investigator has analyzed the various definitions of each category, such as, housing, slum, squatter settlements, pavement dwelling and homelessness to differentiate the homelessness in this present investigation. They are:

### 1.3 HOUSING

There appears to be no general consensus about the term 'housing'. Few most important definitions of various distinguished Authors and noted agencies are analyzed as below:

- (1) According to an expert group of United Nations (1962), "Housing is not only 'shelter' or 'household facilities' above that comprise a number of facilities and utilities which link the individual and family to community and community to region in which it grows and progress"<sup>(8)</sup>.
- (2) According to the World Health Organization (1964), "It is the residential environment, neighbourhood, micro districts or the physical structure that mankind uses for shelter and the environs of that structure including all necessary services, facilities, equipment and devices needed for the physical health and social well being of the individual"<sup>(9)</sup>.
- (3) According to a group of social programming of housing in urban areas of the United Nations (1970), "In the fulfillment of social needs, housing plays both direct and indirect roles and both roles are decisive. In the direct role,

housing serves as the area where the individual becomes capable of experiencing community and privacy, social well being, and shelter and protection against hostile and physical forces and disturbances. In its indirect role, housing serves as the area where abundant supply of social relationships and services are accessible, such places are for social intercourse, education, recreation, sports, social welfare and health protection services, shopping and transportation.” The concept of housing encompasses community facilities as well as social amenities and should receive equal or greater attention than the housing unit itself<sup>(10)</sup>.

- (4) According to Mathur (1978), “A house can be defined as an organisation of physical elements enclosing a part of space, to be suitably useful for living. It is a space where man can move freely within and between physical setting to satisfy not only his hunger, thirst, sex and similar biological needs but also his needs for affiliation, achievements, success and other social motives. A good house is essential for decent living, which plays a great part in providing convenience in the performances of daily chores of life for comfortable living. It has great significance for promoting social well being and good neighbourliness”<sup>(66)</sup>
- (5) According to Walter Gropius (1964), “Housing, the most urgent and also the most complicated building problem, illustrates this statement (most delay in the progress of modern building is caused by lack of unification): today, the main task of the building profession-socially and technically-is to build up an adequate services to provide sufficient, decent, up-to-date

dwelling for the community. These buildings, which have to satisfy the material and psychological requirements of life, must be constructed at the lowest possible expense of time and material, and at the price the average man can afford".<sup>(18)</sup>

- (6) According to D. M. Calderwood (1964), "the residential area is the locality in which the people spend most of their time and it is, therefore, important that it should receive planning consideration it deserves. In planning two major aspects have to be considered: the interior space of the dwelling, and the external spaces covering the demand of the family in the immediate vicinity of each house. In housing the provision of good ventilation, sunlight, sanitation and hygiene is of major importance from both health and comfort aspect. Housing is not just houses, and when the attention is drawn to the residential areas with its schools, churches, shops, clinics, parks and recreational grounds, the full benefits of housing in relation to health and human comfort will be appreciated. Not providing proper housing is to treat man like a desert where erosion is allowed to develop unchecked until it is beyond reclamations"<sup>(17)</sup>.
- (7) According to D. M. Calderwood,(1964), " provision of sound houses in an environment in which people can live full and happy lives"<sup>(17.)</sup>.
- (8) According to a National Meeting on housing held in Calcutta (1986), "Housing is not just the buildings that we see around us, it is not merely four walls and a roof. To be complete it must have access to the basic things that sustain life. This includes proximity to where a person can find

work, a safe and healthy environment, and access to basic necessities, such as, fuel and water. Good housing ideally provides a base for free and equal relationships between individuals and for individuals to build society.<sup>(101)</sup>

## 1.4 SLUMS

Various distinguished Authors have published literature on slums, but the definition of slum varies from one Author to other. Therefore, the Investigator analyze the definitions of various Authors who discussed about slums, and are presented below:

- 1) According to the Government of India Section 3 of the Slums Areas (Improvement and Clearance) Act, India, 1956, defines slums as areas where buildings:
  - i) are in any respect unfit for human habitation.
  - ii) are by reason of dilapidation, over crowding, faulty arrangement of streets, lack of ventilation, light or sanitation facilities or common combination of these factors which are detrimental to safety, health and morals.
- 2) According the to Census of India, (2001), "A slum is a compact area of at least 300 population or about 60-70 households of poorly built congested tenements, in a unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities.



- 3) According to the National Slum Policy of India (2001), "all under-serviced settlements, be they unauthorized occupation of land , congested inner-city built-up areas, fringe areas, unauthorized developments, villages within urban areas and in the periphery, irrespective of tenure or ownership of land use, come under the definition of slum/ informal settlement; while taking into consideration economic and social parameters (including health indicators ) as well physical conditions<sup>(42)</sup>.
- 4) According to the United Nations (1982) slums is "..... a building, group of buildings, or area characterized by overcrowding, deterioration, unsanitary conditions or absence of facilities or amenities which, because of these conditions or any of them, endanger the health, safety or morals of its inhabitants or the community."<sup>(99)</sup>

Obviously, this is a broad definition giving scope to cover any living environment, which is slum-like, Bergel attempted to offer a more restricted definition of a slum, which is at variance with the one quoted above.
- 5) According to Bergel, (1955). "slum, may be characterized as areas of sub-standard housing conditions within a city. A slum is always an area. A single neglected building even in the worst stage of deterioration does not make a slum".<sup>(7)</sup>
- 6) According to Bhattacharya (1996),"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 inadequate light and air and toilet and bathing facilities, that are in bad repair, damp and improperly heated, that do not afford opportunity for family privacy; that are subject to fire hazards and that overcrowd the land, leaving no space for recreational use.”<sup>(12.)</sup>

- 7) According to Bhattacharya (1996), "Slums provide very little living space per person. The occupancy rate of slum dwelling unit exceeds five persons against the national average of 2.4 persons, and international standards of 1 person per habitable room. Therefore, rooms are overcrowded, which is unhealthy"<sup>(13)</sup>.
- 8) According to Birdi (1995), "Slums have been defined as poverty areas, run-down, overcrowded, inhabited by persons who are not acceptable in other areas, characterized by unsanitary surroundings, high death rate, and high delinquency and crime rate"<sup>(15)</sup>.
- 9) According to Jhon. R. Seely, (1955) "slum is a physical manifestation of struggle for shelter, and points out that slum is not just a dumping ground, nor just a way station in the city, but is a provider of goods and services that are demanded by the non-slum population; slum dwellers render services to the non-slum communities. Further, he defined slum as an area of self- generating communities who strive to achieve a stable social life by adopting themselves to congestion, insanitation and scant basic services."<sup>(86)</sup>

## 1.5 SQUATTER SETTLEMENTS

Squatter settlements can be narrowly defined as “aggregates of houses built on lands not belonging to the house builders but invaded by them, sometimes in individual household groups, sometimes as a result of organized collective action.”<sup>(53)</sup>

“Squatter settlements are gradual encroachments or unorganized invasions of vacant land by the low-income families who would otherwise not have a place to live. In some cases, the land occupation may be free of any charge, in many other cases; however, the squatters have to pay protection money to the middlemen or representatives of law”<sup>(54)</sup>. The other terms used for squatter are: autonomous settlement, spontaneous settlement, extralegal settlement, informal settlement, unplanned settlement, irregular settlement, shanty settlement or marginal settlement. It has been observed from the literature that various Authors prefer the local names for such settlements: Favelas (Brazil), Barriadas (Colombia, Panama, Peru), Barrios Piratas or Clandestinos (Colombia), Bustees or Zopadpattis or Jhuggi Jhompri (India), Katchi Abadis (Pakistan), Kampung (Indonesia), Bidonvilles (Morocco), Goubivilles (Tunisia), Barong-Barong (Philippines), and Gecekondu (Turkey).

Housing in squatter settlements is substandard, because the settlements lack security of tenure and basic infrastructure services. The housing in squatter settlement is often of a low quality because the occupation is unauthorized, security of land tenure is absolutely nil, and the squatters are reluctant to invest money in their housing. The squatters are unable to construct roads, drainage,

and sewerage network and the Authorities consider the settlements illegal, as a result insanitary conditions often prevails.

The locations of squatter settlements depend on the availability of land and location of employment opportunities. They try to locate themselves on lands, which are least in demand for uses in the urban property market. These are marginal lands on the floodable banks of rivers, along the embankments of foul drains, along railway lines and next to garbage dumps. These locations, inherently, are environmentally hazardous.<sup>(63)</sup>

Houses in squatter settlements are built entirely by the occupants through self-help. The family occupies a small piece of land and builds a simple structure, usually not more than a hut of temporary materials. If the landowner or the Authorities do not demolish the structure and evict the occupants, the family gradually improve its shelter and other families may settle next to them. A growing population and a gradual consolidation of the houses make it increasingly difficult for the Authorities to remove the settlements. These makeshifts structures provide them shelter but no housing.

## **1.6 PAVEMENT DWELLERS**

Pavement Dwellers are those who build their shelters by using temporary materials like small shack on roads and footpaths, often against the wall and fences of adjacent buildings. It is easy to put up structures, but easier to dismantle them especially when the occupants are apprehended by the enforcement Authorities, but that rarely happens.<sup>(53)</sup>

Pavement dwellers are radically different from what people generally understand slums to be. They are not the squatter settlements, which spring up on vacant lots or stretches of land, but hutments actually built on the footpaths/pavements of city streets, utilizing the walls or fences which separate building compounds from the pavement and street outside.<sup>(76.)</sup>

They can be seen in most large cities in India but are mostly concentrated in Bombay and Calcutta. According to the Society for the Promotion of Area Resource Centres (SPARC) (1977), in one ward of Bombay, almost all the families have been living on the pavement ever since their arrival in Bombay – which could be as much as 30 years old. It has been observed that in a sample of 375 pavement dwellers, half lived in huts of less than 5 square metres. Given the size of the hut, the pavements in front of the shelter becomes an important part of the domestic space and is where most children eat, sleep, study and wash. About two-thirds of them had their names even in the electoral roles<sup>(76)</sup>.

In Bombay, a metropolitan city of India, Pavement dwellers do not occupy their footpath shelters by free of cost. Many of them have to 'pay' as much as Rs. 2,500/- to local musclemen in exchange of 6 feet stretch who 'control' certain pavements. The cost of plastic sheets, card boards, wood or canvas to construct the actual shelter, which could be another Rs. 500/- or so, have also to be borne by the dweller. Pavement families pay a 'rent' of upto Rs. 50/- per month for the privilege of residing there. In addition, the majority of pavement dwellers pay for basic amenities like water and toilets<sup>(77)</sup>.

Being on the pavements, the homeless have always been treated as law offenders. In Bombay, the main legal instrument used in their removal was the Bombay Municipal Corporation Act of 1888, Section 61(D), which made the removal of 'obstruction, and projections in or upon streets, bridges and other public places' one of the "Obligatory and Discretionary Duties of the Corporation". The pavement dwellers could never take recourse of the law, despite periodic evictions<sup>(102)</sup>.

## 1.7 HOMELESS

It has been observed from the literature that no much work was done in this particular field of learning, i.e., the homeless groups. Therefore, many definitions are also not available in literature. However, the available definitions are considered in this investigation.

As per the "Census of India (1961), "the homeless under the phrase 'Houseless population" is the person who are not living in "census houses". A 'census house' is referred to a "structure with roof". Houseless population represents those who have no fixed place of residence and no regular house to live in. This includes beggars, sadhus, nomads, mendicants, vagrants, vagabonds, tramps, etc., and also people living in boats, playing on rivers, canals or lake. All such persons are enumerated in its decennial census and gives enumerators three weeks time to locate the houseless population who they will count on the night of the census"<sup>(22)</sup>.

1. As regards the homelessness the definition varies from country to country. In the past, the United Nations has developed a set of definitions on homelessness. The expression, "Homeless Household" refers to households without shelter. They carry few possessions with them sleeping in the streets, in doorways or on the piers, or in any other space on a more or less random basis"<sup>(98)</sup>.
2. According to the United Nations (1987), "The homeless of the Indian earth have no solace of a roof nor a spot to sit, eat, sleep or die" <sup>(98)</sup>.
3. According to Stewart B. McKinney Homeless Assistance Act (1987), homeless mean: " An individual who lacks a fixed, regular, and adequate night-time residence". <sup>(98)</sup>
4. According to Charles J. Hoch (1994), "Homeless people lack regular, private access to conventional housing. This includes people sleeping on sidewalks, in parks, in public places, and in emergency shelters. Homeless people do not possess the social power and standing to define their own identity"<sup>(27)</sup>.
5. According to Desai and Pillai (1972), "People who live somehow under roadside trees, in the unnoticed corners of parks, under over bridges, in the space left between roads-in sort wherever possible". By definition it has no stable address, no ration card (which in many parts of India is much more than an instrument to access subsidized food, it has become a de facto identity card), they usually does not appear on any voting lists".<sup>(37)</sup>

6. According to P.K. Muttagi(1988), “the homeless has no cooking facilities, no place to take bath or wash clothes and, utensils, no adequate place to relax, no water and latrine facilities, and not even a residential address. While they have abundant and free access to the open sky, they are exposed to the elements of nature by way of wind and air, sun and rain”<sup>(69)</sup>.

More than any other category of the population, homeless appear to be living in condition of acute deprivation from shelter and basic services, and it is no surprise to learn that “they are the unfortunate victims of diverse kinds of physical and social crisis among the rural and urban societies”<sup>(58)</sup>.

In this particular Investigation, “homelessness can be broadly defined as the condition of having no access to shelter. This include people who live in various open spaces, such as, pavements, in front of the shop's door ways, verandahs, public places (parks, play grounds, etc), under trees, flyovers and bridges, abandoned large pipes, courtyards of religious places, on rickshaws or on hand carts, which they pull during the day time, or in public buildings (in railway stations, metro stations, bus stops, etc), or in the night shelter, which provide a sleeping place. The people in most vulnerable position, who are forced to carry all their meager belongings along with them, as they have no place to keep them”.

It has been observed from the aforesaid definitions, which include housing, slums, squatters, pavement dwellers and the homeless personals, ‘housing’ has separate identity, while the slums, squatters and the pavement dwellers together formed a very closely related separate identity, and the



homelessness form another separate identity. In housing, it satisfies almost all the requirement of mankind for living, while the slums, squatters and the pavement dwellers are having something to survive, but the homelessness groups have nothing for their survival either on rental basis or from charity. Further, the homelessness group is having absolutely different characteristic feature from the other identified segments, such as, housing, slums, squatters and pavement dwelling. They are:

1. The homeless group does not have any form of shelter whereas the other groups have shelters. The homeless groups are exposed like a stone/log on the public places, whereas the other groups have something over them while this sleep. Fig. 1.1 and 1.2 show the homeless person's living conditions within study area.
2. The homeless group do not have a place to go back after their work, whereas the other groups have something.
3. The homeless group has to carry their belongings along with them all the time irrespective of wherever they go and what ever work they engage, whereas the other groups have some place for the same.
4. The homeless personals, generally, do not live with their family personals since no place to stay together, whereas the other groups generally live together since they have place to stay together.
5. The homeless groups do not have identity at all, while the other groups have identity in the form of ration card, and voting power, etc., which provide citizenship.



***Fig.No.1.1 Homeless in Delhi City***





***Fig. No. 1.2 Homeless in Delhi City***

## 1.8 PROBLEMS OF HOMELESSNESS

The homeless persons are generally undergoing several kinds of torture, which include social, economic, environmental and so on. The notable problems are listed as below. They are:

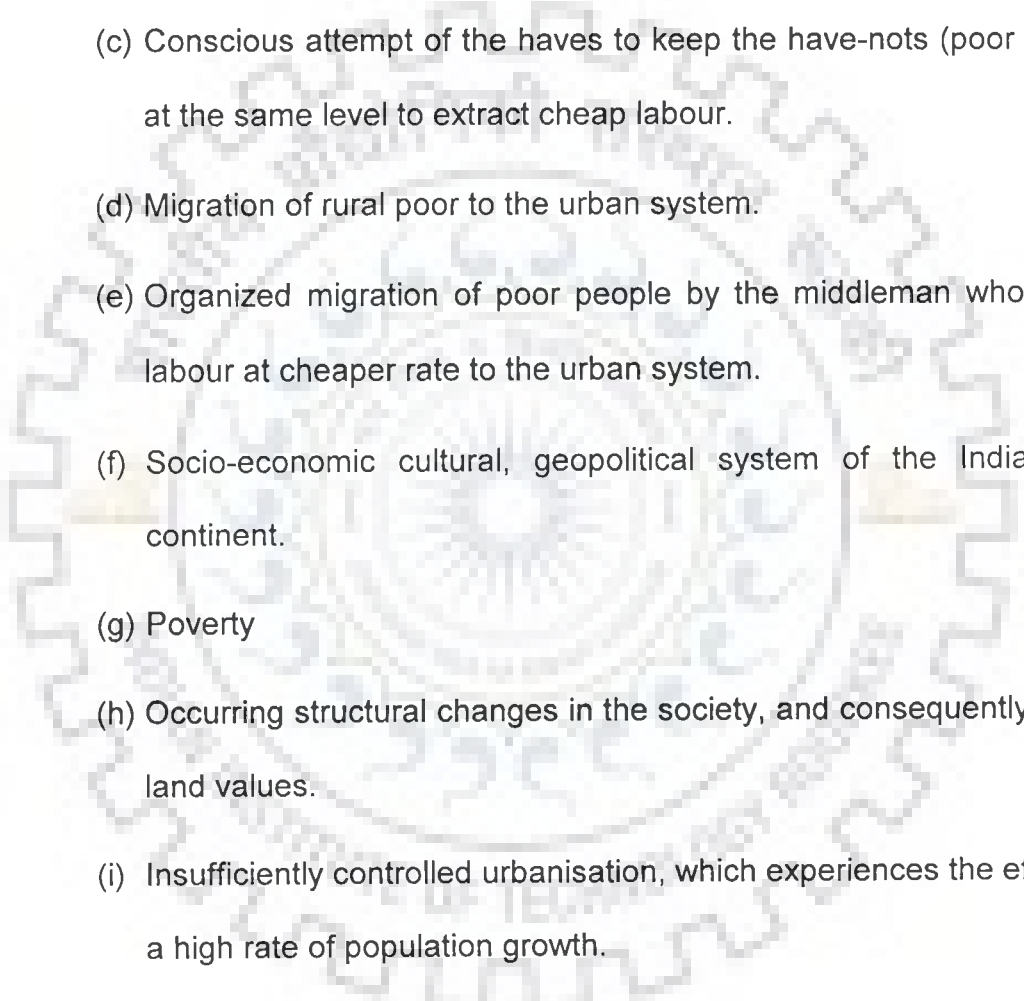
1. Lack of identity
2. Living in extreme poverty stricken condition, extreme intolerable weather conditions, extreme social apathy, extreme worst conditions of health, and hygiene, etc.
3. Living under the pressure of local policeman, local criminals, etc.,
4. Living without adequate basic services, etc.,

## 1.9 REVIEW OF LITERATURE

In fact, less work have been done and published in this particular field of investigation, i.e., pertaining to homeless persons. The available literature in this field are collected, analyzed thoroughly and observed the following:

1. The homeless never have any kind of shelter for their day-to-day living. They live under rail/road bridges, flyovers, culverts or even in the huge cement pipes lying around in open space until the pipes are put to use (38,84,52,33). It has been also observed that some of them live even on the middle of the road during the night, when no vehicle moves on the road (38).

2. It has been observed that the number of homeless persons available in the urban system is in increasing trend in several cities of India (84,20). It has also been observed that it is increased in the study area to the large extent, i.e., in 1961 it was 6216, and in 1991 it was 26870, which is more than 432 per cent increase (20).
3. It has been observed that the homeless persons do not form a single homogeneous group (70). There are two groups of homeless available in the system. They are (84).
  - (i) The first group consists of vagabonds, mendicants, mentally retarded, orphans, destitute, beggars, etc.
  - (ii) The second group consists of able-bodied migrants who work in the city, barely meeting their survival needs.
4. It has been observed that homeless people are occupying the vacant land of the city to the large extent.
5. It has been observed that few homeless persons violate the penal statutes (84,80,33). Often, they indulge in criminal activities, consume prohibited liquors, and create nuisance to the society. They engage even in group fights on the pavements (33). The children who grow in these environments also develop the same culture and attitude, and finally engage in antisocial activities (33).
6. It has been observed that the homeless are created due to several reasons (29,84). They are:

- 
- (a) Extreme concentration of wealth and resources in the hands of a few at various levels resulted into formation of homelessness and poverty.
  - (b) By over consumption and waste of scarce resources by a segment of population, i.e., haves (rich people) of the society.
  - (c) Conscious attempt of the haves to keep the have-nots (poor people) at the same level to extract cheap labour.
  - (d) Migration of rural poor to the urban system.
  - (e) Organized migration of poor people by the middleman who supply labour at cheaper rate to the urban system.
  - (f) Socio-economic cultural, geopolitical system of the Indian sub-continent.
  - (g) Poverty
  - (h) Occurring structural changes in the society, and consequently raising land values.
  - (i) Insufficiently controlled urbanisation, which experiences the effects of a high rate of population growth.
  - (j) High increase in population growth needs more amount of money for social sector development. The developing country like India do not have financial resource for even fulfilling the stomach of the poverty stricken people. Under these condition, not much money is available to spend for the other basic need like shelter to all.

7. It has been observed that in Delhi city the homeless persons are engaged in various jobs (33). Of the total studied homeless persons, about 52 per cent are engaged in petty manual jobs, which include handcart pulling, helping to push the handcarts, rickshaw-pulling, engaged in casual labour activities, paper/rag- picking, coolie work, etc. About two-fifth (38.4 per cent) are even found in low paid job like domestic service activities, and rest (6.4 per cent) are found in other activities, such as, begging, selling goods from door to door etc.

The recent study based on Calcutta City pertaining to the occupation of the homeless persons reveals (43) that the homeless persons are occupied in different kind of activities and the homeless persons are classified as porters, rickshaw pullers, hand cart pullers, hawkers/vegetable vendors, daily casual labourers, other categories, rag picker, helpers, beggars, domestic servants, etc. and are representing 20 per cent, 13 per cent, 10 per cent, 10 per cent, 10 per cent, 9 per cent, 9 per cent, 7 per cent, 7 per cent and 5 per cent respectively.

8. Majority of the homeless persons are not having good health at all. They are invariably affected by various kind of health problems, such as, skin diseases, respiratory illness, and viral infections (38,52,33,28). In fact, these segment of the population (homeless) never attend their health problems, which lead to chronic diseases, and even they die with these problems (52). It has been observed that, about 90 per cent of them (homeless persons) never takes medicine while they undergo health related problems.



9. The rag-pickers collect the thrown out Jute sack (Jute sack which are generally thrown out after unpack the materials, and are considered as waste) from the market place and use as clothes, mattress, blankets, etc. it has been observed that few homeless persons use rags for even dressing themselves. (33).
10. Most often, the police personals harass the homeless personals, while they sleep in the public places. These police personals either catch them and put under legal actions or disturb them. These types of harassment is invariably occur in different locations of the Metropolitan Cities of India. (38, 80,).
11. In terms of funds for making arrangement of homes to the homeless segment, the Government of India claims that there is no dearth of funds for the development of this particular segment. (29). It has been observed that once Rs. 500 million was allotted for the rehabilitation of this segment of population, during the VII<sup>th</sup> Five Year Plan period (1985-1990). Of which, only Rs. 48.50 million (less than one-tenth of the allotted amount) was actually spent during the same period. (84, 81). As a result, the outlay for the same was drastically reduced to Rs. 65 million during the VIII<sup>th</sup> Five Year Plan period (1992-1997), i.e., about one-tenth of the outlay of the VII<sup>th</sup> Five Year Plan (84). This shows clearly that though the money is available for the development of the homeless segment, it was kept under unspent since there was no proper policy, plan, program, etc. evolved before allotting money for the same.



12. The Housing and Urban Development Corporation (HUDCO) (1999), which provide funds to various Government Organization for the Development of Housing and Urban Infrastructure stressed that the implementing agencies of government programs pertaining to housing and urban infrastructure should set aside 5 per cent of the areas (land) for the shelterless categories by looking at the vulnerable conditions of the homeless category in the urban system (64).
13. It has been observed that it is an inevitable requirement to define the basic human rights, such as, right to adequate income, rights to secure employment, and right to acceptable shelter for preparing efficient plan for the development of the homeless personals (60). It has been also argued that the Planners must commit to achieve changes in society, by providing basic human rights through legislative and institutional measures (60). In this context, establishing a framework of national, and regional policies for ecologically sound urban growth and development are recommended.
14. It has been observed that there is no strong efficient policy available so far for the development of the homeless segment. (84,60,81,52). Therefore, the following polices are recommended. They are:
- (i) Having holistic approach during the planning stage itself. (60,81,70, 5).
  - (ii) Radical action is essential to safeguard the interest of the homeless segment (60).

- (iii) Basic human rights to be granted through legislative or institutional measures (60). So far these segment of the population do not have the basic human right, such as, ration card, voting power, etc. (38,60,43).
- (iv) Knowledge based and location specific characteristic based efficient plan is very much essential to deal the problems of these segments of the population (60).
- (v) The Master Plan should have the avenue for provision of land to the homeless persons at suitable locations (81).
- (vi) Construction of dismantable structures is very much essential to offset the scarcity of permanent land (81).
- (vii) Formulation of comprehensive strategies or action plans on "shelter for the shelter less poor" is very much essential.

Realistic intervention in the following four areas, such as, sanitation, preventive health care, environmental hygiene, and social care of the destitutes are inevitable to consider during the policy framing stage itself since these are very much essential to develop the homeless personals (52). The Author further stress the vulnerable condition of the destitutes (abandoned wives, old labors, handicapped persons, beggars, and rag pickers who have no sources of income and no link with their families) among the homeless, and urgent action is stressed for safeguarding the interest of these segment (52).

15. It has been observed that few Authors stressed for developing a comprehensive strategy for the development of the homeless persons since they are the integral part of the system, and also stressed the need for their development (39,81).

## **1.10 STATEMENT OF THE PROBLEM**

The Investigator has studied the problems of the homeless persons very thoroughly, and understood that very less research have been done particularly about this segment (homeless persons). The Investigator also observed that the Government (both Union Government and State Government) evolved policies, programs, etc., in this regard without conducting any kind of research, or any mean of investigation. Though money was allotted for the development of this particular segment during the VII<sup>th</sup> Five Year Plan, just one-tenth of the allotted money was spend during the same period. It proves that the government just allotted money without having feasible policies, plan, programs, etc., for the development of this segment. Further, it has been observed that there is no Development Authority available so far to safeguard the interest of this particular segment. Every year, during the foggy winter season several people die on the pavement since the available night shelters also overflow during this season. As a result, the problems of this segment is aggravated day-by-day, and the agony which is the day-to-day life of the homeless persons cannot be even spell by words.

Having the above knowledge in mind, the Investigator, chosen this particular field of learning for conducting this present Investigation, and also to

prepare shelter strategies for this particular segment of the society. New Delhi, a Mega City of India, is chosen to conduct this investigation.

A set of objectives is framed to conduct this present investigation.

### **1.11 OBJECTIVES**

The present investigation has the following objectives. They are:

1. To analyze the existing socio-economic and environmental characteristics of the homeless persons of the city.
2. To analyze the existing policies of government and non-government organization for the homeless persons.
3. To study the functional characteristics of the homeless persons on shelter.
4. To evolve a suitable shelter strategy model and a set of policy guidelines for the development of the homeless group of the city.

### **1.12 HYPOTHESIS**

A plausible hypothesis is framed on the basis of the analytical work done, and is tested in the present investigation i.e., the government's conventional housing policy could not reach the homeless persons.

It has been found that the hypothesis is hundred percent correct based on the analysis. Even a single homeless person of the studied person never received any kind of benefit from the existing housing policies.

### **1.13 CONCEPT**

System concept has been employed in this present investigation. A system function as a whole with the interaction of several sub-system. All the subsystems of the system are interconnected and interdependent to each other. If one of the subsystem defunct in the system, its effects can be seen in the whole system. In an urban system, homeless becomes a subsystem. This subsystem provides service to the rest of the subsystems of the system, and receive benefits from the system for its survival. Having the knowledge of the functions of the homeless persons in this system, the Investigator employs the systems concept in this present investigation.

### **1.14 SCOPE**

It has been observed that very less studies have been attempted to understand the problems and prospects of the homeless persons of the study area. Since the Investigator has more knowledge about the homeless persons of the study area in particular, the Investigator could attempt an in-depth study about the homeless persons of the study area. This study brought out various hidden findings to the limelight, which are very much useful for evolving plausible strategies for the development of the homeless persons of the study area. The Investigator hopes that if the recommendations made in this investigation are implemented systematically, the homeless persons of the study area shall be benefited with shelters, which is one of the basic needs of mankind.

## 1.15 RESEARCH DESIGN

1. Survey research methods have been employed in this present investigation.
2. The methodology which have been followed to conduct this investigation is presented in Fig. 1.3.

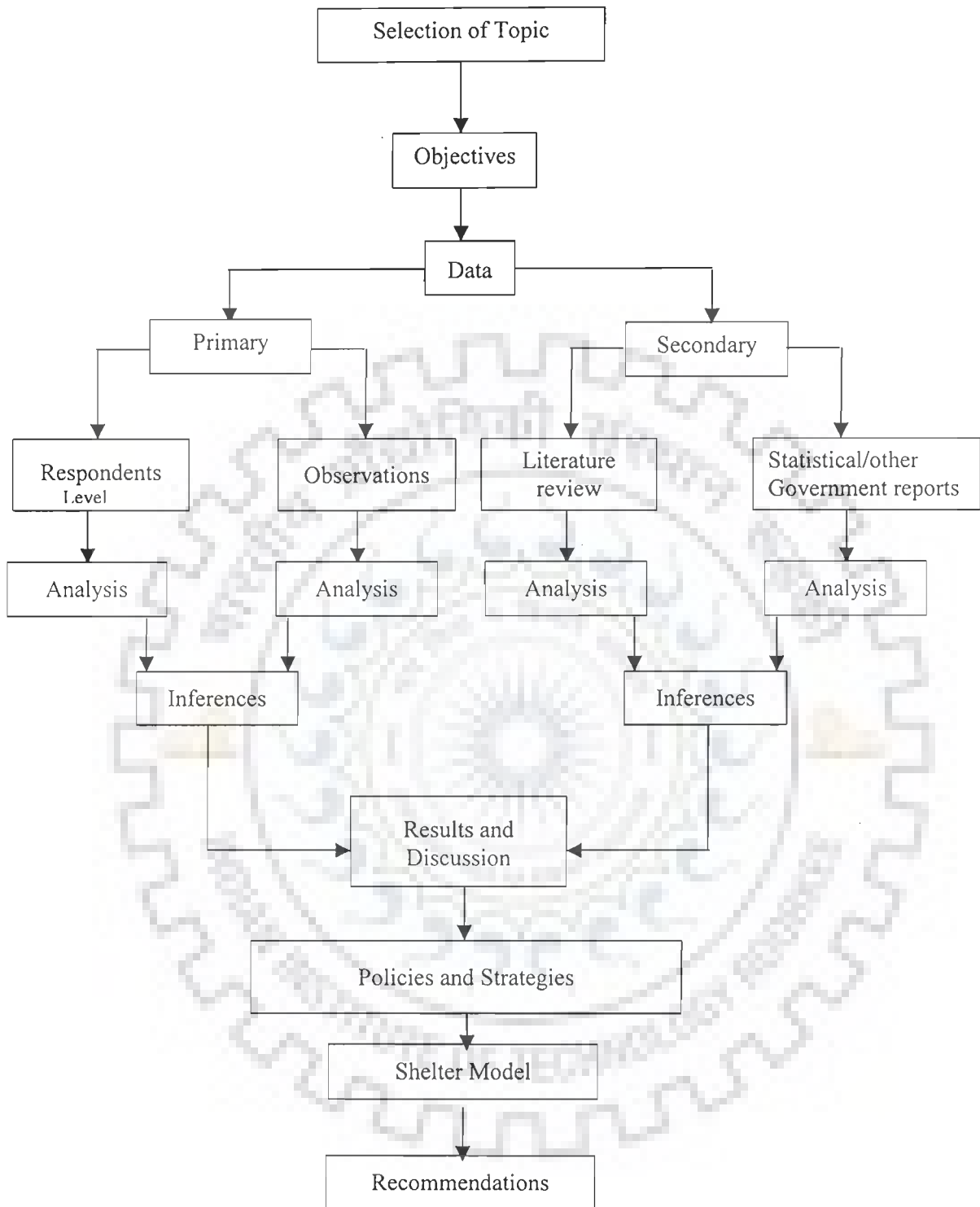
## 1.16 METHODOLOGY

(A) **Data** – Two types of data have been collected for this present Investigation. They are secondary and primary sources of data.

(i) **Secondary Sources of Data:** Required data from the published literature, unpublished literature, documents, etc., are collected pertaining to this investigation.

(ii) **Primary Sources of Data:** Sample survey at respondents level was done for obtaining the requisite data at the grassroots level. Schedule are used to conduct this investigation at the grassroots level. The schedule consists of various questions pertaining to different sections, such as (i) demographic details, (ii) migration, (iii) living pattern, (iv) economic characteristics, (v) shelter perceptions, etc.

(B) **Sampling-** Random sampling technique has been used at various stages for selecting the samples for conducting this present Investigation. The study area (Delhi city) has been divided into 12 zones for the purpose of development administration. It has been found that the homeless are settled in seven zones of the total 12 zones, which are distributed in different locations.



**Fig 1.3 METHODOLOGY**

Having walked through all the zones, it has been observed that the homeless are mostly concentrated in four zones where lots of industrial and commercial activities are prevailed. These four zones are chosen for this present investigation. Variations of concentration of homeless persons are also observed in the selected zones too. For example in zone No. 1 (walled city), more than 80 per cent of the homeless are concentrated in its different streets. Based on their concentration in different zones and streets, eight streets were chosen by using random sampling techniques for conducting this present investigation. Respondents were chosen randomly based on their availability to conduct this investigation. The sampling method, which was followed, is presented in Fig. 1.4.

**Survey Tools:** Survey tools like pretested schedules, is employed in this investigation. The copy of the schedule which is employed for investigation is enclosed in the Appendix –I.

**Analytical Tools and Techniques:** Analytical tools, such as, software (MS Excel, SPSS and Photoshop), and analytical techniques, such as, correlation and regression etc, are employed.

**Results and Discussion:** The results obtained from both analysis (Tabulation and regression) are discussed thoroughly, and inferences are made.



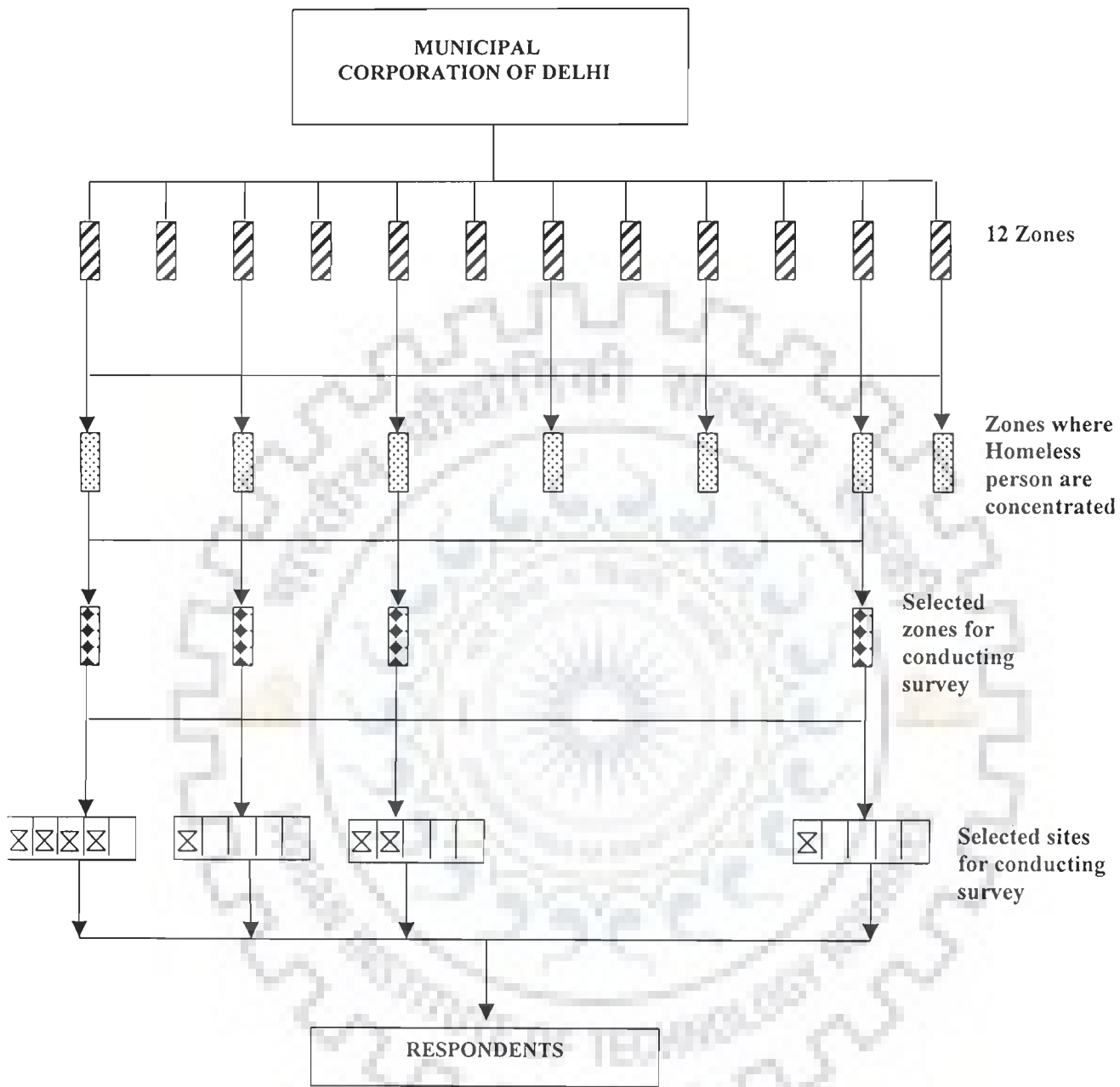


Fig. 1.4 SAMPLING METHOD

## **1.17 APPLICATION OF THEORY**

W. J. Forester's System Dynamics theory and Abraham Maslow's Theory of Hierarchy of Human Needs have been employed in this present investigation.

## **1.18 STRATEGIES**

Suitable shelter strategy models are evolved and recommended for providing shelters to the homeless persons based on their affordability.

## **1.19 LIMITATIONS**

The Investigator could conduct the survey of 306 respondents only, which may be a miniature of the homeless persons of the Delhi city. This limited number of respondents was considered due to several reasons, such as:

- Time limit (Ph.D Research is time based).
- Limited availability of manpower for conducting the survey (the Investigator herself conducted the investigation, at the grassroots level which yields more advantages).
- The homeless persons are available only during night or in early morning for conducting this present investigation.
- During night, the homeless persons use drugs and liquor invariably.

As a consequence, one cannot even approach them in times.

As mentioned earlier, the Author has chosen the Delhi city for conducting the present investigation to evolve strategies for providing houses to the

homeless persons of the city. Therefore, the Author studied the study area (Delhi city) thoroughly in connection with its problems on housing programs for housing, etc., and presented in the subsequent (second) chapter of this work.

## 1.20 CHAPTER SCHEME

The thesis is organized in different chapters as follows:

**Chapter One:** Chapter one consists of introduction, statement of the problem, review of literature, objectives, concept, scope, and research methods.

**Chapter Two:** Chapter two deals with the study area profile.

**Chapter Three:** Chapter three depicts the homeless of Delhi city, role of various governments and non-government organizations, which are working for homeless in the study area.

**Chapter Four:** Chapter four illustrates the socio-economic conditions of the homeless persons of the study area.

**Chapter Five:** Chapter five deals with development of functional model (multiple regression) and its application to understand the affordability of different income groups among the homeless persons of the study area, and application of System Dynamics theory, and theory of hierarchy of human needs.

**Chapter Six:** Chapter six concentrates on evolving suitable shelter strategy models for the homeless persons based on their affordability.

**Chapter Seven:** Chapter seven deals with the summary, recommendation and conclusion.

## STUDY AREA PROFILE

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### 2.1 INTRODUCTION

Delhi city, the capital city of the largest democracy in the globe has been chosen to conduct this present investigation. It is called as National capital territory (NCT) of Delhi. It is a symbol of ancient values with largest heritage. It has diversified culture, customs, traditions, usages and aspirations, since the time immemorial. Over the years, it becomes the centre of excellence, the centre of modernization, the centre of art, the centre of culture, etc. on one hand and also becomes the centre of the inhabitants comprising of different segments of the society, which include homeless on the other.

### 2.2 BRIEF HISTORY OF DELHI

Delhi is the ancient and historic city of India. According to Mahabharata "a capital city called Indraprastha was founded by the Pandavas in 1450 BC, was built, along the river bank 'Yamuna' lying between Kotla Feroz Shah and Humayun's Tomb". Maya, the Davana architect built a splendid palace and court for Pandavas. Recent findings support the fact that this was located in the Purana Qila area. Ptolemy, a geographer, who visited India during the 2<sup>nd</sup> Century/A.D., has in a map, indicated a place known as Daidala located close to Indraprastha and midway between present Mathura and Thanesar. However, there is no indication of either Indraprastha or Delhi in any of the works of the Greek Scholar

who wrote about the conquests of Alexander the Great who invaded India in 326 B.C.

The Chinese Pilgrim, Huien Tsang also never mentioned about this city in his memories. According to a tradition, Delhi derived its name from Raja Dillu's Dilli, 100 BC, which was sited just east of Lalkot, or from Dhillba founded by the Tomar Rajputs in 736 BC. It has been observed that few scholars argued that it had come from the medieval town of Dhillika located near present date Mehrauli. Tomara ruler of Delhi Anangpal built a fort in the 11<sup>th</sup> Century in Delhi. It was also believed that Tomara brought to Delhi an Iron Pillar and installed it. Thereafter, Delhi seems to have flourished as the centre of the Hindu Empire.

During the end of 12<sup>th</sup> Century, the city passed into the hands of Muslim conquerors. Qutb-ud-din-Aibak built his citadel and Qutab Minar in the year 1199. He completed 3 stories of Qutub Minar and his son-in-law Iltutmish, added the fourth one. It stands 72 metres high. Iltutmish made Delhi the capital of his empire. Later Khilji's occupied the city. Ala-ud-Din-Khilji built a new capital for himself at Siri, 1302 AD. His palace of a thousands pillars saw many triumphs and tragedies, but has since completely gone to ruins. It was Ala-ud-Din-Khilji who built the magnificent tank called Hauz Khas. At that time it had enough water to meet the needs of the city. Subsequently, the Tughlaqs taken over the city. Ghiyas-ud-Din-Tughluq, in 1320 moved South and built the fort city of Tughlakabad on the rocky Southern ridge. It has massive bastions and walls. Though strategically located, it was deserted within 5 years.

Muhammad Shah Tughluq first built Adilabad just South of Tughlakabad but soon abandoned it. He moved North and gave his city the name Jahanpanah in 1334 AD. Using the fortifications of the older cities, it had 13 gates. His son, Firuz Shah Tughluq, did not want to be left behind, so he created his own city Firuzabad (Kotla Firoz Shah), in the year 1351. He bought and erected an 8m tall 27 ton glittering golden monolith in Firuzabad from Topra, near Ambala, and it still stands in Kotla Firoz Shah.

Zahir-ud-din Mohammad Babar, the founder of Mughal empire in India who invaded India in 1526 AD, had been most of his time in Agra, and Delhi became a provincial city under his reign. Humayun who ascended the throne after Babar built a fort called Din-I-Panah in 1530 AD. This fort is now known as Purana Quila. It was after a fall from the steep stairs of his library in Purana Quila where he died in 1556 A.D. Akbar and Jahangir had their head quarters at Fetehpur Sikri and Agra. In 1648 A.D., Shahjahan built his capital at Delhi and his fort, the Lal Qila and the huge well laid out city, Shahjahanabad. It took 10 years to build. The city fort had 14 gates, of which many of them still exist. This city survives as Old Delhi of today and thereafter Delhi continued as the capital of the Mughal's till 1857.

Thus the Delhi city had undergone tremendous amount of pressure over the millennium since lot of invaders who invaded and plundered. The city of Delhi passed into the hands of the British in 1803 A.D. In 1911, the capital of British Empire was shifted from Calcutta to Delhi, and since then Delhi got its present prestige.

As mentioned earlier, Delhi city started to grow from the time immemorial. It is the third most popular city in India after Mumbai and Kolkatta, Delhi, the National Capital of India, besides being the 'nerve-centre' of the country, has emerged as an important international business center. It has the largest cluster of modern small-scale industries and is a major distributive center for trade and commerce for the entire Northern Region. It hosts international dignitaries and is also the first choice for setting up of representative office of national and international companies and corporate houses seeking a 'foothold' into the country.

Delhi population has increased manifold during the last 3 decades reaching an astounding figure of over one crore due to its attraction as an employment generator, Almost three lakh people are added to the city annually by way of in-migration and one lakh by natural growth.

Despite population pressures, Delhi's infrastructure still continues to be one of the best in the country and it is rightly famed as the 'city of gardens'. It boasts of the highest per capita income in the country,  $2^{1/2}$  times more than the all India average. Delhi has the most modern medical and educational facilities and has also emerged as the sports and cultural center of the country. Stepped in history, it has a rich architectural and cultural heritage, a major tourist center and there is immense amount of potential for the development of tourism and its allied industries. Over the years, this city has grown to the large extent in terms of area and population. A comparative picture of populations of four metropolitan cities of India is presented in Table 2.1 and shown in Figure 2.1.

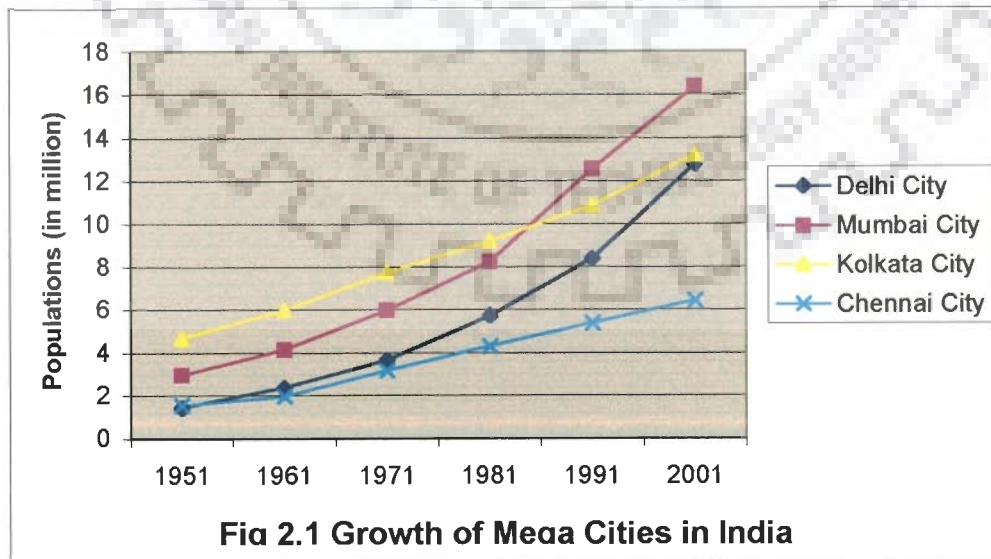
**Table 2.1. Population in Mega cities of India**

**(Figure in million)**

SL NO.	CITY /URBAN AGGLOMERATION	POPULATION					
		1951	1961	1971	1981	1991	2001
1	Delhi Urban Agglomeration	1.43	2.36	3.65	5.71	8.37	12.79
2	Mumbai Urban Agglomeration	2.97	4.15	5.97	8.23	12.56	16.36
3	Kolkatta Urban Agglomeration	4.67	5.98	7.72	9.19	10.86	13.21
4	Chennai Urban Agglomeration	1.54	1.95	3.17	4.28	5.36	6.42

**Source:** Provisional Population Totals, paper 2 of 2001, Directorate of Census Operations, Delhi.

The table illustrates that in 1951, this city had least number of population compared to the other mega cities, but it started to occupy the third position since 1961, and in 2001 it appears to be closer to the second populous city. The Author opinions that if the present trend of population growth continues, this city (Delhi) may occupy the second position in the next census year, i.e., 2011 A.D.





## 2.3 PHYSICAL SETTING

The Union Territory of Delhi is divided into nine districts for conducting development administration, which has an area of 1483 sq kms. It lies between the Himalayas and Aravalis ranges, and also in the heart of the Indian subcontinent.

It lies between  $28^{\circ}-24' -17''$  and  $28^{\circ}-53'-0''$  of North latitude, and between  $76^{\circ}-50' -24''$  and  $77^{\circ} -20'-37''$  of East longitude. Its maximum length and breath are 51.90 Kms and 48.48 Kms respectively. It's altitude ranges between 213 and 305 metres above the mean sea level. The general slope of land is from the North to the South. The major part of its territory lies on the Western side of river Yamuna, and only a few villages and little quantity of urban areas lies on the Eastern side of the river Yamuna.

There are five National Highways, namely National Highway-1, National Highway-2, National Highway-8, National Highway-10 and National Highway-24 converge on Delhi's Ring Road. It is also a major junction on the rail map of India.

Delhi is surrounded by the Ghaziabad District of Uttar Pradesh state in the East, the Rohtak District of Haryana State in the West, the Sonpath District of Haryana State in the North and Gurgaon District of Haryana State in South. So Haryana State bound Delhi on the North, West and South, and Uttar Pradesh on the East. The study area is shown in Fig. 2.2.

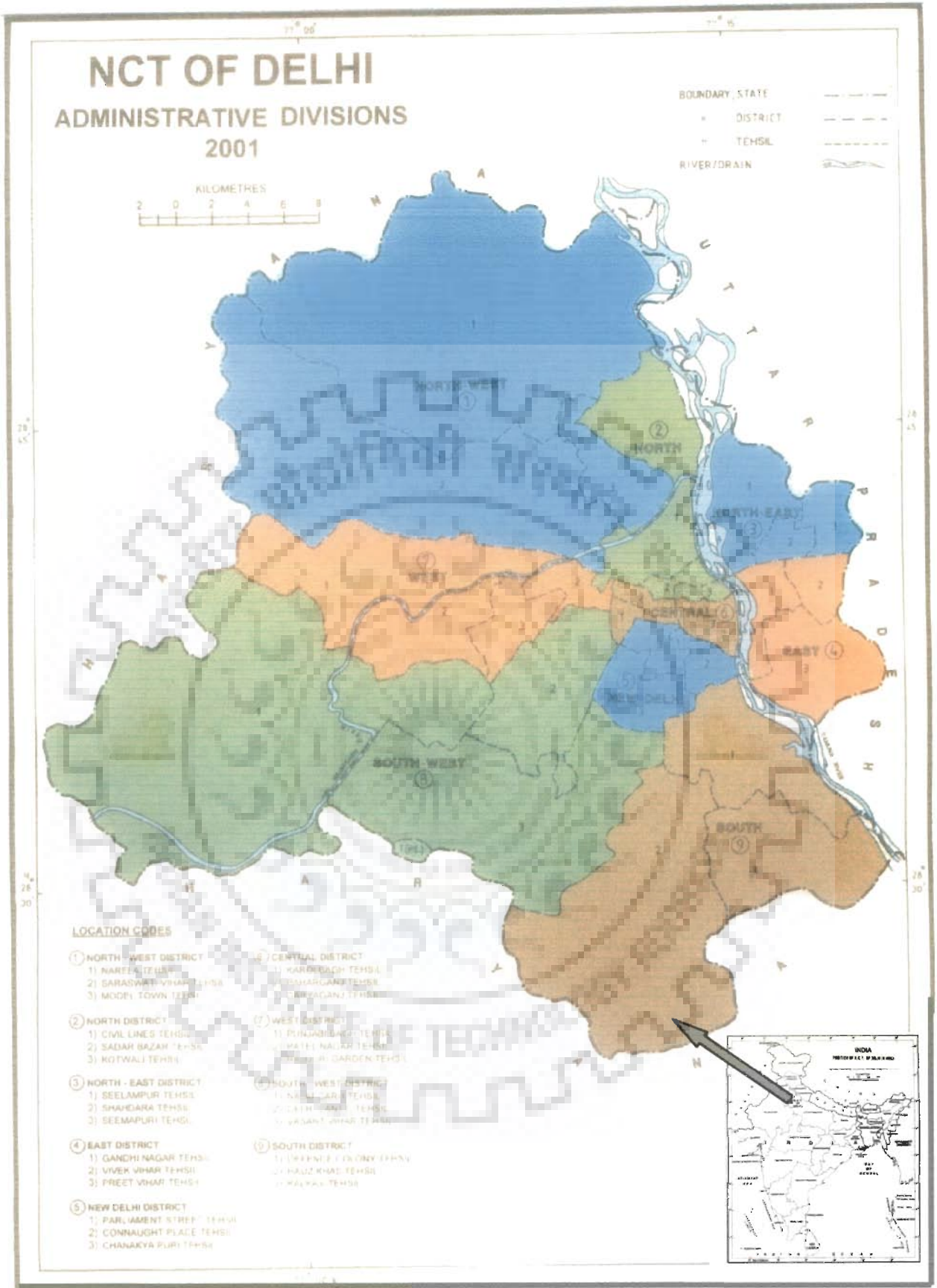


Fig. 2.2 Delhi City – The Study Area

## 2.4 CLIMATE

The Delhi city enjoys semi-arid type of climate with three well-defined seasons namely summer, monsoon and winter. Rainfall is received during the South - West monsoon period that lies between July and September months. The rainfall is highly erratic in time and space. The annual average rainfall in the city is 611 mm. The mean minimum and maximum temperatures are 18.7°C and 30.5°C respectively. During the sunny summer season, i.e., between May and June, the temperature commonly exceeds 40°C, and during the foggy winter season, i.e., from December to January, it touches even 3°C.

## 2.5 ADMINISTRATION

The Delhi city has complex administrative structure and the city's utilities are administered by a multiplicity of agencies including the Central Government, State Government, two Municipal Bodies and a Cantonment. The city has complex land owning organization where one department of the Central Government sanction's land and another department approve the construction plan. Till 1956, Delhi was a 'State'. On the recommendation of State Reorganization Commission, Delhi was declared as a Union Territory in 1956. Based on the enactment of the Delhi Municipal Corporation Act, 1957, a Municipal Corporation was elected in April 1958. The jurisdiction of the Municipal Corporation of Delhi (MCD) covered the entire union territory of Delhi. Thus, the Municipal Corporation of Delhi (MCD) is looking after 97 per cent of Delhi's administrations, which have both rural and urban segments. The rest of the union territory area is confined in the urban

segment alone, and is shared by two local authorities, such as the New Delhi Municipal Committee (NDMC), and the Cantonment Board. The Municipal Corporation became the premier body for provision and maintenance of urban services, sanitation and certain community facilities in Delhi. It lacked power with regard to planning, development and disposal of urban land. In 1991, Delhi was again given the status of a 'State', albeit with limited powers, since the Administrator (Lt. Governor) continued to be enjoyed vast decision-making and discretionary powers. Municipal Corporation of Delhi (MCD) is further divided into 12 zones. Thus, there are 14 zones in Delhi, for administrative purposes. To avoid haphazard growth and for planned development, Delhi Development Authority (DDA) was created under Delhi Development Act-1957.

Delhi's 95.80 per cent populations lives in the area under Municipal Corporation of Delhi's (MCD) jurisdiction, 3.20 per cent and 1.0 per cent populations lives in an area under in New Delhi Municipal Committee area (NDMC), and the Cantonment area respectively.

The total area National Capital Territory of Delhi is 1483 Sq. Km.. Of which 685.34 Sq. Km. confine under the urban system, and the rest of area of 797.66 Sq. Km. confined in the rural system. Area confined in different jurisdiction of Delhi city is presented as follows:

New Delhi Municipal Council	42.74 Sq. Km
Delhi Cantonment Board	42.97 Sq. Km
Delhi Municipal Corporation	
Urban, Rural & Census Towns	<u>1397.29 Sq. Km</u>
	<u>1483.00 Sq. Km</u>

The entire city is divided into nine districts and further into 27 tehsils for having effective development administration. Three municipal jurisdiction such as, Delhi Municipal Corporation (DMC), New Delhi Municipal council (NDMC), and Delhi Cantonment (DC), are covering the area of the nine districts, and some districts are covered under two municipal jurisdictions. For examples, the New Delhi Municipal Council (NDMC) has the jurisdictions of more than one district, i.e., four districts, while the Delhi Municipal Corporation is spreaded in almost all the nine districts, area. The statutory town of Delhi cantonment which confine its jurisdictions in only one district i.e., south-west. There are fifty-nine census towns, and one hundred and sixty five villages also confined within the city.

## 2.6 URBAN AGGLOMERATION

As per the 1961 census, the concept of 'Town Group' was adopted to obtain a broad picture relating to urban spread. This was refined in 1971 with the concept of "Urban Agglomeration" to obtain better feed back in respect to urban continuity, processes and trend of urbanization and other related matters. This concept without any change or modification has remained operative in the years 1981 and 1991.

Urban Agglomeration is a continuous urban spread constituting a town and its adjoining urban outgrowths (OGs), or two or more physical contiguous towns together and any adjoining urban outgrowth of such towns. Examples of outgrowth are railway colonies, university campuses, port areas, military camps etc. that may have come up near a statutory town or city but within the revenue limits of a village or villages contiguous to the town or city.



In the year 2001, it was decided that the core town or at least one of the constituent towns of an urban agglomeration should necessarily be statutory town and the total population of all the constituents should not be less than 20,000 (as per 1991 census). The referred two basic criteria having been met, the following are the possible different situations in which urban agglomeration could be constituted.

- 1) A city or town with one or more contiguous outgrowth
- 2) Two or more adjoining town with their outgrowths.
- 3) A city and one or more adjoining towns with their outgrowths all of which form a continuous spread.

In the year 1971, there was only one urban agglomeration in Delhi city with its three constituent units (Statutory towns) viz. New Delhi Municipal Committee, Delhi Cantonment and Delhi Municipal Corporation (Urban). These three statutory towns became the part of the Delhi Urban Agglomeration in the year 1981 along with addition of 22 census towns. Over the decade, it grew at a phenomenal rate. In 1991 it was observed that the Delhi Urban Agglomeration comprised had 26 constituent units i.e., 3 statutory towns, and 23 census towns. The composition of Delhi Urban Agglomeration again underwent changes at the time of 2001 census, and it comprises of 59 constituents units. Of which, 3 are statutory towns and 56 are census towns. Three census towns are not forming part of Delhi Urban Agglomeration as they did not form a contiguous part of any statutory or census towns.<sup>(24)</sup>



## **2.7 DEMOGRAPHIC PROFILE OF DELHI CITY**

### **2.7.1 Growth of Population**

The population of Delhi city has been growing at an alarming rate. Delhi started as a small town with a population of hardly 4.1 lakhs in 1911 and grew steadily to reach a population of 9.2 lakhs in 1941 with a decadal mean growth rate of approximately 30 per cent. It rose from around 9 lakhs to 17 lakhs during 1941 to 1951 thus showing an all time record growth of around 90 per cent. This was due to large-scale migration of refugees after partition of the country. Since then influx of people has been continuing in Delhi not only from other states but also from neighbouring countries. According to 1991 census, Delhi has a population of 94.2 lakh showing decadal growth rate of 51.45 per cent as compared to all India growth rate of 28 per cent.

The Provisional Population of National Capital Territory of Delhi as recorded on '00hrs of 1<sup>st</sup> March 2001 is 13.78 million consisting of 7.57million males and 6.21 million females. Population of Delhi has increased from 9.42 million in 1991 to 13.78 million in 2001 recording a growth rate of 46.31 per cent during the decade as against the National growth rate of 21.34 per cent.

Delhi has always been depicting growth rate above the all India growth rate because being the capital of the country, and it has always been attracting large number of immigrants from other states. The growth rate for the decade 1991-2001 for Delhi is, however, reduced by 5.14 per cent compared to the corresponding rate of growth for the decade 1981-91, which was 51.45 per cent.

The population of Delhi accounts for 1.34 per cent of the total population of the country and occupies 18<sup>th</sup> rank amongst all the states and union territories. The decadal growth of population in Delhi city is presented in Table 2.2, and Fig. 2.3.

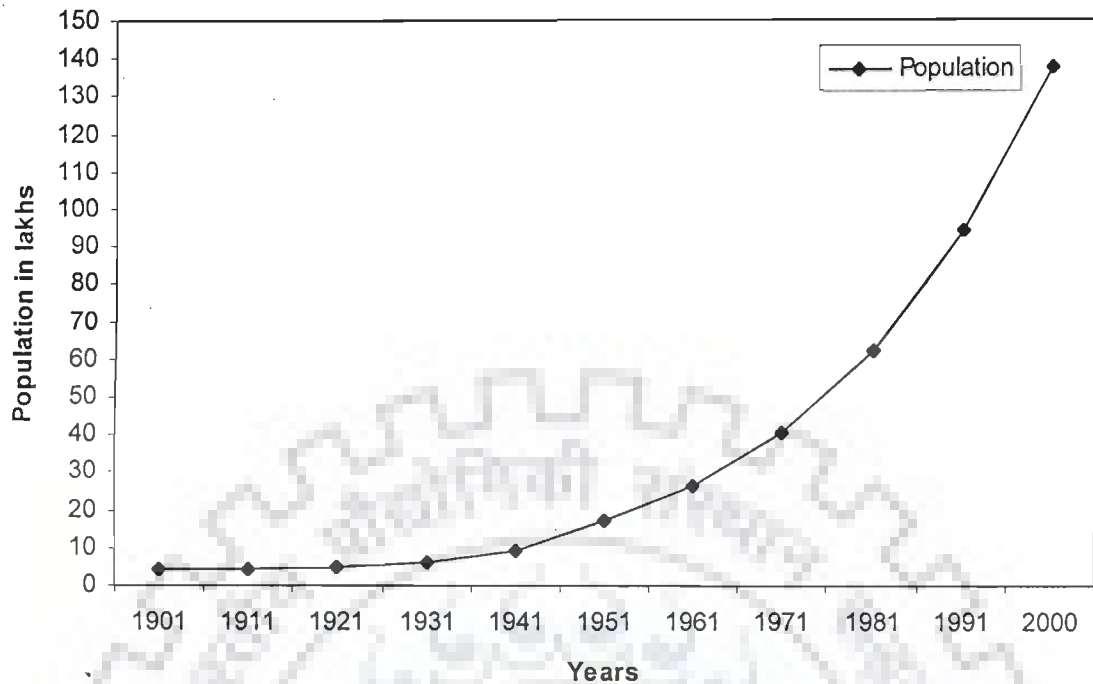
**Table 2.2 Population Growth in Delhi city (Population in lacks)**

Year	Population in lakhs	Decadal population growth (1901-2001)
1901	4.06	-
1911	4.14	1.97
1921	4.89	18.12
1931	6.36	30.06
1941	9.17	44.18
1951	17.44	90.19
1961	26.59	52.47
1971	40.66	52.92
1981	62.20	52.98
1991	94.21	51.46
2001	137.82	46.31

**Sources:** *Provisional Population Totals, Paper 1 of 2001, Directorate of Census Operations, Delhi*

The table 2.2 and the Fig. 2.3 illustrate that the population growth in this city is phenomenal. It has been observed that this city has more than 40.00 per cent population growth since 1931, and it touched 90.19 per cent in the year 1951 due to the partition of the country.





**Fig. 2.3 Population Growth in Delhi City**

### 2.7.2 Density

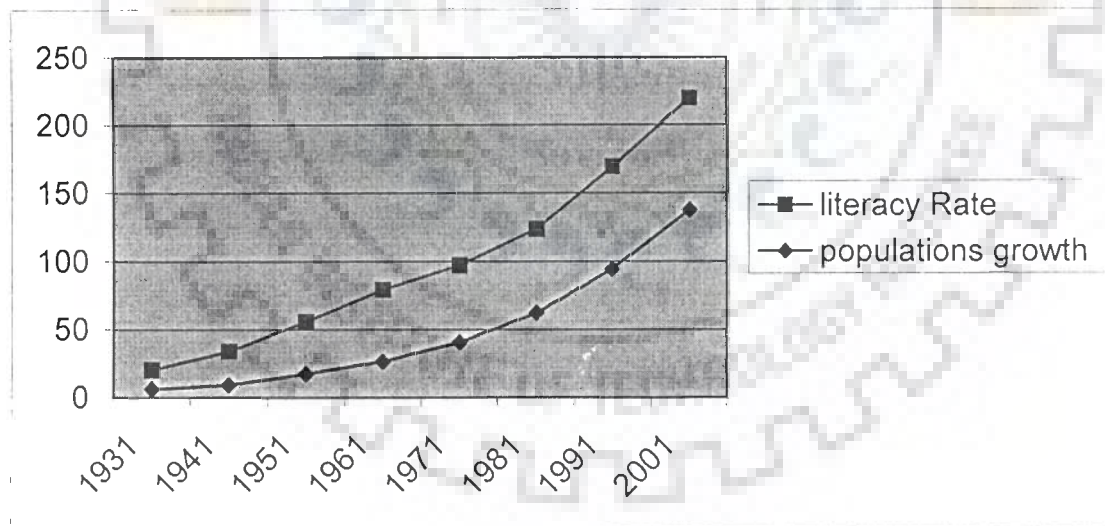
In Census, density has been defined as the number of persons living in per square Kilometer. According to census 2001, the density of population of Delhi works out at 9294 persons per square Kilometer as against 6352 in 1991. The density of population in Delhi is presently the highest among all the States and the Union Territories in India with the rapid increase in the population without any increase in area. The population density in this city varies from one district to other. In some districts, the density is quite phenomenal, whereas in some districts, it is comparatively very less. In the North-East district of Delhi city the density of population is 29395, where as it is just 4909 persons in New Delhi district. This may be due to several factors, which are deciding the functions of the system. The density of population, and the sex ratio of population of Delhi city is presented by

The literacy status among the urban population is also very bleak. In the study area (Delhi city), the literacy is rate is quite good compare to other cities of the country. It has been increasing at a phenomenal rate. The percentage of literacy in the city in the year 1931 was 14.06, and it was 81.82 per cent in the year 2001. The literacy status in the study area is presented in Table 2.4 and Fig. 2.4.

**Table No. 2.4 Literacy Rate in Delhi City**

Sl. No.	Year	Literacy Rate
1	1931	14.06
2	1941	25.01
3	1951	38.36
4	1961	52.75
5	1971	56.61
6	1981	61.54
7	1991	75.29
8	2001	81.82

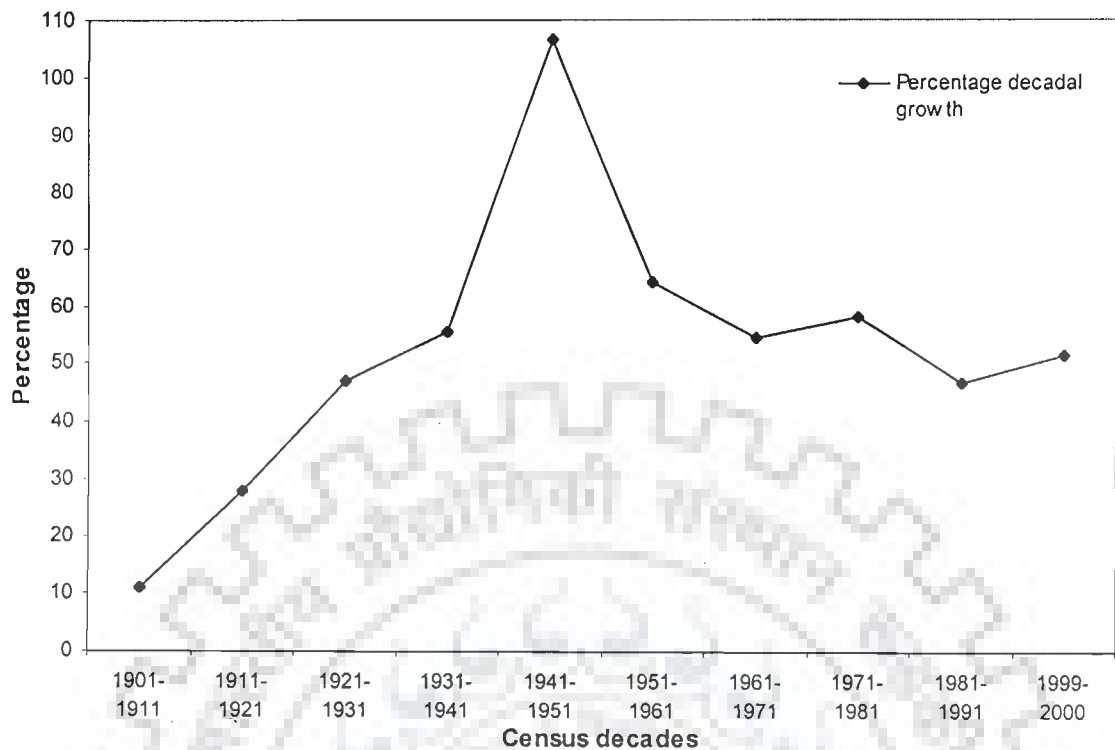
**Sources:** *Provisional Population Totals, Paper 1 of 2001, Directorate of Census Operations, Delhi.*



**Fig. 2.4 Literacy Rate in Delhi City**

#### 2.7.4. Urban-Rural Composition

Delhi is predominantly urban in character. As per the census 2001, the total number of population in the National capital territory of Delhi is 13,782,976. Of which, the urban population is 12,819,761 and the rural population is 9,63,215. The percentage of urban population to total population was only 52.76 per cent as per census 1901, and it rose to 93.01 per cent in 2001 indicating the fast pace of urbanization. It is evident from the above statement that Delhi is highly urbanized as 93.01 per cent of its population lives in the urban area, and only 6.99 per cent of total population live in the rural area. The density in urban area is more than ten times of that in the rural area i.e., the density in urban areas is 12361 persons per sq. km, while in rural area it is only 1190 person per. sq. kms. The decadal urban population growth in the study area (Delhi city) is presented in Fig. 2.5. This figure shows that each and every decade the population growth has taken place at a higher level. But during the period between 1941 and 1951, the urban population growth was very phenomenal and it was 107 per cent. The overall percentage growth is 90 per cent. This phenomenal growth rate of population in the city between 1941 and 1951 is due to the influx of refugees, immediate after the partition of the country.



**Fig. 2.5 Delhi percentage decadal growth in urban population 1901-11 to 1991-2001**

### 2.7.5 Economy

Besides being the national capital, Delhi has emerged as a central business district of the Northern India. The multiplier effect of its industrial growth and trade is evident by its ever-growing and vibrant economy. Its net domestic product during 1989-90 had been Rs. 8602 crore, while the gross domestic product had been Rs. 9466 crore. Delhi has the highest per capita income in the country which was Rs. 19,779 in the year 1995-96 as compared to all India per capita income of Rs. 9,321. Thus ample job opportunities coupled with higher wages and earnings provide enough opportunities for the people to migrate and settle in Delhi.

Secondary and tertiary sector of the economy are the main economic activities of Delhi. In the last four decades preceding 1991, Delhi has experienced a significant functional shift in its economic structure in favour of manufacturing and processing activities. In 1961, only 17 per cent of work force was employed in the manufacturing and processing activities, which is increased to 25 per cent in 1991. This happened mainly at the expense of service sector, which declined from 43.7 per cent in 1951 to 33.05 per cent in 1991. There has been no change in the trade and commerce sector, which has uniformly remained around 20-25 per cent. In absolute number the work force was increased from 1.17 lakh in 1951 to 6.73 lakhs in 1991. Transport, storage and communication provide 8.30 per cent, construction 7.8 per cent, and agriculture and its allied activities 2.84 per cent. The total cropped area in the territory was 117,000 hectare in 1971, and has decreased to 76,230 hectare in 1991.

Delhi as emerged as the biggest consumption center in whole of North India and it had strategic location with respect to transportation facilities, it gradually emerged as a big distributive centre almost every wholesale trade generated from North India found its base in Delhi. Besides its strategic location, lower tax rates in Delhi as compared to the neighbouring states, lower central sales tax on re-export of goods, lower whole sale prizes, etc. are some of the other important factors, which have strengthened its distributive character in Delhi. Most of the wholesale trade centers are located in old Delhi area, where the majority of the markets are located in close proximity to one another.

Delhi is not only the largest commercial center in Northern India but also the largest centre of small-scale industries. There has been a phenomenal growth of industries in Delhi in the last 2-3 decades, where as sharp increase in the number of units from 26,000 in 1971 to 1,37,000 in 1999 have been recorded. Only 25,000 units out of the total 1.37 lakhs are functioning in the conforming industrial areas, and the rest are about 1.10 lakh units confined in the non-conforming areas. The industrial employment during this period increased from 2.15 lakhs to 11.36 lakhs. Corresponding investment was also increased from Rs. 190 crores in 1971 to Rs. 2,524 in 1996, while the production was increased from Rs. 388 crores in 1971 to Rs. 6,310 crores in 1996.

There are about 20 industrial estates developed by the Delhi Development Authority and 8 by the industries department /Delhi State Industrial Development Corporation (DSIDC). These industrial estates have approx. 25,000 industrial plots.

Being seat of the national and state government, Delhi provides massive employment in the public sector. According to the survey of Directorate of employment, in the State of Delhi, public and private sector establishments employed more than 8.30 lakh people. Of which, the employment opportunities in the public sector had been 6,15,682.

Delhi brings a sizable proportion of income to the nation. By way of income tax, it collected Rs. 1721 crore during 1989-90 from 3,41,349 income tax payees. The receipt under sales tax has been Rs. 777.87 crore during 1991-92. Its propensity is well reflected by the capital stock, including land, building and other assets. It also has the highest ownership of motor vehicles in India.

### 2.7.6 Working Force

A worker is a person who participates in any kind of economically productive work. The working population is grouped into two categories, such as, main workers, and marginal workers based on the time-span of their engagement in any economically productive activity , and are explained as below.:

**Main Workers-** Persons who had participated in any economically productive activity for six months or more during the year preceding the date of enumeration.

**Marginal Workers-** Persons who had engaged themselves in any economically productive activity for less than six months during the year preceding the date of enumeration.

**Non- Workers-** Non-workers are categorized as person who do not engaged in any economically productive work in a year.

In India, unemployment, under employment, and disguised unemployment are rampant. Educated and uneducated youth are wandering hither and thither searching for employment opportunities, and become unemployed.

The working and non-working population of the Delhi city is presented in Table 2.5 as per census 2001.

**Table 2.5 Working Population of Delhi City –2001**

S.No.	Description	Total	Percentage to total population	Urban	Percentage to total population	Rural	Percentage to total population
1	Total population	13,803,085		12,838,142		9,64,943	
2	Total workers (Sr.No. 3+4)	45,26,737	32.80	42,17,971	32.86	3,08,766	32.00
3	Main workers	43,03,812	31.18 (95.07)*	40,22,954	31.34 (95.37)*	2,80,858	29.10 (90.97)*
4	Marginal workers	2,22,925	1.62 (4.93)*	1,95,017	1.52 (4.63)*	27,908	2.89 (9.03)*
5	Non workers	92,76,348	67.20	86,20,171	67.14	6,56,177	68.00

Source :Census 2001.

\* Percentage to total workers.

This table illustrates that there are 1380385 population as per census 2001. Of which, about one- third of the population (32.80 per cent) are working and the rest (67.20 per cent) are considered as non-working population. Of the total working population (4526737), majority of them are considered as main workers, i.e. 95.07 per cent, and the rest of them (4.93 per cent) are considered as marginal workers. Similarly among the urban and the rural population of the city, almost the same trend is observed. Among the urban population, about one-third of the urban population (32.85 per cent) is working and the rest (67.14 per cent) are classified as non-working population. Of the total working urban population, majority of them (95.37 per cent) are categorised as main workers, and the rest (4.63 per cent) are considered as marginal workers. Among the rural population category, about



one-third of the rural population (32.00 per cent) is considered as working population, and the remaining (64.14 per cent) is considered as non-working population. Of the total working population of the rural system (308766), majority of them (90.97 per cent) are considered as main workers, and the rest (9.03 per cent) are categorised as marginal workers. It clearly shows that almost all the person who engaged in productive work in this city are engaged in the whole year, which lead to steady economic growth. Unfortunately, more than two-third of the total population is considered as non-workers, and this segment purely depend on the working population, which is less than even one-third of the total population. This symptom is not at all an encouraging factor in a developing economy, where socio-economic evils are rampant.

#### **2.7.7 Residential Houses and Households**

Though home is one of the basic needs to the human being, homeless people are very common in the study area. Housing shortage is identified as one of the important variables, which hinder the development. Keeping these in view, the Urban Land Ceiling And Regulation Act is reviewed and dropped by the Government of India, aiming at it may park the way for large scale of housing construction. The available number of households and the number of residential houses are carefully studied and presented in Table 2.6 This table illustrates that the study area (Delhi city) has 1802338 number of residential censuses houses, 1861576 households, 12200 houseless households, 182241 kutcha houses, 85759 semi-pucca houses, 1592748 pucca houses and 49870 non-serviceable

kutcha houses. The housing shortage is depicted as 248118<sup>(21)</sup>. The housing shortage would have increased further at present.

**Table 2.6 Housing shortage in Delhi  
(Census 1991)**

Sl. No.	Description	Total
1.	Residential Census Houses	1802338
2.	Households	1861576
3.	Difference (2-1)	59238
4.	Houseless Household	12200
5.	Kutcha Houses	182241
6.	Semi-Pucca	85759
7.	Pucca	1592748
8.	Non- Serviceable Kutcha	49870
9.	Housing Shortage (3+4+5)	248118
10.	Percentage Shortage (9/2)	13.33

*Sources: Directorate of Census Operations, "Houses and Households" Series 31, Part VII, Delhi, Census of India 1991, Delhi.*

## 2.8 MIGRATION TO DELHI

Immigration has been functioning as a key factor for Delhi's rapid population growth. During the decade 1961-1971, 5.3 lakh people had come to Delhi from outside and settled, but in the next decade 1971-81 it grew upto 12.3 lakhs. During 1981-91, migration has contributed almost 50 per cent of the population growth. The migration has taken place mainly from neighboring states of Uttar Pradesh (49.91per cent), Haryana (11.82per cent) and Rajasthan (6.17per cent), and also far off backward state like Bihar (10.99per cent). The migration status in the study area in the year 1991 is presented in Table 2.7 as per census 1991.

**Table 2.7 Migration to Delhi - 1991**

S. No.	Description	Population	Percent
1	Total In-Migrants	3710407	
2	In-Migrants from Other states/UTS	3333161	90.00
3	In-Migrants from other countries	377246	10.00
4	Out-Migrants	489774	
5	Net-Migrants	3220633	

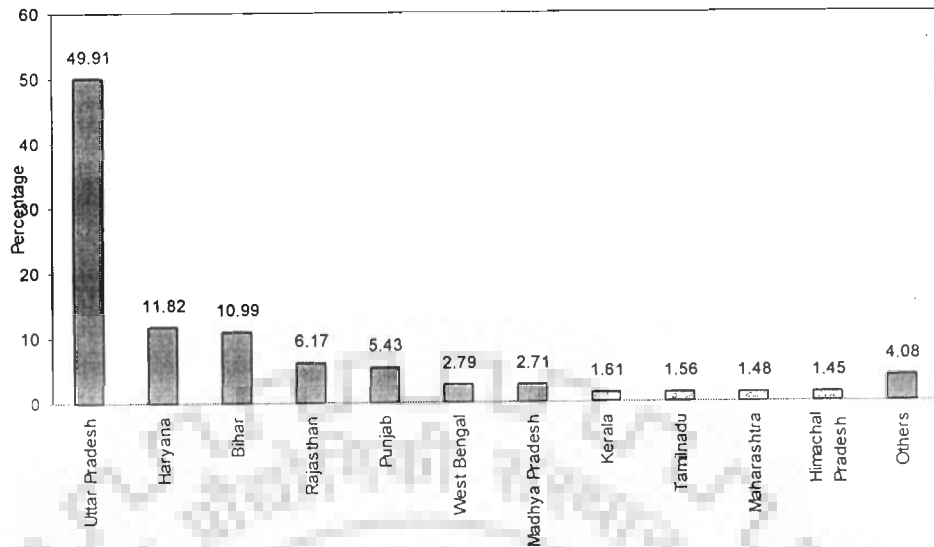
Sources: Census of India, 1991

The table explains that the in-migrants of the city were 3710407 persons in the year 1991. Of which, 90 per cent of them (3333161) came to the city from different states and union territories of the country. The rest of them (10 per cent) came to the city from other neighboring countries. It has been also observed from the table that a considerable amount of population, i.e. 12 per cent of them were out-migrants (489774) went out of the city. By and large, the migrants contribute more than 50 per cent of the population growth in a decade in this city.

The status of migration from different states to the study area (Delhi city) by state wise contribution is presented in Fig. 2.6. This figure shows that about half of the migrant population (49.9 per cent) comes from the Uttar Pradesh State alone. Followed by, Haryana and Bihar contributed little more than one-tenth of the migrants each, i.e. 11.82 per cent, and 10.99 per cent respectively. The other neighboring states such as, Rajasthan and Punjab also contributed to the larger extent and are accounted as 6.17 per cent and 5.43 per cent respectively. The

other states, such as West Bengal, Madhya Pradesh, Kerala, Tamil Nadu, Maharashtra, Himachal Pradesh, etc., together contributed the rest of the migrant population. There are several factors, which are responsible for less migration from the other states. They are:

- (i) Tamil Nadu, and the Maharashtra states contribution is very little, since these states have little higher standard of living compare to the rest of the states.
- (ii) Lower level migration from Tamil Nadu to the Delhi City is due to language barrier. The Tamil Nadu Government never allows Hindi language to penetrate in the state. In the Delhi city Hindi is the prime language. Since the Tamil Nadu people do not know Hindi, which is the local language in Delhi, they never prefer to migrate from Tamil Nadu to Delhi city.
- (iii) The Tamil Nadu and Maharashtra states have mega city. As a result, these states have lot of avenues for growth like Delhi city. So migration from these states is very less.
- (iv) Mumbai city, which is confined in Maharashtra that is known as economic capital of the country. It has more economic avenues than the capital city. So migration from Maharashtra state is very less to the capital city.
- (v) The Southern state people are migrating to the other Mega Cities since the other mega cities (Chennai, Mumbai, Kolkata) are nearer to them compare to the capital city (Delhi).

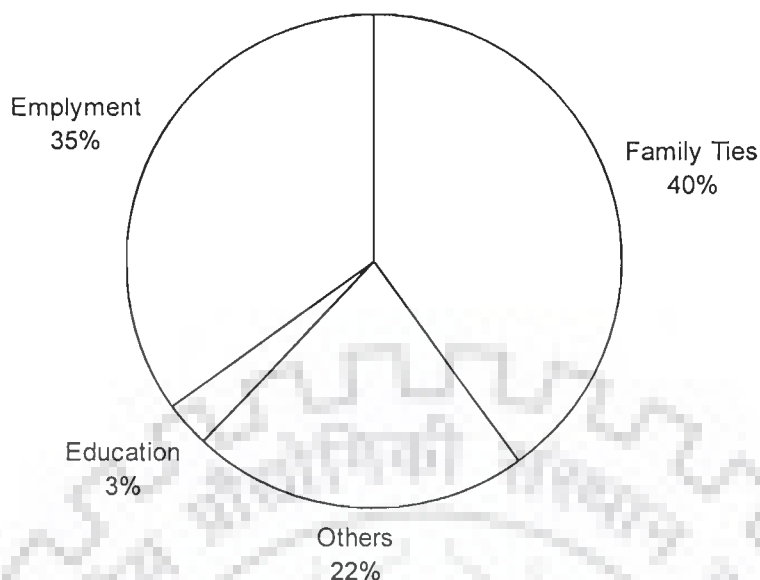


**Fig. 2.6 State-wise Migration**

*Source : Migration Tables Delhi, Census of India, 1991.*

## 2.9 REASONS FOR MIGRATION

The large-scale migration to Delhi city is in search of employment opportunities. Generally, once a person (head of the family) moves for searching job and achieved the same, he used to bring his own family members to the city. As a consequence, large-scale migration takes place to the city. The reason for migration to Delhi City is presented in Fig. 2.7. This figure shows that there were 35.00 per cent of them migrated for searching job. There were 40.00 per cent of them migrated due to family ties. Followed by, due to other reason it was 22.00 per cent, and rest 3.00 per cent of them migrated for getting good education. This figure explicitly shows that two-fifth of the population migrated due to family ties, which is one of the most important factors decide the socio-economic functions of the Indian sub-continent.



**Fig. 2.7 Reasons for Migration**

*Source : Census of India, 1981*

## 2.10 INFRASTRUCTURE

The quality of life in a settlement very much depends on the level of availability, accessibility and quality of infrastructure services. The formulation of a strategy for infrastructure development is an integral part of an overall development plan for an urban area. The level of infrastructure facilities depends upon the status of the town and its resource base. However, certain minimum facilities have to be provided to make human life comfortable and pleasant. The responsibility of Urban Local Authorities is great in providing at least minimum basic facilities, utilities and services. Infrastructure facilities are divided into two groups, such as, physical infrastructure including water supply, drainage, solid waste disposal, power, transportation and telecommunication, and the social

infrastructure including education, health, financial institutions, housing and other services. In Delhi, the massive size of urban population, coupled with staggering regular increments to its, has put a severe strain on urban resources. Strain is evident particularly in the housing, transport, water supply, sanitation, power and employment sectors. The population of Delhi in 1941 was about 9 lakhs, in 1951 it was 17.4 lakhs, which crossed 94 lakhs in 1991 and it is 137.82 lakhs in 2001. As a consequence, it is impossible to provide the necessary infrastructure services to the huge chunk of population by a developing country like India. A special report of a leading Delhi news paper says that Delhi is collapsing under its own weight with water, power, housing in short supply, roads and public transport unable to bear up the pressure any more, and educations and health facilities dwindling<sup>(91)</sup>. According to a former chief executive councilor, "Delhi is under siege of six devastating pressures, namely population, pollution, shortage of water supply, erratic electric supply, housing shortage and traffic jams. Further he added that these pressures would multiply to such an extent in near future that life in Delhi would become unlivable because three-fourth of the population would be living in slums. To provide basic amenities such as water supply, sewerage, drainage, shelter, electricity, traffic and transportation facilities will be beyond the reach of a single civic authority to provide to a population of 13.78 million" <sup>(92)</sup>.

The rapid growth of population necessitates augmentation of water, power, sewerage, drainage and solid waste management. Analyzing the present state of affairs in Delhi city, infrastructure problems become a major concern. In Delhi city the sewerage and solid waste management are comparatively its internal affairs,

while supply of water, power and the drainage are inter-state issues and thus more critical, since water and power are obtained from other neighbouring states, and drainage is pumped to neighbouring states.

The unprecedented population growth of Delhi has put all the basic services under considerable amount of pressure giving rise to mounting problems.

### **2.10.1 Water Supply**

Every year various parts of Delhi face water supply scarcity. Delhi is dependent for raw water from distant sources and augmentation of raw water for Delhi has been a permanently unsolved issue i.e. escalating population can not be matched by proportionate increase in the raw water availability. The water supply to citizens of Delhi is through water treatment plants i.e. Chandrawal (90 mgd), Wazirabad (120mgd), Haiderpur (200mgd), Shahdara (100mgd) and rest through Ranney Wells/Tube wells <sup>(72)</sup>.

According to Delhi Jal (Water) Board, the current treatment capacity in the year 1999 is 2645 mld against the requirement of 4765 mld. Water supply in National Capital Territory of Delhi at present is inadequate, the shortage is about 45 per cent of the requirements.

### **2.10.2 Sewerage Disposal**

Delhi generates large quantities of sewage. At present, the total quantity of sewage generated is 2,871 mld, while the total capacity of the sewage treatment plant in Delhi is 1,478 mld. The remaining untreated sewerage (1,393 mld) finds its way into the river Yamuna through 19 major drains, which confluence into the river



carrying sewerage and industrial effluents from the city <sup>(73)</sup>. As a result, the water quality in the river Yamuna has been deteriorating and the water in the river is at present unfit even for animal drinking and agriculture use.

At present, only about 75 per cent of the population in Delhi is covered by sewerage facilities. The sewerage system is non-existent in large parts of trans-Yamuna areas, all resettlement colonies, and of course, in squatter settlements. In other parts of the city, sewerage lines, laid decades ago are now unable to carry the increasing quantities of sewage and are in a state of virtual collapse. The trunk and branch sewers have settled at many locations and have not been repaired for a long time. This appears to be one of the major reasons for the overflow of sewage into the storm water drains and into the river Yamuna.

### **2.10.3 Solid Waste Management**

In most localities of Delhi garbage/solid waste dumps are overflowing and the number of open garbage dumps in the parks, drains and roadside are on the increase. It contributes to the pollution of entire environment-air, water and soil. During 1999, the estimated quantity of waste generated was 8,203 MT, the clearance/disposal was limited to 4,885 MT <sup>(74)</sup>. Thus there is a gap of 40 per cent, which is likely to increase in future. Large quantities of solid waste remain untouched, and thus are unable to provide clear and healthy environment.

### **2.10.4 Power**

National Capital Territory of Delhi has been facing frequent load shedding and power system break down almost in every summer season. The peak demand

has been rapidly increasing both due to the continuous growth of population and the rise in living standards of the people. It has increased from 1,435 MW in 1991 to 2,600 MW in 1999 and is expected to go upto 3,500 MW by the year 2002. The availability of power in the year 1999 was approx. 2,355, MW that is likely to increase to about 2,600 MW by the year 2002. Unless drastic measures are taken to reduce transfer & distribution losses, the gap between supply and demand is likely to be as high as 50 per cent by the year 2021.

#### **2.10.5 Transport**

Commuting in Delhi today is a nightmare experience for all alike, be it the pedestrian, the motorist, or the use of public transport. In the current travel scenario, the entire commutation dependent upon the road based transport. The shortage in the number of buses is glaring. It has been observed that against the requirement of 7500 vehicles, only 6000 vehicles are available. Public transport facilities are absolutely inadequate. Roads are over crowded with larger number of motor vehicles, and travel speed has drastically come down. Motor vehicles in Delhi have increased from 5.73 lakhs in 1981 to 28.48 lakhs in 1998. Unless very serious steps are taken to improve the public transportation system, their number is likely to go upto 40 lakhs by the year 2001 and 60 lakhs by the year 2021. In fact, the road space has not increased proportionately to accommodate the increasing number of vehicles. At present, the available number of motor vehicles in Delhi is more than that of Mumbai, Kolkatta and Chennai put together i.e. 19,23,787. This result in extreme congestion on roads, and lead to increase in road accidents, fuel wastage and environmental degradation.

## 2.11 ENVIRONMENT

The term 'environment' in a collective sense, ordinarily means the surroundings, the circumstances in which human beings live or the surroundings and circumstances which influence their lives. Environment is being exploited for people's survival and its conservation is also essential for its survival.

In the blind race of development and search of better life, today, Delhi has become one of the most polluted cities in the world. The factors behind the heavy pollution in Delhi mainly include; over population, increasing number of vehicles, inadequate control on pollution 'from vehicles and industries', poor solid waste management, and development of city without proper planning and without environmental impact assessment. In Delhi city, pollution is rampant. It has been observed that the study area has all types of pollution at the high level, such as, air pollution, water pollution, land pollution and noise pollution.

Air pollution from vehicles, industries and thermal power stations; dumping of untreated toxic effluents into the river Yamuna, by various industries of Delhi, heaps of solid wastes lying uncollected, increasing noise level have altogether resulted into spread of various dangerous diseases which have made life in Delhi difficult and unpleasant. It has been also observed that the Delhi city is declared as the fourth largest polluted city of the globe<sup>(34)</sup>. The pollution level pertaining to air, water, land and noise in the study areas is discussed as below:

### 2.11.1 Air Pollution

In Delhi more than 2000 tonnes of pollutants are emitted in air every day putting the figure of annual deaths at 7500<sup>(35)</sup>. Among the air pollutants, Carbon

monoxide (CO) is estimated to be maximum at the rate of 1067 tonnes per day, followed by Nitrogen oxides (NO<sub>x</sub>) 323, Hydrocarbon (HC) 320, and Sulphur dioxide (SO<sub>2</sub>) 179 tonnes per day. About two- third (64 per cent) of air pollution is contributed by vehicular sources alone, and remaining only one- third of air pollution is contributed by other sources namely; thermal power stations (16 per cent), industries (12 per cent), and domestic and other sources (8 per cent). Second major cause of air pollution in Delhi after vehicular emission is the spreading of fly-ash into atmosphere from the thermal stations, which are generating about 4000 tonnes of fly-ash everyday.

### **2.11.2 Water Pollution**

The quality of water availability in the city has decreased to the large extent. In Delhi city the river Yamuna is the main source of raw water for fulfilling the high water demand of the city of Delhi. As mentioned earlier this river has been severely polluted and the condition is going to be more worsening. Besides dumping of high quantity of untreated effluents in Yamuna by industries located in Delhi, entry of thousands of tonnes of residue of pesticides & chemical fertilizers and chemical factory effluents into Yamuna, is another major source of Yamuna river water pollution. The drinking water of Delhi contains all these poisons because water treatment plants installed in the city do not treated the raw river water to remove either pesticide residues or industrial contaminants. If the proper prevention measures are not taken, these contaminants will render the water unfit even for bathing purposes.

In Delhi city, the people started to exploit the groundwater since the surface water is polluted. Exploitation of groundwater also extended to the large extent to satisfy the requirement i.e. groundwater levels falling in the range of 20-30 meter below the land surface in South western part of Delhi. As a consequence, the groundwater table has gone down to the larger extents, and experts opinioned that if this trends continues, this would be a great disorder in the systems in near future. Over exploitation of groundwater has disturbed the hydrological balance leading the decline in productivities of wells, increasing pumping cost, more energy requirements and brackish water upcoming, etc., Occurrence of high concentration of Nitrates, Fluoride and other harmful chemical concentration beyond the permissible limits are observed in the groundwater at several locations in Delhi.

### 2.11.3 Noise Pollution

Noise is emerging as a major pollutant and irritant in the city of Delhi. Its high intensity is a constant source of pain and disturbance for human beings. The increasing urbanization coupled with motorization and other related economic activities, have contributed to the mounting volume of noise. It has been observed that the equivalent noise level at various intersections varies between 76 to 82dB and maximum noise levels were found reach upto 100 dB as against the limit of 65dB<sup>(36)</sup>. Thus, the major cause of the high noise level in this city is traffic noise. Apart from traffic, Delhi people suffer from the noise from the loudspeakers, which are mainly used on all kinds of occasion of festivals, anniversaries, religious rites, and the elections.

#### **2.11.4 Solid Waste Problems**

It is estimated that the Delhi city generates about 0.6 to 1.0 kg per person of solid waste per day. It is calculated that about 7000 tonnes of garbage is generated in this city every day. About 30 per cent to 40 per cent of the solid waste is left uncollected which remain lying in the heart of Delhi's congested areas giving rise to various diseases namely gastroenteritis, cholera, plague, dysentery, jaundice, food poisoning, malaria, etc. Solid waste consists of paper, plastic, vegetable and other biodegradable matter, metals and non-metals. In Delhi, there is also risk of extremely hazardous solid waste from certain sources, e.g., electroplating industries, tannery, slaughterhouses, and hospitals.

Most of the solid waste is dumped in open land fill-sites. There is hardly any mechanism to recycle the waste and control the pollution due to organic and non-degradable garbage. Since 1950's over 12 large landfill sites have been packed with all sorts of non-biodegradable and toxic wastes of Delhi.

#### **2.12 INCREASING CONGESTION IN DELHI**

Wholesale trade activity in the city has got concentrated in an unplanned manner resulting in congestions, encroachment on public land, traffic bottlenecks and parking problems. Since the Delhi City is a main centre for trade and commercial activities, large number of trucks come inside and goes out of the city every day. It has been observed that about 4,500 trucks used to come to Delhi with goods and 3800 trucks used to go out of the city every day. Besides these, the goods, which are transported through railways, also require trucks to carry the

same to the distributive destinations. These activities cause serious bottlenecks through traffics and congestion in the city.

### 2.13 DELHI PLAN

The large-scale influx of refugee population after the partition of India, and the increasing movement of in-migrants from various parts of the country in search of employment opportunities, due to the advent of planned urban growth in Delhi, etc., caused the population explosion in the city. Over the years, Delhi began to sprawl haphazardly, the service systems were strained, the problem of housing became so acute, and subsequently the encroachment on public lands began. In order to redeem Delhi from this worsening situation, an **Interim General Plan** (1956) was prepared and implemented, and finally the **Master Plan** (1961) was prepared and came to force in the year 1962. The Master Plan was intended to correct the haphazard growth of the past and promote planned growth during its life span, i.e., from the year 1961 to 1981. This Plan was the first comprehensive planning exercise of a larger urban area, the national capital. The Master Plan Delhi-1962 was basically a land use plan, a transition into physical form of the planning policies and principles, an exercise in matching demography to land availability. It recommended having land use zones, larger scale peripheral expansion and generous standards in terms of physical and social infrastructure for all income groups. Planning in Delhi was conceived in a regional context, in which Delhi formed the core of a large metropolitan region identified as an area of about 25 sq. miles from urban Delhi. Development of six 'ring towns' (viz., Loni,



Ghaziabad, Faridabad, Ballabhgarh, Bahadurgarh and Gurgaon) around Delhi was envisaged as the instrument to secure balanced development of the region.

Urban Delhi was intended to have a population of 4.6 million upto the year 1981; the additional population (out of a projected population of 5.5 million for the year 1981) was proposed to be confined to the Ring Town. Based on the above in view, the city was divided into eight planning divisions, and each of them to be self contained in matters of work places, residences, recreational areas, shopping and other requirements. The Delhi Development Authority (D.D.A), an autonomous body, was constituted in the year 1957 with broad objectives of "promoting and securing the development of Delhi according to plan." The Delhi Development Authority was created as the nodal agency for planning and development of the city. It was empowered to prepare a master plan, zonal plans, to implement and enforce the plans and to develop, manage and dispose off lands in Delhi. It has also taken over functions of developing housing, commercial centers, parks, playgrounds, etc. Master Plan for Delhi provides a basic policy frame for guiding Delhi's development.

A progressive urban land policy-"scheme of large-scale acquisition, development and disposal of land in Delhi" was formulated (1961) with a view to achieving the objectives of the plan. A seed capital fund of Rs. 50 million was raised by the Government of India to facilitate the operation of the scheme. The Delhi Development Authority, the prime Development authority, was given responsibility to implement development schemes.



## 2.14 THE MASTER PLAN FOR DELHI 2001

The first master plan for Delhi was published in 1962 had a vision upto the year 1981. Further, for the development of post 1981, a modified Master Plan was supposed to be prepared immediately, thereafter. However, it was only in August 1990 that the modified Master Plan for Delhi with perspective year of 2001 was prepared and published. The Perspective Plan-2001 ensures an appropriate balance between the spatial allocations for the distributions of housing, employment, social infrastructure, shopping center, public and individual transport and so on, and adequate arrangements and reservations to accommodate different kinds of physical infrastructure for public utility systems.

Broadly, the use of land has been classified in nine categories of land uses, namely- residential, commercial, manufacturing, recreational, transportation, utility, and government, public and semi-public, agriculture and water body. These nine land use categories have been subdivided into 37 use zones. Each use zone is further sub-divided into 136 use premises, which are reflected in the layout plans. This three-tier land use control system is envisaged for various urban functions with most appropriate development of land.

The Master Plan for Delhi (MPD)-2001, thus, comprises a set of coordinated policies concerned with virtually all aspects of development of the city. The concept underlying the Perspective Plan is as follows:

1. Delhi to be planned as an integral part of its region.
2. Ecological balance to be maintained.
3. The central city area to be treated as special area.

4. Urban heritage of Delhi to be conserved.
5. The city center to be decentralised.
6. Mass transport system to be multimodal.
7. The urban development to be low-rise high density.
8. Urban development to be hierarchical.

The Delhi Development Authority has divided the entire Union Territory of Delhi into 15 zones (divisions) i.e. 'A' to 'P'. Of which, 8 divisions (i.e. 'A' to 'H') together formed the urban segment. Each zone is divided into different sub-zones (subdivisions) by the Development Authority for the purpose of having efficient development administration. The zonal (Divisional) plans shall bring details about the policies of the Master Plan, and act as a link between the layout plan and the Master Plan. As soon as the Master Plan for Delhi (Perspective-2001) was notified these zonal plans (for divisions) from 'A' to 'H' would receive the same status as the Master Plan for Delhi. The zonal (divisional) plans for zone 'J' to 'P' shall be prepared as per the development deeds. In the absence of zonal plan of any area, the development shall be in accordance with the Master Plan.

## **2.15 REGIONAL PERSPECTIVE**

In view of the fact that the problems of the city and their solutions lie beyond Delhi, the need for a regional approach for the planned development was felt as early as 1959 when the Master Plan for Delhi was under preparation. The original intent was to prepare a Delhi Regional Master Plan but legal tools at hand and other exigencies limited the efforts in identification of Ring Towns and Urban

Villages. It was in 1985, that the National Capital Region Planning Board Act was passed by the Parliament. The objective of the Act is to prepare a National Capital Regional Plan in order to deal with the problems of rapid growth of the National Capital, and the urgency of the problems related thereto.

The National Capital Region covers an area about 30,000 sq. Km. covering Union Territory of Delhi and sub-regions of Haryana, Rajasthan and Uttar Pradesh. The core objectives of the Regional Plan-2001, which was approved by the National Capital Regional Planning Board in November 1988 and in force from January 1989 (a) to reduce the pressure of population of Delhi, and (b) to achieve a balanced and harmonious development of National Capital Region.

## **2.16 LARGE SCALE LAND ACQUISITION, DEVELOPMENT AND DISPOSAL POLICY**

The large scale of land acquisition, development and disposal of land policy was thought to be an imaginative approach in planning and development of the city, and solving the housing problems, especially that of the poor. The Delhi Development Act provided for the formation of the Delhi Development Authority to assume the planned development of the city. Major Policy goals were, (a) to achieve optimal social use of land, (b) to ensure the availability of land in adequate quantities at the right time and at reasonable prices, (c) to prevent the concentration of land ownership in few hands and safeguard the interests of the poor and under privileged, (d) to control land values and to eliminate speculative profit. To achieve these goals, the Delhi Development Authority was to purchase land from Delhi Administration who used to acquire all land in the city. Once the

land is acquired, the Delhi Development Authority used to develop the land. Later the developed land was to be given to individuals and institutions. The undeveloped land was to be given to the house builder, cooperative societies for developing the same within three years. These components of land policy were devised with a view to introducing measures of control on land value and stabilizing land prices in the urban areas of the city. The Government of India provided financial support in the form of Seed Capital to be used as revolving funds. The land developed was to be sub-divided in various sizes of plots. The low-income group plots were to range from 80 sq. yards, 125 sq. yards to 200 sq. yards and high income plots range from 200 sq. yards and above.

The Master Plan had proposed for the development of 62,000 acres of virgin land up to the year 1981. Whereas, the Delhi Development Authority had acquired land till the life of Master Plan, i.e., the year 1981, only 44,936 acres, which is only 72.47 per cent of the deserved objective. Thus acquisition lagged behind by more than 21,000 acres, i.e., 22.53 per cent. The land, which was acquired, also could not be fully developed due to several factors. There was only 11,676 acres land, which was developed including 4181 acres developed for resettlement colonies. Of which, 30,000 acres of land to be developed for residential use. Thus, the development fell short by 45.87 per cent.<sup>(62)</sup>

The fact that more than two lakh families are squatting in Delhi is indicative of the failure of Delhi Development Authority to allot an adequate quantity of low-income plots at reasonable prices. In the year 1975, the cost of the cheapest, 80 sq. yards, plot was Rs. 3440, which is equal to one half of the annual salary of Low

Income Group category. (The Low Income Group category's annual income was of Rs. 7,200). It is extremely difficult for a family with small earnings to manage the necessary funds for affording the land for house. To ensure an equitable distribution of urban land, the Master Plan clause in the Large Scale Land Disposal Programmes specifically states that 50 per cent of the residential plots are to be allocated to Low Income Group, 30 per cent to Middle Income Group and 20 per cent to be auctioned to the High Income Group. At the time of mid-term appraisal of the Master Plan, the Ministry of Works and Housing observed that between 1960-61 and 1970-71, the High Income Group segment has got as much as 49.80 per cent of the developed plots through auction.

Alternative allottees (those whose land was acquired) were given 14 per cent of developed plots. The Middle Income Group and Lower Income Group could get only 24.7 per cent and 11.5 per cent of the total plots respectively. Unfortunately, the land distribution ratio of 50:30:20 (Low Income Group: Middle Income Group: High Income Group) could not be achieved. The achieved distribution was 12:25:53. It is worth to note that only 15 per cent of Delhi's population constitutes of High Income Group and achieved 53 per cent of the allotted land. Of the lower segment population, the Low Income Group represents 36 per cent. Followed by, Middle Income Group 32 percent, and Economically Weaker Section 17 percent respectively. It has been observed that the distribution of land up to March'1982 was 47.1 per cent to High Income Group 10.9 per cent to alternative allottees, 21.1 per cent to Middle Income Group and 20.9 per cent to Low Income Group. Thus, the concentration of land in higher income people

could not be prevented, and the operation of the land policy was failed miserably. The land policy was said to be a bold and progressive step, as for the first time in the history of urban development in this country, the entire land within the urban limits was notified for nationalization in order to promote planned urban growth and meet land requirement of all communities especially the lower-income group too. Land values, instead of being controlled and stabilizing have been skyrocketing.

A conflict in objectives also exists between the goal of safeguarding the interests of the poor and maximizing the profits. To maximize profits, the Delhi Development Authority (DDA) auctions the most desirable and most central part of land to high-income groups, because that fetched the largest profits.

Ever since the initiation of the 1961 Land Policy, land values in Delhi have continued to rise. Increase in land prices is a natural corollary of the acute imbalance between supply and requirements of land. The Delhi Development Authority has frozen private development and has sold most of the land to the high-income group. Land values in some localities were found to have gone up more than 10 times in 10- 12 years. Increase of the order 400 to 500 per cent have also been noticed in most of the other localities in the span of eight years.

## **2.17 HOUSING IN DELHI**

Delhi recorded an unprecedented growth of population, which is not commensurate with the housing stock. A large part of the population growth arises due to migration into the city. The same trend in increase in population is expected to continue in future too.

In the year 1991, urban Delhi had 1.9 million households, living in different types of housing developments. Of which, 56 per cent of the households live in informal housing developments, such as, squatters, unauthorized colonies and traditional living areas. It is seen that the formal housing supply has been absolutely inadequate in terms of numbers, and is even irrelevant to socio-economic characteristics of the community.

According to the Slum and Jhuggi Jhompri Department, 1994, the housing scenario presents a dismal picture. About 75 per cent of Delhi's population live in substandard areas with the following break up: 20 lakh people live in Jhuggies, 10 lakh in the notified Slum areas, 15 lakh in Jhuggi Jhompri Resettlement colonies, 5 lakh in unauthorized colonies, 12 lakh in the regularized colonies and 5 lakh each in the urban and rural villages. Thus, three-fourth of Delhi's population was living in substandard areas. Every 7<sup>th</sup> Delhiite was a Jhuggi dweller (no).<sup>(95)</sup>

It is observed that the population of Delhi is increasing at the rate of about 5 per cent per annum, by about 5.0 lakh people per year. This generates a need of about 1.0 lakh dwelling units per year. According to the Planning Department, Government of Delhi, there was a shortage of 239,000 dwelling units in Delhi in 1991. The different types of houses available in the city along with the projected number of houses for 2001 are presented in Table 2.8.

**Table 2.8 Different Types of Housing in Delhi city**

Sl. No.	Type of housing	1981	1991	Projected 2001
1.	Plotted Development	153 (13.3)	354 (18)	304 (16)
2.	Group Housing			
	(a) Delhi Development Authority	66 (5.7)	230 (12)	209 (11)
	(b) Cooperative Group Housing Society	1 (0.1)	80 (4)	152 (8)
3.	Urban Poor Housing			
	(a) Resettlement and squatter units	28.5 (24.7)	366 (19)	437 (23)
	(b) Slum rehousing units	16 (1.4)	17.4 .9	38 (2.0)
4.	Government Employees Housing	72 (6.3)	150 (8)	129 (6.8)
5.	Traditional Areas and Urban village housing	367 (31.8)	390 (20)	361 (19)
6.	Unauthorized regularized housing	192 (16.7)	350 (18.1)	270 (14.2)
	Total	895.50 (100.00)	1937.40 (100.00)	1900.00 (100.00)

**Source:** Delhi Development Authority Delhi (1981)

## 2.18 ORGANIZATIONS INVOLVE IN PROVISION OF HOUSING

In Delhi city, various organizations are involved in provision of houses to the needy communities. Some of the important organisations, which involve in housing provision are studied carefully, and are presented as below:



### 2.18.1 Delhi Development Authority

Delhi Development Authority was started in the year 1957 as a single planning authority for the entire Delhi region with the main objective of meeting the massive challenges of rapid urbanization and preventing the haphazard growth.

At the time of formation of Master Plan (1<sup>st</sup> September 1962), it was estimated that housing backlog was about 2.5 lakhs in the city. A simultaneous campaign for reducing the huge backlog was undertaken in three fronts, such as,

- Through disposal of developed plots.
- Allotment of land to co-operative societies, and
- Building houses and flats for different income group people of the society.

The Delhi Development Authority has introduced several housing schemes in the study area for providing houses to different segments of the society, i.e., Economically weaker section, Low-income group, Middle-income group and High-income group. To implement several schemes, the households are classified into several segments, such as, Janta, group, Lower income group, Middle-income group and High income group and evolved schemes accordingly for their development. Monthly income is used as a phenomenon to classify the households under different segments. In the year 1979, the family monthly income upto Rs. 4200/- is grouped under Janta groups, family monthly income from Rs. 4201-7200/- is under Low-income group, from 7201-18000/- is under Middle-income group, and the above are grouped under High-income group categories. In 1996, it was revised, and upto the annual income of Rs. 72000/- are grouped under Janta group for “Janta Housing Registration Scheme 1996”. However, the other groups

monthly or annual income classification is not yet declared as no scheme after 1979 has come up for these groups. It has been observed that the “New Pattern of Registration Scheme of 1979” for Low-income group and Middle-income group categories is still continuing since it could not complete the requirement of the registered residents under the scheme, and the backlog still continues.

To meet the challenges in housing demand in Delhi, Delhi Development Authority has been actively introducing massive housing programmes time to time. Of which, some of the programs met their target and left. Some programmes still continue since they could not meet the target. In addition to this, new programmes are introduced from time to time for providing houses to the needy communities.

It has been observed that in the year 1992-93, the Delhi Development Authority has provided shelter to more than a million families through its various schemes which include 250,000 units on regular plotted schemes, 240,000 dwelling units for Jhuggi Jhompri resettlement and 230,000 Delhi Development Authority flats, 195,000 dwelling units have been generated through cooperative housing societies and 85,000 dwelling units in Rohini Residential Scheme.

A sum of 59 per cent of the Delhi Development Authority flats (149,000) have been provided to Janta and Low Income Category. This is besides 240,000 Dwelling units in Jhuggi Jhompri resettlement schemes which mainly cater to the Economically Weaker Sections (popularly known as Janta Group). As such, about 60 per cent of total housing has been provided for Economically Weaker Sections/low-income population.

In 1970's, the Delhi Development Authority has launched the house building programmes for the economically weaker section, Low-income group and Middle-income groups. The housing programme of Delhi Development Authority (DDA) was started in the year 1966-67, and only 160 flats were constructed. In the year 1980-81, it constructed 30,000 flats, and by the year 1997-98, the number of flats rose to 282461.

Design of the houses has been varied and got approved from time to time. These houses are divided into four groups on broad basis. They are:

1. Economically Weaker Sections Single Room Tenements -25 sq. mtr.
2. Low-Income Group Two Room Houses -50 sq. mtr.
3. Middle Income Group Three Room Houses -75 sq. mtr.
4. High Income Group -100 sq. mtr.  
and above.

The Delhi Development Authority has so far announced 23 housing schemes, and the following four schemes are alive today. They are:

1. New pattern of Registration scheme 1979, and it is exclusively meant for the Low-Income Group and Middle Income Group categories.
2. Ambedkar Awas Yojana 1989, and it is exclusively meant for Schedule caste/Schedule tribe registrants experienced in respect of 25 per cent quota fixed under New pattern of Registration scheme, 1979.
3. Janta Housing Registration Scheme 1996, and this scheme was launched exclusively for the economically weaker section.

4. Housing Registration scheme (HRS), which is exclusively launched for retiring government employees, who are going to retire within the next five years. No income slab is fixed for availing this scheme and it is open to the general public.

#### **2.18.1.1 Self-financing scheme**

The High Income Group category was taken into consideration under the Self Financing Scheme (SFS) of 1977. Under this scheme, the Delhi Development Authority (DDA) built houses for people in high and middle income groups. According to this scheme, the construction will take two years of period. The Delhi Development Authority announces the design of building, location of the building and the rate of building. The entire amount of the building has to be paid in five installments, and the registration is done by paying the first installment. The remaining amount has to be paid in another four installments during the construction stage of the building, and once the complete payment is done, the Delhi Development Authority handover the building to the client. The Delhi Development Authority has built over 52,000 houses under various Self Financing Schemes.

In the year 2000, the Delhi Development Authority has discontinued the popular Self Financing Scheme (SFS). In the year 2001 onwards, Delhi Development Authority started to sell houses to the High-income categories as free hold property only after the houses are built, on payment of the full price of the houses and named them as High Income Group housing. However, hire-purchase scheme for the poor continue.

### **2.18.1.2 Cooperative Housing**

Cooperative Housing has been recognized as an overlapping sector between public and private production system. In the early stages, i.e. during the sixties, land was allotted to cooperative house building societies on individual plot basis. Subsequently, land had been made available on group housing basis due to increasing demand and premium on urban land. Generally the peripheral development is carried out by the local, while the internal services and development are the responsibility of the cooperative society.

#### **(a) Group Housing Societies**

The Delhi Development Authority has allotted land to 518 cooperative group-housing societies so far, and developed housing in Delhi. These provide about 75000 dwelling units. Of which, about two-third of the dwelling units (60 per cent) serve to Middle Income Group category. Besides these, land has been allotted to 156 cooperative societies in Dwarka (Papankala) during 1993-95, which are under progress.

#### **(b) Plotted Societies**

About 30,000 residential plots of various sizes have been generated by 126 House Building Societies. These provide housing to about 60,000 families. Of which, most of them (80.00 per cent) belong to higher income group category.

### **2.18.1.3 Low-Income Housing**

The Delhi Development Authority operates schemes for low-income households (the households having monthly income of less than Rs. 4200/-). They

are Janta Housing Scheme, Community Service Personnel Housing Schemes, and Housing for the Economically Weaker Sections. Community Service Personnel and Janta Houses are subsidized to the extent of 33.3 per cent. In 1979, the Delhi Development Authority announced registration for the Economically Weaker Section houses, and 1.7 lakh application were received. The Delhi Development Authority had constructed 38,676 houses under Janta Housing Scheme, Community Service Personnel and Economically Weaker Sections categories by March 31, 1985. About 42 sq. m built up area was provided for Janta Housing Scheme and Community Service Personnel Housing Scheme. Later the plinth area was reduced to 24 sq. m. Under these schemes, the houses are sold on hire purchase, and the cost thereof being paid on several installments, which is spread over 15 years period. In the Community Service Personnel Housing Scheme, the housing is highly subsidized. Allottees have to pay only Rs. 20 per month over a period of 15 years without any cash down payment <sup>(93)</sup>. The Delhi Development Authority has completed all the registrations made for in 1979 under the Janta housing scheme without any backlog. In 1996, the Delhi Development Authority again launched a new scheme namely "Janta Housing Registration Scheme-1996", which is still continuing. Under this Scheme, the households whose annual income upto Rs. 72000/- is eligible to apply. As per this scheme, a Janta flat has one room, a Kitchen or a Kitchenette and a toilet. The plinth area is in the range between 18 and 25 sq. m. The pattern of housing is multistoried structure. These flats are mainly located in different parts of the outskirts of the city, such as Dwarka, Rohini (Phase III & IV), Nerela, Kondli, Gharoli and Shivji Enclave Extension. The Clients

do not have locality choices at all. As and when the flats are available, for disposition, is offered to the registrants according to the waiting list.

#### 2.18.1.4 Janta Housing Scheme

The Delhi Development Authority is providing housing, through the scheme namely "Janta Housing Scheme" for the low Income Group people. The cost of land and the cost of construction of houses in different localities are varying to the larger extent by category wise, such as, Economically Weaker Section, Low-Income Group, Middle Income Group and Self Financing Scheme. Variation in cost of land in different places, such as, Dwarka, Narella, and Rohini PH III, are presented along with different category of household in Table 2.9.

**Table 2.9 Land Rates In Residential Areas of Delhi City**  
(PDR For 2001-2002 approved in file Ni. F21[1142]97/2000/HAC)

[In Rs. Per sq. mtrs.]

SL NO.	CATEGORY	DWARKA	NARELLA	ROHINI PH III
1	SFS	4812	3522	3800
2	MIG	4010	2935	3166
3	LIG	2406	1762	1900
4	EWS	1604	1174	-

(Sources: Delhi Vikas Sadan, 2002)

This table illustrates that land rates are varying to the larger extent from Economically Weaker Section to Low-Income Group, Middle Income Group and

Self Financing Scheme in all different locations, such as, Dwarka, Narella, and Rohini PH III. The variation of land cost between Economically Weaker Section and Low-Income Group is 150.00 per cent, between Economically Weaker Section and Middle Income Group it is 250.00 per cent, and between Economically Weaker Section and Self Financing Scheme it is 300.00 per cent in Dwarka and Narella locations. Where as in Rohini PH III, the difference is slightly less. In this location, Economically Weaker Section category is not observed. The difference of land rate between Low-Income Group and Middle Income Group is 166.00 per cent, and between Low-Income Group and Self Financing Scheme it is 200.00 per cent. The above analysis clearly shows that in the same location, the Delhi Development Authority fix different land values for different income group households, such as, Economically Weaker Section, Low-Income Group, Middle Income Group and Self Financing Scheme, since the lowest and lower income group persons are given subsidized rate for reducing the disparity among the people. Otherwise only the economically well-off people (haves) can afford houses in these prime localities.

### **Cost of Construction**

Cost of house construction is also varying, as per the Delhi Development Authority, among various floors, such as, Ground Floor, First Floor, Second Floor, and Third Floor even in the same category of personal housing, i.e., in Janta housing scheme. The cost of construction of different floors under Janta housing scheme is presented in Table 2.10.



**Table 2.10 Revised final cost of - C/o 256 Janta Houses isolated pocket 6  
Plot No. 4 & 5 Nasir pur, Pappan Kalan Dwarka Ph.II**

1.	FLOOR	GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	THIRD FLOOR
2.	Plinth area of the flat in sq.m	26.90	26.90	26.90	26.90
3.	Cost of construction per sq.m of the flat @ Rs. 4500/-	121050	121050	121050	121050
4.	Community facility charges @ Rs. 10.76 per sq.m max. to Rs. 750/- in case of MIG Rs. 500/- in case of LIG. No charges for Janta category	-	-	-	-
5.	Floor equalization charges & 4.5per cent on 4,5,6 above. Only on ground floor flats which is to be divided in upper floors.	121050 (+) 5447	121050 (-) 1210	121050 (-) 1816	121050 (-) 2421
6.	Departmental charges @ Rs.10per cent for MIG, LIG and @ 6.50per cent for Janta category	126497 (+) 8222	119840 (+) 7790	119234 (+) 7750	118629 (+) 7711
7.	Administrative charges @ 1per cent for MIG and LIG. No charges for Janta category	134719	127630	126984	126340
8.	Interest charges for 15 months for flat constructed upto two floor and for 18 months for flats constructed more than two floors @ 15per cent P.A.	134719 30312	127630 28717	126984 28571	126340 28427
9.	Land premium @ Rs. 1604/- per sq. m on gross area basis @ Rs. 1980/- sq. m	165031 53300	156347 53300	155555 53300	154767 53300
		218331	209647	208855	208067
	Say Rs.	218400	209700	208900	208100

(Sources: Delhi Vikas Sadan, 2002)

This table enumerates that the cost of construction for the Ground Floor is slightly higher than the other floors, and it is decreasing along with increase in height of buildings. The construction cost for the third floor is Rs. 208100, whereas the ground floor is Rs. 218400, which is 104.94 per cent higher than the third floor's construction rate. Similarly, difference of cost between the third floor and second floor is 100.38 per cent, and between third floor and first floor is 100.76 per cent. It clearly shows that the ground floor occupants have to pay more money to the Delhi Development Authority compared to the rest of the floor occupants.

As Delhi Development Authority works based on no profit and no loss, the cost of flat depends on the price of the flat prevailing around the time of issue of allotment. During the year 1996-98, the price of flat was approximately in the range of Rs. 1.25 lakhs to Rs. 1.60 lakhs. In the year 2001-2002, the price of flat became around Rs. 2.0 lakh to 2.5 lakhs.

The Delhi Development Authority's efforts are towards the improvement of human habitation and to make available simple utilitarian and provide for inexpensive houses to the people, belonging to all income groups, i.e., Economically Weaker Section, Low-Income Group and Middle Income Group categories.

The Delhi Development Authority built 36,594 dwelling units during the period of 1991 and 1996. Of which, there were 10,915 dwelling units built in 1991-92, 7876 units in 1992-93, 8,661 units in 1993-94, 6844 units in 1994-95 and 2,298 units in 1996-97.

The Delhi Development Authority had a plan to build 20,000 dwelling units during 1999-2000 within the constraints such as, availability of land and services like water supply and power. At present, the Delhi Development Authority has a backlog of 47,817 registrants for flats under different schemes.

### **2.18.2 Housing by Slum and Jhuggie Jhompri Department**

Slum and Jhuggie Jhompri Department, which is one of the departments of Municipal Corporation of Delhi, and is implementing number of schemes for improving the quality of the life of jhuggi dwellers scattered all over Delhi, as well as slum dwellers, residing in the notified slums, mostly concentrated in the walled city and its extensions.

Some basic facts about the slums of Delhi are presented as follows:

- More than 2.5 lakhs persons migrated to Delhi every year from all over the country.
- About 9.5 lakhs persons are living in notified Slums.
- About estimated population of 30 lakhs live in Jhuggie Jhompri Clusters
- About 60,000 absolutely shelterless persons forced to sleep on pavements.

The Slum and Jhuggie Jhompri Department work under the board framework of the Slum Areas Improvement & Clearance Act, 1956 and in addition to it, various schemes, providing facilities of night stay through night shelters, resettlement of squatter families located on project lands needed by the land owning agencies, in-situ up-gradation of the jhuggie cluster, taking care of the old housing stock, etc., these schemes are mainly financed from the Plan resources being made available by the Government of National Capital Territory of Delhi.

Slum and Jhuggie Jhompri Department has been implementing several schemes pertaining to providing shelter to the downtrodden and needy communities since the year 1990. The most important schemes are presented as below. They are:

1. Development of sites & services plots for relocation of squatters.
2. Community Hall-Cum-Barat-Ghars/Basti Vikas Kendras/ in the areas under the command of Slum & Jhuggie Jhompri Department.
3. Upgradation of Slum & Jhuggie Jhompri Cluster and informal shelter by on-site relocation of Jhuggie Jhompries.
4. Environmental Improvement in Urban Slums.
5. Construction of Pay & Use Jan Suvidha (toilet facilities) Complexes.
6. Structure Improvement & Rehabilitation of Katras (slums).
7. Construction of flats/ incremental houses for Katra dwellers in walled city and other areas.
8. Containing the size of Jhuggie Clusters and capturing open spaces in Jhuggies clusters for use as Shishu Vatikas/ Common Spaces.
9. Centrally Assisted Slum Development Programme.
10. Study and preparation of perspective plan for the development of the Delhi Slums.

## **1. Development of Sites & Services Plots for Relocation of Squatters**

Delhi City continues to face very serious problem of mushrooming growth of Jhuggie Jhompri clusters in which the land belongs to various land owning agencies such as, Delhi Development Authority, Municipal Corporation of Delhi, New Delhi Municipal Committee, Delhi Cantonment Board, Railways, Government Departments, Central Public Work Department, Land & Development, Departments of Delhi Government and other autonomous organizations.

Approximately, 2.5 lakhs fresh migrants arrive to Delhi, every year, in search of gainful employment opportunities, which are easily available in unorganized & informal segments of the metropolitan economy. The huge influx of population from all parts of the country to this city resulted into proliferation of Jhuggie Jhompri clusters/squatter settlements.

Slum & Jhuggie Jhompri Department has drawn a preliminary list of 1080 Jhuggie Jhompri cluster as on 31.3.91 on the basis of field assessment. According to the rough estimates, there were about 4,80,929 Jhuggies in Delhi, in the year 1994, and the projected estimates, the number of Jhuggies is to be around 6 lakhs in the year 2001<sup>(16)</sup>. However, from the year 1990-91 onwards, in Delhi, a three-pronged strategy has been adopted for dealing with the problems of Jhuggie Jhompries keeping in view the policy of the Government in regard to Jhuggie Jhompries dwellers, i.e., on one hand, no fresh encroachments shall be permitted on public land, and past encroachments, and the existing squatters, which had been in existence prior to 31.01.90 would not be removed without providing

alternatives, on the other. The slum and Jhuggie Jhompari Department has implemented three major strategies to provide shelter to the needy downtrodden communities. They are presented as strategy-I, strategy-II and strategy-III as below:

#### **Strategy- I**

Relocation of those Jhuggie household where the land owning agencies are in a position to implement the projects on the encroached land pockets as per requirements in the larger public interest and they submit requests to Slum & Jhuggie Jhompari Department for clearance of the Jhuggie cluster for project implementation and also contribute due share towards the resettlement cost.

#### **Strategy- II**

On-site upgradation of Jhuggie Jhompari clusters, and informal shelters in case of those encroached land pockets where the land owning agencies issue no objection certificate (NOC) to Slum & Jhuggie Jhompari Department for utilization of land.

#### **Strategy- III**

Extension of minimum basic civic amenities for community use under the scheme of Environmental Improvement in Jhuggie Jhompari clusters and its component scheme of construction of Pay and Use Jansuvidha Complexes containing toilets and baths and also introduction of Mobile Toilet vans in the clusters irrespective of status of the encroached land till their coverage under one of the aforesaid two strategies. This scheme is continuing since its inception, i.e., April 1987.

## **Programmes for Relocation of Jhuggie Jhompari Squatters**

It envisaged development of sites & services plots of 18 sq. mtrs each with a 7 sq. mtrs undivided share in the open courtyards as per the cluster court town house planning concept for resettlement of squatter families. The resettlement complexes are an integral part of the new residential development schemes of the Delhi Development Authority.

The policy frame-work of the scheme, was initially conceived as follows:

Normally sites measuring about five hectares to be utilized for provision of 1000 plots/residential units by achieving a density of 200 units per hectare. In each of the layout, one hectare of land to be earmarked for provision of community facilities, such as, primary schools, open spaces, shishu vaticas, basti vikas kendras, community facility complexes, dustbins (dhalaos), etc. The layout plans consist of models of 4 to 6 units with a common courtyard. Full coverage of 18 sq. meters plot is permitted to the squatter families on the ground floor and subsequently, when the affordability of the allottees improve, first floor can be added by the beneficiaries, approachable by a ladder/staircase provided on the ground floor. Independent water closets seat and bathroom on the ground floor with cooking shelf are an integral part of the dwelling units, so as to make the residential unit self contained.

Slum & Jhuggie Jhompari Department is responsible for the provision of infrastructural facilities within the layouts of the resettlement complexes for squatters, while the peripheral services are to be taken care of by the Delhi Development Authority as part of its integrated development projects. The trunk

services are provided by the subject matter Agencies/Departments, such as Jal Board (Water Board) provides drinking water supply to the inmates of the settlement.

The Framework of the scheme was approved by the Delhi Development Authority vide item No. 33 dated 4.2.92. The salient feature of the scheme as approved by the Delhi Development Authority were as follows:

1. Relocation of squatters situated on project sites needed by the Land Owning Agencies.
2. Slum wing to be provided with a total sum of Rs. 44,000/- per target family. Of which the land owning agencies contribute Rs. 29,000 per eligible squatter family, the State Government contribute Rs. 10,000/- out of the plan funds per family, and Rs. 5,000 by the respective beneficiaries for defraying the cost of relocation and resettlement under the scheme.

Delhi government had been providing plan support for this particular scheme on yearly basis. Since inception of the scheme till December 2001, with the land pockets made available for the Slum and Jhuggie Jhompari Department has shifted 38,254 squatter families from various Jhuggie Jhompari cluster in Delhi to the relocation colonies at Dwarka, Rohini, Narela, Molar Bandh, Holambi Kalan, Holambi Khurd, Bhalswa, Bakarwala, etc.

Recent resettlement at the site of Narela (a pocket at the outskirts of the city), its main features along with the plan are given as below: The layout plans of resettlement colony at Narela is given in Annexure – D.



1. Resettlement site is a part of Narela sub-city, which has ample job opportunities in both formal and informal sectors.
2. Resettlement site is linked with efficient transport and infrastructure services.

## Design

3. Organized layout/environment with proper roads, infrastructure facilities including recreational open spaces.
4. 18 sq. meter and 12.5 sq. meter plots provided in cluster with common open space for social interaction.
5. Plots provided with possibilities of incremental growth, depending upon their affordability and rise in income with time.
6. Low-rise high-density development, keeping in view their vernacular life styles.
7. High density so as to reduce per hectare cost of infrastructure without sacrificing the environmental quality.
8. Ample open spaces for both passive and active recreation.
9. Adequate Right of way of roads with drainage, electrification and plantation.
10. Community facilities, such as, schools, dispensary, public distribution shops, shopping centres, balwadi, samaj sadan, basti vikas kendra etc.

## Finance

11. The Housing loans is being made available to the value of Rs. 25,000/per family, by the Housing and Urban Development Corporation (HUDCO) directly.
12. The loan is sanctioned in the name of either woman or in the name of woman and husbands so as to ensure the targeted use.
13. The repayment period is kept as 15 years and Equated Monthly installment (EMI) is worked out to be Rs. 300/- per month i.e., Rs. 10/- per day.

A co-ordinated effort of all the local agencies is being done to ensure the availability of water, electricity, social services, shopping centers, schools, community centers, ration depot, and vocational training so that the persons who have been relocated, should get opportunities and empowerment for better human development. Initiatives have also been taken to start thrift societies, provide sewerage, balwari, adult literacy classes and also to give loan to the individual beneficiaries on soft interest rates so that they can built their houses on the plots allotted to them.

The idea behind is to deal with this gigantic and complex problem is to resettle the existing clusters on permanent sites and to ensure that future migration takes place in a planned and purposive way and the process of migration becomes skill and productivity oriented, and not restricted to petty jobs or business in which the poor virtually compete with one another.

## **(2) Construction of Community Halls /Basti Vikas Kendras**

Slum and Jhuggie Jhompari Department of Municipal Corporation of Delhi is providing the facility of multipurpose community facilities complexes in relocation colonies and that of Basti Vikas Kendras in Jhuggie Jhompari clusters and in-site upgraded slums. The multipurpose community facilities complexes are designed for bringing social cohesiveness amongst the community so that the community is in a position of to organize their socio-cultural functions. The multipurpose community facilities complexes are provided to meet the requirement of the community.

## **(3) In-Site Upgradation of Jhuggie Jhompari Cluster and Informal Shelters:**

One specific policy intervention contemplates in-site upgradation of Jhuggie Jhompari cluster/informal shelters on the encroached land, wherever the land owning agencies issue a no objection certificate, enabling the slum & Jhuggie Jhompari department to go ahead with this strategy. This scheme envisages that the existing Jhuggie Jhompari dwelling units are upgraded in an improved and modified layout by socializing the distribution of land and amenities amongst the squatter families.

The minimum basic civic amenities proposed to be provided during in-site up-gradation are :

1. Drinking water supplies through Municipal water hydrants, one water post for 30-35 persons.
2. Paved pathways and drainage facility upto out-fall.

3. Street lighting at a yardstick on one pole every 30 meters.
4. Pay & Use Jansuvidha Complexes, containing toilets/bathroom for community use. One water closer seat for 20 to 25 persons and one bath for 20 to 50 persons.
5. Dustbins for garbage disposal, at a yardstick of one garbage bin for 15 households within 55 meters, covering of all dwelling units.
6. The shelter is constructed by the beneficiaries under self-help approach with technical extension services by the slum & Jhuggie Jhompari Department of Municipal Corporation of Delhi.

This approach envisages the re-planning of huts (Jhuggies) in modified layouts by re-distributing the encroached land pockets amongst the squatter families. The Jhuggie households are given sites of 10 to 12.5 sq. meters in the modified layout at the encroached sites for reconstruction of pucca informal shelters.

#### **(4) Environmental Improvement in Urban Slums**

The scheme of environmental improvement in Jhuggie Jhompari clusters was approved by the Government of National Capital Territory of Delhi in March, 1987 for covering the population of 10 lakh. The department of Urban development Government of National Capital Territory of Delhi conveyed that the basic civic amenities are provided to all Jhuggie Jhompari clusters to improve the standards of living of the slum dwellers, and discussed are as follows:

1. Water Supply – one tap for 150 persons.

2. Sewers – Open drains with the normal out-flow avoiding accumulation of waste water.
3. Storm water drains – to drain out the storm water quickly.
4. Community bath- one bath for 20-50 persons.
5. Community latrines –on lavatory seat for 20-25 persons.
6. Widening and paving of existing lanes.
7. Streets light-poles meters apart.
8. Community facilities, such as, community centers, crèche, dispensaries non-formal educational centre, park, etc.

**(5) Construction of Pay & Use Toilets (Jansuvidha Complexes):**

The scheme is basically intend to take care of the environmental problems generated through mass defecation in open by the Jhuggi dwellers/slum dwellers.

The National norm under the scheme envisages provision of water closet seat for 20-25 persons, and also one bathroom for 20-25 persons. It has not been possible to follow these national norms in Delhi due to the prevailing physical constrains.

These complexes are run based on “Pay & Use Concept” and maintained by such Non Government Organization’s /Agencies who are also assigned responsibility of planning & construction. Slum & Jhuggie Jhoppari Department has to provide some incentives to the Non Government Organization’s to enable them to construct the Jansuvidha complexes (toilet complexes) and subsequently maintaining the same for a period of 30 years.

**(6) Structural Improvement and Rehabilitation of Slum Property (Katrass):**

The main objective of the scheme is to provide repairs in slum/properties/buildings including repairable dangerous properties under the control of Slum & Jhuggie Jhompari Department. Under the scheme, the structural repairs are undertaken only in those Katrass (slums) where cost of structural repairs does not exceed Rs. 1,700 per sq. meters. Further, it is to be carried out in only those Katrass (slums) where the per capita habitable space after structural improvement does not fall below 3 sq. meters.

**(7) Construction of Flats/Incremental Houses for Katra Dwellers in the Walled City and other Areas**

The task of eradication of Slum in the National Capital Territory of Delhi is gigantic. In the Walled City, buildings/ Katrass (slums) /properties, where most of the families are residing are in dilapidated conditions and unfit for human habitation. Presently, the Slum Wing has about 2900 properties/Katrass (slums) and are located in the Walled City and its extension areas. Of these, 365 properties/Katrass (slums) have already been identified dangerous, and at least 4000 dwelling units are required for resettling the occupants of these Katrass (slums).

**(8) Shishu Vatikas/Common Spaces in Jhuggie Jhoppari Clusters:**

This scheme is being implemented since 1994-95 with the following objective:

Protection of open available vacant spaces within the Jhuggies Jhompari Clusters and notified Slums by constructing boundary walls with an opening for

utilizing the retrieved spaces for the purposes of establishment of Shishu Vatikas/ Tot-lots and or as an open space for common use of the community.

#### **(9) Centrally Assisted Slum Development Programme**

During the year 1996-97, for the first time, The Ministry of Finance, Government of India, made a provision for Slum Development programme in the state.

The scheme shall be applicable to all the states and union territories having urban population and funds will be allocated to states on the basis of urban slum population.

The components of this scheme include:

1. Provision of physical amenities like drinking water supply, storm water drains, community bath, street lights, widening and paving of existing lanes, sewers, community latrines, etc.,
2. Community infrastructure: Provision of Community centres to be used for Pre-School education, non-formal education.
3. Community primary health care centres buildings.
4. Provision for shelter: The scheme must have a component of shelter upgradation or construction of new houses (Including Economically Weaker Section) as may be required.

#### **(10) Survey Study & Preparation of Perspective Plan for Delhi Slums**

Mushrooming growth of Jhuggie cluster in Delhi city is a well known phenomenon. Government has taken resettlement of Jhuggies Jhompari families in a planned manner, and till the end of 1984-85, about 2.40 lakhs Jhuggies

Jhompari families were resettled under various schemes from time to time. The Jhuggies are increasing day by day in the city.

The growth of slums has resulted into various environmental degradation as well as creating social tensions and other law and order related problems. Therefore, there is a need to have a detailed study for preparing a perspective plan for an integrated approach for the development of Slums. Perspective plan for 20 years will be prepared on the basis of the findings of the study. However, the Delhi Govt. Vide order No. F-1/2/90/UD/2529, dated 19.2.96, had constituted an Expert Study Group under the chairmanship Shri M. N. Buch, former Vice Chairman, Delhi Development Authority, to study the problems and issues relating to the rehabilitation of Slum dwellers of Delhi city.

The aforesaid all scheme (10 scheme) plan outlay, expenditure, etc., are presented in Table 2.11 for having the financial status of the schemes at a glance.

### **2.18.3 Government's (both Central and State Government) Scheme for their Employees**

Government of India and the Delhi State Government are constructing housing colonies for their own servants. The houses are built in various sizes for different income groups and allotted to Government servants based on their seniority in job and income. The maintenance of the buildings is done by the Public Agencies. Allottees pay a nominal rent, i.e., ten per cent of their basic salary. Needless to say that the houses, in all categories are highly subsidized. The space standards are liberal especially for higher income categories. This housing scheme is also available for low-income employees too on rental basis. The demand for



Table No 2.11 Scheme wise financial outlay and expenditure for both on-going as well as new schemes

(Rs. in lakhs)

Sl. No.	Name of sector/ scheme/programme	Ninth plan 1997-2002 outlay	Actual expdr during 9 <sup>th</sup> plan 1997-98 to 1999-2000	Annual 2000- 01 actual expdr	Annual plan 2001-02		10 five year plan 2002-07		Annual plan 2002-03	
					Approved Outlay	Anticipate d expdr	Proposed Outlay	Of which capital content	Proposed Outlay	Of which Capital Conte
1	2	3	4	5	6	7	8	9	10	11
1.	Development of sites & services plots for relocation of squatters	3500.00	1555.50	2250.00	2400.00	2400.00	15000.00	15000.00	3000.00	3000.00
2.	Providing built up facilities of community Hall-Cum-Barat-Ghars/Basti Vikas Kendras/ in the areas under the command of S & JJ Deptt.	800.00	237.70	149.89	100.00	100.00	500.00	-	100.00	-
3.	Up gradation of Slum & JJ Cluster and informal shelter by on-site relocation juggle jhompries	1000.00	301.30	62.37	150.00	200.00	-	-	200.00	-
4.	Environmental improvement in urban slums	2000.00	853.62	199.97	200.00	200.00	-	-	200.00	-
5.	Construction of pay & use Jan Suvidha Complexes.	2500.00	411.56	150.00	100.00	100.00	-	-	100.00	-
6.	Structure improvement & Rehabilitation of Katras	800.00	580.62	198.19	200.00	200.00	1000.00	-	200.00	-
7.	Const of flats/ incremental houses for Katra dwellers in walled city and other areas.	500.00	37.88	28.61	100.00	100.00	500.00	-	100.00	-
8.	Containing the size of Jhuggie Clusters and capturing open spaces in Jhuggies clusters for use as Shishu Vatikas/ Common Spaces	200.00	41.62	50.00	50.00	50.00	250.00	-	50.00	-
9.	Centrally Assisted Slum Development Programme	3000.00	7216.83	1915.00	19000	19000	10000.00	-	2000.00	-
10.	Study and preparation of perspective plan for Delhi Slums	200.00	1.78	-	-	-	500.00	-	150.00	-
	Total :-	1475.00	11492.60	509273	5330.00	5380.00	30750.00	15000.00	6200.00	3000.00

Source :Slum and Jhuggi Jhompri Department, Municipal Corporation of Delhi, 2001

housing in this scheme is much higher than the supply due to several factors, such as:

1. People do not require spending lump sum money to procure the houses.
2. No need of paying money in installment basis.
3. The designs of the houses are good.
4. The houses have very good infrastructure facilities.
5. By and large, the environment is very good in the Government housing colonies since only Government personals reside in the buildings, and they have little concern towards environment.

#### **2.18.4 Traditional/ Indigenous Settlements**

These are the areas comprising of the old city and urbanized villages, which generally form the core of urban Delhi. Most of these areas are declared as 'Slums' They are providing housing to about 3.90 lakh, families.

- (i) The Old City: Covering about 1850 ha. of area, it provides accommodation of nearly 2.60 lakh families. Of which, bulk of these (72 per cent) belongs to the Economically Weaker Section and Low Income Group categories of population. The morphology of housing is compact, high density and low rise. Sewerage facility is available for about 75 per cent of these houses. The housing clusters are characterized by social patterns of aggregation and traditional way of living. It has been observed that there is a strong mix of workplace and housing in this area. Being centrally situated, fast commercialization is taking place in this area.

(ii) Villages: There are 110 villages available within urban Delhi, and are providing shelter to 1.30 lakh families, these cover about 2000 ha. of land. Of which, bulk of the residents (77 per cent) fall in the Economically Weaker Section and Low Income Group categories. Over the years, spatial subdivision of traditional social group is vanishing in these villages.

#### **2.18.5 Individual Housing System**

The individual housing system has two types. They are formal and informal houses. In the formal houses, people either purchase plots and construct houses, or purchase the constructed houses. In the informal houses, the following types of housing system are predominantly activated. They are:

- 1) Unauthorized Colonies
- 2) Squatter Settlements

Delhi does not have planned housing for the poor and lower middle class. The poor people who migrate from both rural and urban areas cannot afford to pay the rents or the growing market prices of permanent shelter or buy land at fabulous prices charged by builders and developers. They, therefore, pitch their shelter on degraded, marginal lands, which are considered unfit for human habitation. In Delhi city, over two-third of the housing stocks are attributed to squatters, unauthorized settlements and slums. The numbers of such units are increased by 50 per cent during the last decade. This informal housing system is discussed as below:

### **2.18.5.1 Unauthorized Colonies**

During the decade 1941-51, Delhi's population became more than double in size due to arrival of refugees after the partition of country. Delhi was not prepared for this sudden growth. As a result, Delhi started sprawling in a most disorganized way in whatever direction it could expand. During this period some colonizers purchased large areas of agriculture land at the fringe of the city, mostly outside the urban limits and after subdividing it, sold it to all willing buyers who could not afford to buy developed land. These are those colonies where the settlers have legal title to the land but the subdivision of the land and construction of the houses and undertaken without the permission of the competent authority. Most of these colonies are constructed on undeveloped and semi-developed land without provision of infrastructure facilities. These unauthorized colonies violate all the existing provisions of Municipal Laws with regard to the development of land and building plans. The residential area, where the built up area emerged up in a very haphazard manner, with a result that it has become very difficult and in some cases almost impossible to provide municipal services, particularly roads and sewerage. Also there is not enough land in most of these colonies to meet requirements of basic amenities, such as open spaces, recreation grounds, community buildings, schools, hospitals, etc.

#### **Characteristic of Unauthorized Colonies:**

There are certain characteristics, which are common to most of the unauthorized colonies. They are:

1. Located at either on the periphery of the urban agglomeration or in pockets of vacant land within the urban agglomeration.
2. Low income of the household at the initial stage.
3. Low level of investment in land development and buildings.
4. Inadequacy of community facilities and services.
5. Progressive improvement of shelter as when resources permit.
6. A variety of dwelling types as a result of variations in the requirements of individual households and the freedom to build.

The growth of unauthorized colonies in Delhi is presented in Table 2.12.

**Table 2.12 Growth of unauthorized colonies in Delhi city.**

Sl No.	Period	Number	Cumulative
1.	Before 1962	110	110
2.	1962-1967	101	211
3.	1967-1974	260	471
4.	1974-1977	141	612
5.	1977-1983	245	857
6.	1983-1990	225	1082

Sources: Delhi Development Authority, Government of India, 1994.

It has been observed from the table that the unauthorized colonies in the city is increasing at an alarming rate, i.e., it was just the total of 110 in the 1962, and it rose to 1082 in the year 1990. It clearly shows that the city is growing in multi-dimension.

Looking at the growth of unauthorized colonies and at the same time having no answer for their housing problem, the Delhi Government has taken some main policy decisions to regularize the unauthorized colonies. As a result, at the outset, in 1966, unauthorized constructions located in the densely populated areas, which did not violate land use control are regularized. Subsequently, in 1969, Local Authorities were asked to prepare a regularization plan for unauthorized colonies. Finally, three successive announcements were made in 1977, 1978 and 1982, regularizing all unauthorized colonies in Delhi City. Local Bodies have been directed to provide water and electricity facilities to them.

#### **2.18.5.2 Squatter Settlements**

The rapid growth of population of Delhi and the shortage of developed land at reasonable prices, has forced people to encroach on both public and private land. It seems to be that the process of encroachment is growing at faster rate.

A squatter settlement presents a picture of a poor, under serviced, overcrowded and dilapidated settlement consisting of makeshift, improvised housing area with an ambiguous legal status regarding land occupations. Delhi attracts 5 lakhs in-migrant population every year, of which about 25 per cent end up in the squatters and slums. About 15,000 Juggies are added every year, and aggravating the problem. The squatter population of Delhi has increased from 12,749 in 1951 to 2,59344 in 1991. It has been observed that in the year 1997, there was 1100 Jhuggies Jhompari cluster with a population of 6,00,000 available in this city. Growth of squatter settlement in the city is presented in Table 2.13.

**Table 2.13 Growth of Squatters in Delhi**

Sl No.	Year	Squatter population	No. of Jhuggies (houses)	No. of Jhuggies Jhompri clusters
1.	1951	63745	12,749	199
2.	1961	214075	42,815	544
3.	1971	312970	62,594	1124
4.	1981	493545	98,709	290
5.	1991	1296720	2,59,344	929
6.	1994	2340645	4,80,929	1080
7.	1997	30,00000	6,00,000	1100

*Sources: Slum & Jhuggi Jhompri Department, Municipal Corporation of Delhi, 1997.*

The table illustrates that the number of Jhuggi Jhompri clusters, the number of squatter houses (Jhuggi) and the number of squatter population have been increased at a phenomenal rate from 1951 to 1997. It reflects the non-availability of houses, and also non-availability of proper land for accommodating the downtrodden community of the society in the urban system.

The unending stream of migrant labours to the city in order to eke their living by creating marginal jobs and clusters. These clusters can be seen on the marginal open spaces, on the banks of nullahs, (drainage canal), sloping land on the sides of railway lands, along the roads, near major work centres, transports nodes, etc. They construct minimum tenements from the recycled materials like the cheap scrap straw, waste material salvaged from city garbage like plastic sheets, gunny bags, torn tarpaulin, scrap tin sheets, wooden planks, etc. These squatters are irregular in shape, size and are unplanned. There is almost total absence of public sanitation and personal hygiene, which reflect the squalors of their lives. Squatters are the visible signs of the economic inability of the poor to procure land and

shelter through market transactions. Such clusters usually serve to economically poorest section of the society. The average size of a cluster caters to nearly 20 to 50 families. The squatter clusters are mostly single storied with rural characteristics features. The morphology indicates a fragmented and unorganized process of growth. The average sized of land is 15-30 sq.m. per family. Such, clusters more or less provide shelter to the Economically Weaker Section categories.

The dwellers in squatter settlements consist mainly of rural migrants. Migration to the city is through a network of territorial, kin and caste affinities. The initial nucleus of the settlement is formed by smaller groups consisting of relatives, fellow village men, caste or community members, Subsequent expansion occurs by the addition of similar cluster. The overall pattern of the settlement is an agglomeration of such cluster. The groups are controlled by a pradhan. The pradhan provides links with the world outside the settlement. His permission has to be sought before building a shelter. He provides security from the dadas (gundas) of the settlement and from the police and establishes links with the Local Councilor or Municipal Corporater. The pradhan fully exploits his position and extracts money from dwellers. The pradhan register the jhuggi cluster, takes a stay order from courts against demolition of the settlement, and organizes processions and dharnas (satyagrahas) for the provision of amenities in the settlement.

## **2.19 VALMIKI AMBEDKAR AWAS YOJANA (VAMBAY)**

There are two Central sector programmes available, which targeted towards the urban poor, namely the Swarna Jayanti Shahari Rozgar Yojana (SJSRY) and National Slum Development Programme (NADP). The Swarna Jayanti Shahari



Rozgar Yojana attempts to provide employment opportunities in order to bring the urban poor above the poverty line, while the National Slum Development Programme is basically a programme for improving the environment of the urban slums. The urban poverty alleviation strategy is incomplete without a significant component pertaining to housing delivery for the slum dwellers and homeless people.

In order to fill this gap, in a major policy initiative, the Prime Minister of India announced a new Centrally Sponsored Scheme namely the **Valmiki Ambedkar Awas Yojana (VAMBAY)** on August 15, 2001 to ameliorate the conditions of the urban poor, who live below the poverty line.

The objective of Valmiki Ambedkar Awas Yojana is primarily to provide shelter or upgrade the existing shelter for people those who live below the poverty line in the urban segment in a march towards achieving the goal of slum less cities with healthy urban environment.

The Government of India will be providing four lakh houses to the urban poor in 5,161 towns and cities across the country. This scheme contains 50 per cent subsidy from the government and the rest 50 per cent will be provided to the beneficiary as loan, which is repayable in 15 years with an installment of Rs.208 to Rs.210 per month. On an average, those families who have a monthly income of minimum Rs.2400 would be eligible for this scheme.<sup>(50)</sup>

During the current financial year, 2001-02, a modest beginning was made with a limited sum of Rs.100 crore for this program. However, as per the Ministry of Urban Development, during the 10<sup>th</sup> Plan period (2002-2007 A.D.), when the

Valmiki Ambedkar Awas Yojana will be launched in full swing, the annual allocation will be Rs.1000 crores, which will be matched with a long-term loan by the Housing and Urban Development Corporation (HUDCO) of Rs. 1000 crore on a 1:1 basis. The rate of interest of this loan will be the same as the rate of interest charged by the Housing and Urban Development Corporation for Economically Weaker Section housing. State Government has the option to mobilize its matching portion of 50 per cent from other sources, such as, their own budget provision, resources of local bodies, loans from other agencies, contributions from beneficiaries or Non Government Organizations (NGOs), etc. In all cases, however, the Government of India's subsidy will only be released after the States' matching share of 50 per cent is been released. Both the subsidy and the loan (when it is required) will be released by the Housing and Urban Development Corporation (HUDCO). The funds will be released by the Housing and Urban Development Corporation either to the State Urban Development Agency (SUDA), District Urban Development Agency (DUDA) or any other agency, which will be designated by the State Government.

Selection of beneficiaries will be made by the State Urban Development Agency (SUDA)/ District Urban Development Agency (DUDA) in consultation with the Local Authorities. To implement the scheme, help of reputed NGOs also may be enlisted. They will formulate the projects, prepare estimates and submit the same for sanction to the State Government, which will in turn recommend to the Government of India for release of funds allocated for each State.

The following percentage break-up is directed to follow in selecting the beneficiaries:

- |    |   |   |                            |
|----|---|---|----------------------------|
| 1. | SC/ST   | - | not less than 50per cent   |
| 2. | Back wards classes  | - | 30per cent                 |
| 3. | Other weaker section  | - | 15per cent (OBC, BC, etc.) |
| 4. | Physically & mentally disabled & handicapped persons and others | - | 5per cent                  |

According to the Valmiki Ambedkar Awas Yojana scheme once the beneficiaries are identified, they must be provided title as a pre-condition for the loan or subsidy. The title to the land should be in the name of the husband and wife jointly or preferably in the name of the wife. Till the repayment of the loan, if any, the houses built with Valmiki Ambedkar Awas Yojana funds along with the land shall be mortgaged to the State Government/Implementing agency. No provision is made for land acquisition in Valmiki Ambedkar Awas Yojana. No hard and fast type/design is prescribed for Valmiki Ambedkar Awas Yojana dwelling units. However, the plinth area of a new house should normally be not less than 15 sq. Mts.

The upper financial limits for construction of Valmiki Ambedkar Awas Yojana housing unit normally will be Rs. 40,000/- with the provision for sanitary toilet too. However, in Metro Cities with more than 1-million population, it will be Rs. 50,000/- and Mega Cities (Delhi, Mumbai, Kolkata, Chennai, Hyderabad and Bangalore) it will be Rs. 60,000/- per unit.

## **2.20 AASHRAY ADHIKAR ABHIYAN (AAA)**

Aashray Adhikar Abhiyan (AAA), a Non Government Organisation (NGO), which is working under the Action Aid India (AAI) started its operation from March 2000, having the main objective of providing night shelter to the homeless. It has the vision to empower and mobilise the homeless, to form a body of their own in order to assert their rights and take up their issues at all levels. In fact, the rights are provided to the citizens of India in the Constitution (Articles 14,15,19,21,243, etc), but it is still in paper form only. The Aashray Adhikar Abhiyan (AAA) made an attempt to bridge the ever-widening gap between the Delhi's society and the homeless. Very recently, it has started health intervention program too in certain pockets of the city, which include in front of Meena Bazaar, Jama Masjid with support from the World Vision, Institute Of Human Behaviour and Allied Sciences (IHBAS), Sahara, for the development of the homeless persons.

## **2.21 SULABH SUCHALAYAS**

The Sulabh International Social Service organizations has been actively involved in construction and maintenance of public toilets, baths and urinals on behalf of the Local Bodies. It is nationally and internationally acclaimed non-government organization, which is working in sanitation sector. It has developed technologies for safe and hygienic human waste disposal system, and named it as Twin-Pit composting toilet, popularly known as Sulabh Suchalayas, which means "cheap and easy toilet". The Sulabh model also aimed at providing sanitation to the poorest of the poor people of the society. The government has adopted it as the best solutions for the poor people sanitation problem. Sulabh builds shower and

low cost pour-flush toilet complex on government's land, employs local residents as caretakers and cleaners. These toilets are freely available for female and children while the male are asked to pay Rs. 2 per use.

It requires two liters of water for flushing, resulting in an economy of water. There is no vent pipe for the exit of gas, and therefore, it is also eco-friendly. This technology abolished the system of manual cleaning of human excreta and served as an effective alternative to the problem of open-air defecation. About 100 such complexes are working in Delhi, and are set to remove the problem of insanitation and environmental pollution. Since 1974, the concept of maintaining public toilets-cum-bath centres on pay and use basis has become very successful because of these Sulabh Suchalayas. At present, there is an increasing demand for Sulabh toilet complexes and 60 per cent of homeless people are using the same.

The Sulabh International improved the quality of the toilet facilities. The homeless group has started to use the Sulabh toilets too. As Sulabh has taken over these toilets from the Municipalities for a contracted period of 30 years. The Municipal Authorities have been relieved from the task of operation and maintenance of these toilets. This system has proved to be a boon for the Local Bodies in their endeavour to keep the city clean and the environment friendly. These complexes have been widely welcomed by the Public and Government Authorities due to their remarkable cleanliness and having good management system. Pay and use system ensures self-sustainability without any burden on the public exchequer or the Local Bodies.

The most remarkable factor about the Sulabh Suchalayas is that it does not take any grant, assistances, or subsidy from any agency, national or international, in any form. The Local Bodies give land and funds for setting up public toilets-cum-bath complexes, and for constructing the same to the Sulabh, and the Sulabh is maintaining the same on pay-and-use basis. It raises its own resources by taking 20 per cent implementation charges on projects and the money thus collected is spent on running the Sulabh Organizations.

## **2.22 CONCLUSION**

Swelling population, fragile and insecure incomes, and legal and regulatory regime hostile the urban poor from safer, higher value sites in the city. Instead, they are crowded in precarious locations, such as, open drains, low-lying areas, the bank of effluent tanks, vicinity of garbage dumps, open pavement and streets. They survive in chronic fear of eviction.

In spite of several efforts have been made by the Government for housing the urban poor, the net output is very less. Paradoxically, more people are living under absolute poverty, inhabiting in stinking slums, being caught in traffic snarls, unemployed, families are split, and so on.

The precarious housing problem can be minimized by evolving feasible housing related policies, and formulating viable programs and implementing the same in the study area (Delhi city). To formulate feasible polices and programs to provide homes to the homeless persons of the city, the homeless persons, their problems, government's intervention to this particular group are studied carefully and presented in the subsequent (third) chapter.

## HOMELESSNESS AT A GLANCE IN THE STUDY AREA

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### 3.1 INTRODUCTION

“Walk down the streets of Delhi in the mid night, one can see thousands of workers, dead with exhaustion, sleeping on the roads, on pavements, on carts, etc. There are hardly any shelters in Delhi. At signals, women with drugged, near-dead babies slung across their pregnant bellies, beg with glazed eyes. There is not a single night shelter for women in the whole of Delhi. The homeless have only Delhi's harsh weather, the boots of drunk policeman and sexual abuse, especially for the women and children”.<sup>(96)</sup>

The most visible manifestation of urban poverty is the crowding of larger size of masses of the urban poor under the open sky, completely exposed to the extremes of nature and surviving with inhuman conditions. They remain on the fringe of the society, without even being considered relevant for political reasons since they do not form a 'vote bank'.

Delhi city being the national capital of India, and also one of the major industrial commercial and financial centres of the country, attracts larger size of migrants from different parts of the country, as well as people from other countries too. Delhi has the largest migrant population amongst all the cities of India. According to the census 1991, 95 lakh migrants are living in Delhi. Of which, 42 per cent migrated from Uttar Pradesh, 10 per cent migrated from Bihar, 9 per cent migrated from Haryana, 7 per cent migrated from Punjab, 5 per cent

migrated from Rajasthan, 4 per cent migrated from Kerala and 3 per cent migrated from Tamil Nadu. Presumably, many of these migrants are confined in the lower socio-economic group of the country and largely form the labour class.

Thus, it becomes a focal point for those in search of livelihood who can be absorbed in the city's burgeoning unorganized informal sector. Many of them come in need of employment, and thus their first priority is earning money, and at times for this they either involuntarily or voluntarily tend to gravitate towards poor quality of housing, and sometimes into no dwelling units, i.e. on pavements and other open spaces.

The people who reside on pavements and other open spaces lack access to housing, as they cannot afford the type of conventional housing available in the urban system. This group is even far from the different housing scheme meant for the urban poor (e.g. resettlement colonies for squatter settlements). This group is considered as the 'poorest of the poor group' in the urban systems, and thus far away from any type of housing present in the urban system.

These people who were initially forced to live on the streets with time find there future on the streets and with the streets. Over the years, they are not even ready to accept government efforts of improvement for their living conditions (like developing night shelters) rather they feel more convenient on the streets nearer to their work places.

The people who cannot afford any type of housing live an open life in a crowded city, with no family life, no privacy for bathing, sleeping, eating or relaxing. These people do not have any enclosure to meet their simple needs of life, no place to keep their few possessions and no protection against weather.



In Delhi, many of those living on the open pavement are single, and use the pavement only for sleeping at night. They cover the floor with a gunny bag or a newspaper, which is collected from the municipal garbage bins. Some use the small stone as pillows putting a piece of gunny bag on it. Some use their clothes bag as pillow. Some of them use nothing at all and expose their bodies to the external elements, and sleep in some where on the footpath.

After coming to the city, location has the highest priority to the newcomer. Being unfamiliar to the urban conditions one has to be closer to his/her work places. The person has the greatest need for employment opportunity, for water and for food markets. The new arrival, thus directly goes to the city centre. As these people are mostly unskilled and are capable of only doing labour class work they are forced to move around the work place round the clock for getting wage labour work. Since they do not either have money, time and energy to daily commute long distances, they try to live closer to their work place. Since no housing is available as per their affordability nearer to their work place, these people start live on the pavements of the city.

Far from being a burden on the city's economy, they are supplying with vast pool of cheap labour for the unpleasant jobs that organized labours do not like to do. They can afford to do this and yet survive because they are living on footpaths and other open spaces, and incur no overhead charges on either shelter or transportation. These people initially live in open places as temporary measure, until they can locate and afford some type of housing. Unfortunately, most of them are never able to acquire better housing and live all their lives on the footpaths due to sending their saving to their hometowns.

### 3.2 ORIGIN AND GROWTH OF HOMELESSNESS IN DELHI

Homelessness in Delhi came about in a major way during the partition of the country in 1947, when a large influx of people came to Delhi, and started to live on pavements, open spaces or with whatever minimum shelter they could have since most of the persons came as refugees. Moreover, the same decade set pace to have industrialization in this region, which provide more number of jobs to the youths. As a result, more number of rural people migrated to the Delhi city in search of jobs. The rural youths who migrated to the Delhi city for searching jobs started to stay somewhere in the city and then started to search for job. In the process of searching for jobs what ever they brought along with them from their hometown they lost since they could not find jobs and become orphan virtually. This situation forced them to stay either in the slums or on the pavements.

It has been observed that the Delhi city had 6000 homeless persons in the year 1954 <sup>(40)</sup>. In the year 1963, the Municipal Co-operation of Delhi under took a survey and revealed that only 3,484 persons lived as homeless, but in the same year a Non-Government organization observed that the city had 12000 homeless persons <sup>(11)</sup>. It shows that the Government did not want to give the actual picture of this neglected segment, and also never implemented any program for their development till the year 1964.

The available homeless persons in the city are presented in Table 3.1 in chronological order from 1961 to 2001. The table illustrates that the increase in the homeless persons in the city is phenomenal. It is also observed from the

table that percentage of persons increase under the homeless category are recorded as 243.50, 148.75, 119.07, and 197.68 in the year 1971, 1981, 1991, and 2001 respectively in the system. It clearly shows that the available homeless persons of the city are increasing along with the development of the city.

**Table 3.1 Homeless persons in Delhi City**

S. No.	Year	Homeless populations of Delhi	Percentage increase (%)
1	1961	6,216	
2	1971	15,136	243.50
3	1981	22,516	148.75
4	1991	26,810	119.07
5	2001	53,000	197.68

*Sources: Census of India, 1961, 1971, 1981, 1991, 2001*

However, it has been observed from different literature that the assessment of available homeless persons in the city shows different data, and this difference is presented in Table 3.2 by source wise. The table reveals that all the five sources of data show different figures in estimation of available homeless persons in the city. It has been also recorded the reason for the discrepancies and stated that (a) little time duration has been spent for this particular survey, and (b) all the homeless people who cannot be counted, since some work late into the nights, some sleep in narrow alleyways, and some on roof tops and verandahs that cannot be seen from the streets. Therefore, the figure arrived at only represent the miniature picture of the actual figured.

**Table 3.2 Homeless persons in Delhi City**

SI. No.	Source	Year	Available homeless persons
1	Census, India <sup>19</sup>	1991	26810
2	Slum and Jhuggi Jhompri Department <sup>89</sup>	1991	50,000
3	Delhi Development Authority <sup>88</sup>	1985	1,00,000
4	Planning Commission, Government of India <sup>78</sup>	1999	1,50,000 3,00,000
5	Ashriya Adhikar Abhiyan NGO <sup>1</sup>	2000	about 1,00,000 but could count only 53000

### 3.3 LOCATIONAL DISTRIBUTION OF HOMELESS PERSONS IN DELHI CITY

Though the homeless persons are living considerably in the Delhi city, they more or less concentrated in few pockets, and little are spread all over the city due to several factors. To understand the concentration of homeless persons in the city, at the outset, the entire city is divided in to seven zones, such as, Walled city area, Old Delhi area, Central Delhi area, South Delhi area, North Delhi area, East Delhi area, and West Delhi area and is shown in Fig. 3.1. Subsequently, the available number of homeless persons in different small pockets is compiled according to the area covered under different zones, and arrived at the numbers in different zones. The available homeless persons in different zones are presented in Table 3.3. This table reveals that about one-

third (29.55 per cent) of the total homeless persons are concentrated in the walled city area, and the rest of them are concentrated in the other zones.

**Table 3.3 Locational Distribution of Homeless Persons in Delhi City**

Sl. No.	Zones	Number of homeless	Percentage of homeless
1	Walled city	15,595	29.55
2	Old Delhi	4,943	9.37
3	Central Delhi	5,388	10.21
4	South Delhi	5,616	10.65
5	North Delhi	8,391	15.90
6	East Delhi	5,636	10.69
7	West Delhi	7,196	13.63
	<b>Total</b>	<b>52,765</b>	<b>100.00</b>

*Sources: Ashriya Adhikar Abhiyan (AAA), Action Aid programme by Planning Commission, 2001.*

The aforesaid all seven zones of the Delhi city, such as, Walled city, Old Delhi, Central Delhi, South Delhi, North Delhi, East Delhi, and West Delhi are discussed thoroughly by their location specific characteristic, functions, etc. and are presented as follows:

### 3.3.1 The Walled City

The walled city of old Delhi, otherwise known as Shahjanabad – the historic core built for the population of 60,000 persons by the Mughals in the 17<sup>th</sup> century, covering an area of about 569.00 hectare. The city was developed in typical Mughal style, densely built with organic street pattern. It is surrounded by the wall with six gates – Kashmiri Gate, Mori Gate, Lohari Gate, Ajmeri Gate, Turkman Gate and Delhi Gate. The city exhibits features typical of traditional Indian cities, with a mixed land use pattern, combining a high concentration of

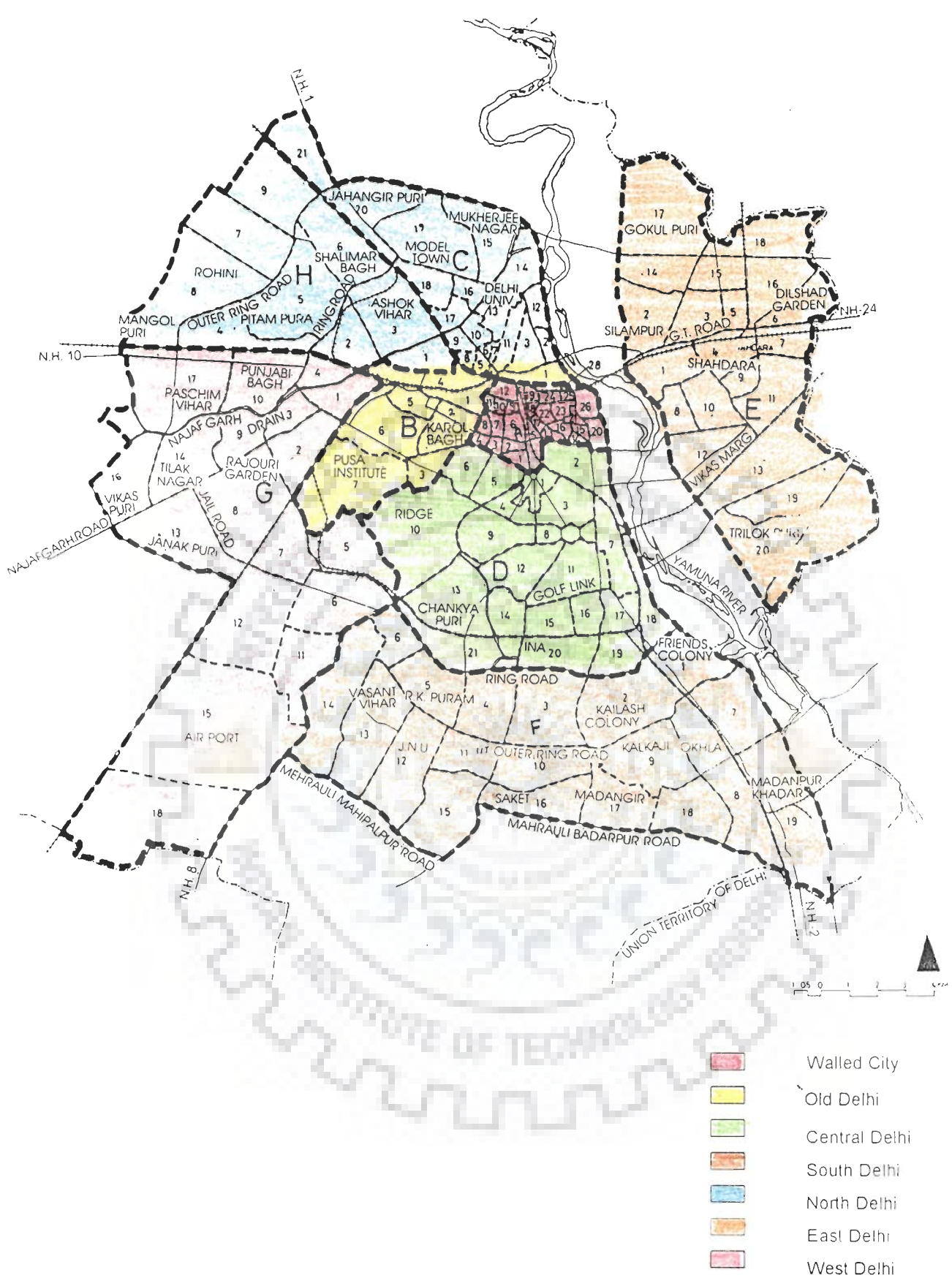


FIG. 3.1 DIFFERENT ZONES WHERE HOMELESS ARE CONCENTRATED



residential units with an important aggregation of commercial and small-scale manufacturing establishments. However, this area has remarkable characteristic feature with extremely high residential densities combined with an equally impressive congestion of economic activities.

Once a beautiful city, now poses a chaotic picture as one of the most congested parts of the Delhi city. The population was increased in this area to its saturation upto the year 1961 but since then there has been a large scale infill by commercial use by replacing the residential use. As per the estimate by the year 1981, about 90 per cent of the wholesale trade, 25 per cent of the retail trade, 28 per cent of informal sector units and 15 per cent of the industrial units of Delhi city are functioning in the walled city.<sup>31</sup> The number of registered commercial establishments have increased by 700 per cent in two decades (1,55,000 units in 1981 compared to 22,000 units in 1961).<sup>32</sup>

In the Walled city, many of the Asia's biggest markets are located. Some of the noted among are: the Gold Bullion Market in Dari ba Kalan, the Electronics Market in Lajpat Rai, the Spice Market in Khari Baoli and the Market for books and stationary in Nai Sarak. The bustling economy of the walled city provides employment opportunities to the migrant labour. As a result, there are eight labour markets functioning in the walled city. They are: Fountain Chowk in Chandni Chowk, Bank hande Temple in Opposite to Old Delhi Railway Station, Fatehpuri Mosque crossing Chandni Chowk, Khari Baoli, Jama Masjid, Chawri Bazar crossing. Hauz Qazi, Lohari Gate and S. P. Mukerjee Road. Besides these labour markets, there are few major commercial roads are also functioning in the

system, and are Chandni Chowk road, Netaji Subhash Marg, Ansari Road, Khari Baoli, Naya Bazar road, Shardanand Marg, Ajmeri Gate Bazar, Church Mission Road, S. P. Mukerjee Marg and H. C. Sen Road. These industrial establishments, wholesale and retail trade centres, labour markets, commercial roads, etc. are attracting the migrants, and providing wage labours to them.

These labourers sleep on streets nearer to their work place due to shortage of rental housing in these areas as per their affordability. Thus, at night, many of them are found sleeping under the verandah in bazaars, on pavements and other open grounds. According to the Slum wing of the Municipal Corporation of Delhi, 40 per cent of Delhi's homeless live in the walled city<sup>(55)</sup>. Another major reason responsible for the high concentration of homeless in the walled city is the presence of large transport nodes like Old Delhi Railway Station and Inter State Bus Terminal (ISBT) in this area. The Old Delhi Railway Station is entered in the Guinness Book of records for handling the largest number of trains in the world.<sup>(3)</sup> Old Delhi Railway Station transport a mind boggling of 1.7 lakhs passengers everyday on 188 trains across 1122 train routes, which proves that this area has lot of economic opportunities for labourers<sup>(97.)</sup>

The Inter State Bus Terminal (ISBT), which also lies within this zone, is also a major transport node from where links are made to all cities and towns of the Northern India. These major transport nodes not only play a key role in contributing to the general economic buoyancy of the old city and increased employment opportunities in the area, but also indirectly help the migrants by providing wage job. As soon as their arrival in the city, they are in immediate proximity to (or easily directed to) locations where opportunities for unskilled



labour are high, and where sleeping space can be found on pavement, streets, open spaces, parks, etc.

There are different types of activities pertaining to transporting goods available in the walled city area. Loading and unloading activities in the markets is another common activity, which is very common during the night time when the migrants are occupied to larger scale. Transporting passengers by cycle rickshaw in this densely populated and very buoyant market area, with the adjoining railway stations and the bus terminal, is another activity, which is also attracting a significant number of homeless workers in the walled city. It is estimated that there are about 15,595 homeless people found in and around walled city area in the year 2000<sup>(2.)</sup>.

### **3.3.2 The Old City**

The old city area is evolved from time immemorial and the walled city area is also confined within this old city area, which lies in the heart of the city. The old city area is extremely congested since houses are built very closely together and the population density is much higher.

As it is adjacent to the walled city, the characteristic feature of the general economic activity is much similar. Thus, it has labour markets, which have become specialized in different types of occupations. The most specialized labour markets which are available in this area are: (a) Sarai Rohilla market is for carpenters, (b) the idgha market for mechanics, (c) the Sadar Bazaar crossing market for handcart pullers/pushers and loaders/unloaders, and (d) the Paharganj market for house painters, construction workers and helpers.

Besides the aforesaid important labour markets, almost every node also acts as a small labour market, since intensive economic activities are functioning in this segment.

More or less unskilled labour concentrate in this locality since this area is lying near the main trading centre of the city here. Many people who sleep in the open spaces are found as rickshaw pullers, and most of them sleep on their rickshaws along the road side or on the pavement, besides their rickshaws. The homeless in this area are also found over and beneath Inter State Bus Terminal (ISBT) Bridge, around the Mori Gate and Kashmiri Gate, Rani Jhansi Road, Qutab Road, Idgah Road, Azad Market Road to Pul Mithai road, Chamelian Road and Desh Bandhu Gupta Road.

About 80 per cent homeless are found in and around the Old Delhi including the walled city.<sup>(56)</sup> Thus heaviest and most conspicuous concentrations of homeless are found in the old city and its extension including walled city, where municipality has logically-opened 10 of its 18 night shelters (6 in the walled city itself). The morphological and economic characteristics of the historical core of the capital city contribute to its specific attractions to a floating population without shelter.

### **3.3.3 The Central Zone**

The central zone is also lying in the heart of the city, which has several diversified activities. The Indian Parliament, the residence of the Union Government ministers, and the ministerial staffs are located in this area. The Presidential Estate housing the Rashtrapati Bhawan- the residence and office of the President of India is also located in this area. The Cannaught place, the Gole

market, the Punchkuin road market, the Shankar market, and the Asaf Zai market, which are the major retail markets confined in this area. These markets are very much familiar according to their functions, and people from far away used to come and collect goods from these markets. Though these markets are functioning well and have larger quantity of transaction of goods, the number of homeless persons are found very less since this area is considered as the most important place, and the homeless are not allowed to sleep.

The homeless are mainly concentrated around Connaught Circus, Mandir Marg, New Delhi Railway Station, Shankar Market, Bangla Sabib Gurudwara, Gole Market, Minto Road, Hanuman Mandir and the Sacred Heart Cathedral on Baba Kharak Singh Marg, Chitra Gupta Road near Panchkuian Road.

#### **3.3.4 The South Zone**

The south zone is lying in the Southern in part of the Delhi city, and touches the edge of the Delhi-Haryana State boarder. In this zone, people from different economic groups reside and most of the areas are considered as residential area. A little part of this area has few industrial estates.

The economic activities in this zone are a mix of industry and commerce. The main industrial estate in this zone is Okhla industrial estate. In the industrial estate work continues for almost 24 hours in a day. The main commercial centres in this zone are Nehru Place, Bhikaiji Cama Place, Basant Lok and New friends colony. In the commercial centres economic activity is over for a day by 6.30 pm. In this area many squatter settlements have been developed and are inhabited by the industrial workers. The main labour markets here are located in Bhogal,

Okhla, Kalkaji, Ashram Chowk, Dhoola Kuan Chowk, Malviya Nagar Chowk, Mehrauli , Nerhu Place and Lajpat Nagar.

The homeless persons in this zone are scattered but some of them are concentrated in Nizamuddin, Lodhi Road, around All India Institute Medical Sciences, Jawaharlal Nerhu Stadium, Bhogal, Ashram Chowk, Nehru Place, Kalkaji, and Okhla. The homeless are not generally seen in the government colonies and in the private residential areas. One of the reasons for this could be the presence of night watchmen and patrolling police. The homeless are most visible at the worshipping centres in this zone.

### 3.3.5 The West Zone

This zone is situated in the Western part of the Delhi city, and it touches the edge of the Haryana state in the West.

This area confines with several upper middle class residents. The residential area of this zone can be divided into two separate areas of East and West, with the Ring Road forming the division. The Eastern side has residential areas mixed with economic activities. The main colonies available in this segment are Karol Bagh, Patel Nagar, Trinagar, Inderpuri, Gulabi Bagh and Anand Prabat. On the Western side, which is new compared to the East, there is a clear-cut demarcation of residential and industrial zones. The residential colonies in this segment are Janakpuri, Vikashpuri, parts of Rohini, Paschim Vihar, Punjabi Bagh, Raja Garden, Saraswati Vihar, Uttam Nagar and Tilak Nagar. The upper middle income group occupy the colonies in this segment.

This zone has more important economic activities, which are ranging from manufacturing of small scale goods to larger scale goods. In some parts, small

scale industries are very common and are manufacturing packaging materials, printing, etc. and in some parts large scale industries are confined and are manufacturing various kinds of goods, like electronic goods, and so on. Apart from the above, medium scale industries are also available in this areas, such as, paints, chemicals and dyeing. Besides these industrial activities, this area has number of retail shops. In these industries and the retail shops, larger numbers of homeless are working as wage labours.

The homeless persons available in this zone are scattered. The maximum number that could be found in one particular location was not more than 80. The main areas where homeless people are found are Karol Bagh, Trinagar, Dev Nagar, Zakhira Bridge, Daya Basti Ram Nagar, Hari Ghanta Ghar, Mayapuri Chowk, Raja Garden Chowk, Ramesh Nagar, Lawrence Road, Inderpuri and Anand Parbat. These areas are having larger number of retail shops, and few, industries too.

#### **3.3.6. The North Zone**

This zone is located in the Northern part of the city, and the river Yamuna, which flows across the city become a boarder in the Northern side. This zone has few nodes, such as Model town, Mukherji Nagar, Ashok Vihar and Punjabi Bagh and is covered by upper and middle class residents.

This zone also has larger potential for economic activities like other zones. In this zone, commercial activities are predominant especially vegetable market. It has been observed from the literature that Asia's biggest market for vegetables and fruits is located at Azadpur in this zone. It gives more job avenues to the job

seekers. As a result, larger number of homeless person gets a chance to work as wage labour in this area.

### **3.3.7 The East Zone**

This zone is located in the Eastern part of the Delhi city. This area confined across the river Yamuna, and is referred as Trans-Yamuna. This area started to develop very recently since this area is lying across the Yamuna river, which divide the city into two parts. Moreover, since the industrial sites, commercial locations, the major transport corridors, administrative offices, all infrastructure facilities, are confined on the other side of the Yamuna river where rest of the zones are confined. This zone is in the process of development and the progress of development is also very slow compare to the other zones. It has been observed that the other zones have higher density of population, and the administration found in this zone is almost empty, and then started to give importance to this zone to ease the tension in the main area. As a result, this zone is gradually getting importance and some economic activities are also started.

It has been observed that this zone is more or less filled with residents of all economic categories (including Economic Weaker Section, Low Income Group, Middle Income Group, High Income Group), slums, squatters, etc, This zone has few industries too and are giving wage labour activities to some.

It has been observed that the available number of homeless persons in this zone is very less compared to the other zones since this zone is confined with economically very poor people and the intensity of economic activities are also

very less. Therefore, availability of jobs to this homeless segment is also very less, which lead to less concentration of homeless persons in this zone. The zone-wise concentration of homeless persons is presented in Table 3.4. The table illustrates that the homeless persons are concentrated more in the walled city area, i.e., 29.55 per cent of the total recorded homeless persons, and the other zones almost evenly distributed.

### **3.4 HOMELESS PERSONS AND THEIR PROBLEMS**

Homeless people are subjected to a hostile legal and policy regime-laws which illegalise their livelihood/existence. They are beaten/picked up by the police for sleeping on the streets on an 'apprehension' that they may be "criminals". Prevailing notions of the homeless being "criminals, "destitute" and "a burden on society" but the very fact that almost 60 per cent of the respondents earn, save, have linkage with their families and send money back to their homes, which show that the homeless lead this kind of life out of sheer economic necessity.

Homelessness, especially in Delhi, has been the least studied aspect of the urban system. Consequently, there is a lack of any substantial information regarding their problems and there has been very less development work for them.

**Table No.3.4 Zone wise Concentration of Homeless Persons in the Study area**

Sl. No.	Zones and Characteristics	Main Concentration of Homeless in various sites	No of Homeless
1	<b>Walled city</b> Mixture of residential, commercial and industry. The whole area has been labeled a 'slum'. The railway and bus station are located here.	-Khoya Mandi -S. P. Mukherji Road -Church Mission Road -Kharia Bridge -Meena Bazaar -Netaji Subhash Marg Park Asaf Ali Road	15,595
2	<b>Old City Zone</b> Mixture of residential and commercial. Densely populated. Rents are high	-ISBT Bridge -Yamuna Bazaar - Mori Gate -Kashmiri Gate -Rani Jhansi Road -Paharganj -Sadar Bazaar	4,943
3	<b>Central Zone</b> This zone contains parliament and many associated government buildings and residential areas. There are a few market areas but no industries.	-Connaught Place - Mandir Marg - New Delhi Railway Station - Shankar Market - Bangla Sahib - Gole Market - Minto Road - Hanuman Mandir	5,388
4	<b>South Zone</b> Upper class residential area/service sector. Okhla main industrial zone with a high concentration of slums.	- Nizamuddin - Jawaharlal Nehru Stadium - Bhogal - Ashram Chowk - Nehru Place - Kalkaji - Okhla	5,616
5	<b>West Zone</b> This area includes upper/middle class residential areas. It is a mixture of the old town and new colonies. This zone also has economic activities ranging from retail trade to manufacturing. Homeless scattered	- Karol Bagh - Trinagar - Dev Nagar - Zakhira Bridge - Daya Basti - Hari Nagar - Mayapuri Chowk - Raja Garden Chowk - Lawrence Road - Inderpuri - Anand Parbat	7,196
6	<b>North Zone</b> Predominantly upper/middle class residential. Contains Civil Lines area where the senior officials of Delhi Government reside.	- Roshanara park - Ghanta Ghar - Shakti Nagar Roundabout - Azadpur Market - Kamla Nagar	8,391
7	<b>East Zone</b> New colonies have developed in the southeast but there are many slums and unauthorized colonies in the northeast.	- G.T. Road Flyover - Kabul Nagar - Shahdara - Sant Nagar - Yamuna Pushta - Vikas Marg - Yamuna Bridge	5,636
<b>Total</b>			<b>52,765</b>

Source: Ashray Abhiyan Adhikar (AAA), 2001.



The inhuman conditions in which these people live is something that cannot be ignored. The problem they face can be stated as:

- Lack of identity in the city, condition of extreme deprivation and neglect.
- Climatic hardships.
- Detrimental effects of the traffic, air and noise.
- Health and Hygiene.
- Social instability and immorality due to lack of family controls.
- Harassments and trouble from Authorities, society and fellow dwellers.
- In human living conditions especially for women and children.
- Lack of adequate basic services like water supply, toilet facilities, etc.

"To begin with, homelessness itself is perceived in India to be a crime. Wandering persons (Vagrants), wandering lunatics, 'illegal' squatters, pavement dwellers, are all 'guilty' of violating several panel statutes. A large numbers of the homeless are routinely rounded up by the police" <sup>(79)</sup>.

Criminalizing the homeless persons is a serious problem, wandering people of a wide variety can be defined as beggars and powers are given to the police to deal with such persons. Squatting on the pavement is nuisance under the Municipal laws. Creation of nuisance can be penalized. Same is the approach of the law of trespass. Given the non-availability of space in urban centres every unauthorized dwelling would amount to trespass and be punishable as such. Housing, therefore, has law and order dimensions and there is a crying need for a human rights approach to it. <sup>(67)</sup>

Amongst the myriad problems encountered by the homeless, the most brutal is regular police beatings. No payment is made by the homeless for

staying on the Delhi's pavement, but police harassment and brutality is the main problem faced by the homeless of Delhi. They are arrested at many time for being 'illegal vagrants' under the Bombay Vagrancy Act, 1959, which is applicable in Delhi too. This is compounded by the fact that a majority of them do not have any proof of their residence of Delhi and face daily beatings from police so much that police brutality ranks highest amongst the problems faced by the homeless, and it seems as if this is the only language that the police understands to speak with the homeless.

They expect the police lathis (cane-stick) to fall on their back at any moment and to be chased out from the pavements. This also prevents them from keeping the environment clean around them. Even if they are removed they slowly come back to their original place. This cycle keeps repeating over every now and then. Sometimes they also had to stand in for some crime committed by some one else, the police just uses them to clear their records and to complete their monthly quota of arrests, as a crime solving measure. The homeless then languish for long periods in the jails, because they are too poor, assetless and without legal access or literacy, to secure bail or legal redressal.

The homeless have no ration card or voting rights in the city, which is why they are in such a condition of extreme deprivation, and neglect. The gap between the society and the homeless persons has increased manifold. One knows that lack of social interaction is what generates fear, inhibitions, prejudices, hatred and contempt. The homeless are the worst victims of this process of mariginalization (pushed out from rural economy to urban economy) leading to social apartheid.

It has been observed that the homeless persons fight among themselves, and even sometimes they lose their own belongings, occasionally theft also occurred, and this particular community becomes a victim of it.

Often, the local goondas around also cause them troubles and harass the women.

## **(ii) Social Aspects**

Socialization is an important aspect in human beings' life. But unfortunately, this particular group (homeless persons) does not have social life at all. This group is always longing for thriving but never comes out of the lowest ebb of the society due to various factors. Socializing with others is a dream in the life of the homeless persons since they live in such a condition, as no one considers them even as human beings. In this situation their social life is in precarious conditions. These homeless persons are facing several kinds of social problems in the study area. Some of the most important problems being faced by them are presented as follows:

(1) Women and children are the most vulnerable sections of the entire homeless group. Prostitution, the most dangerous evil, which is predominant on the pavements. Everywhere women are respected and are considered as queens of houses, but in this group they face a lot of hardships and are treated in such a worse manner one cannot even imagine in one's life. They get forced into prostitution to keep their children alive. Most of them are open to sexual abuse, which is very common on the pavements.

(2) Children are used by antisocial elements, and are forced into steps in committing immoral activities in the society without proper education and

upbringing. Absence of birth certificates and ration cards curtail their access to any of the facilities like basic services, health and education, and in the very early stage they are forced to earn their livelihood, which is adding income to the family. Over the years, when the children grow up, the ugly environment around them lead to turn them into criminals, hooligans, gundas, etc. due to several compelling forces around them. The artificial creation of social apathy between various segments of the society spell the doom of these unfortunate children.

(3) Male population among the homeless also suffers very much in the study area. They do not have social life at all. Most of them married migrant homeless males (85 per cent) are living as forced bachelor, and they do not have family life at all. They are longing for family life, and their minds are almost always towards their kits and kin's who are living in the hometowns. It has been observed that these situations lead the community often go to the redlight areas to satisfy themselves.

(4) Drug addictions, especially smack is very common on the streets of Delhi. To escape from the harshness of life on streets, hordes and hordes of people are found huddled together chasing smack at various street corners. It is also noted that some of the homeless were suffering from depression and other forms of mental illness.

(5) Crime, diseases, malnutrition, illiteracy, etc., show higher evidence in such surroundings.

### **(iii) Health and Hygiene**

Health and Hygiene are one of the most important parameters, which are highly essential for the survival of the human being. It is unfortunate to state that

this particular group of the society never expressed what is health and hygiene because they live in such an unhygienic and inhuman condition in almost all the days in a year in general and the rainy season in particular.

The locations where the homeless live are very unhygienic in conditions. Often the wastes supposed to directly go into the drains are blocked, which results into unhealthy atmosphere, and even develop stinging smell. Garbage dumps are usually within the locality. There is filth all round. The toilets, if available, are very badly maintained, and are usually unusable. They use the space around the toilet. All waste water flows on through the pavement. The unhygienic conditions, and accumulation of all other types of problems causing environmental degradation and degradation of their health.

It has been observed that many homeless are having various kinds of serious health problems including skin disease, respiratory illness and viral infection.

#### (iv) **Detrimental Effects of Traffic**

a) **Noise pollutions** – The noise level on the roads throughout the night is very high (90db). The continuous flow of traffic on highways goes on throughout the night, especially on the main linkage roads. The harmfulness arising due to the noise pollution are:-

- Subjective effects– It varies from person to person in terms of annoyance, disturbance, bother, etc.
- Behavioral effects – The mental efficiency in performing of general task is impaired by noise.

- **Physiological effects** – At extreme high level for long periods can produce deafness. Noise level of 90 dB (A) is noted as extremely noisy. The Delhi situation is much above that especially the main interstate high ways.

**(b) Air Pollution-** Carbon monoxide, oxides of Nitrogen and lead components are substances which are of concern from the point of view of the street dwellers and their health. All these do not have immediate effect but the effects of long term exposure and the combined effect of all of them is dangerous. The level of air pollution in Delhi is the one of the highest in all of Asia.

**(c) Safety:** - The quality of the roads, and the speeds of the vehicles, the footpaths become some of the most dangerous places where the homeless persons survive. It has been observed that vehicles overpower this segment in several occasions while they sleep on the pavements. Thus there is no safety of this particular group.

**(iv) Climatic Hardships:**

Delhi city is having very odd climatic conditions. During the summer season, it has sunny summer and the intensity of summer goes upto 48<sup>0</sup>C. During the monsoon season, it is blessed by heavy rainfall. During winter season, it is affected by foggy winter, the weather conditions is so worst, and it touches 3<sup>0</sup>C.<sup>(75)</sup> These climatic variations drastically affect the homeless persons who live on pavements and other open places.

During the foggy winter season, the people do freeze to death, especially the sick and the old.

During the monsoon season, it is a worst part of life, and it is very difficult to survive. It is amazing to note that majority of homeless remain on same place where they live even in rainy days, and at the maximum they cover themselves with a plastic sheet.

Thus, the homeless lead a very difficult life, sleeping in an unhygienic places in all kinds of weather, living under constant harassment, harse work conditions and being separated from family and friends.

**(v) Lack of identity in the city**

The Ration card is the means of identity in the Indian society, which enables to get citizenship rights and access to government food supply and other facilities. Since the homeless don't have any permanent residential addresses, due to high mobility in occupation and sleeping places, these people do not have ration cards at all. Lack of such identity, thus, unable them to obtain any kind of facilities or avail any concession offered to the urban poor. Police harassment and brutality too are the common phenomenon among the homeless due to lack of identify. These people are arrested at any time for being "illegal vagrants" under the Bombay Vagrancy Act, 1959. This is because they do not have any proof of their residence in Delhi. These people do not have even franchise to elect their own leaders in the democratic form of Government since they do not have any type of identity at all.

### **3.5 ECONOMIC CONDITIONS**

The overall economic condition of these homeless persons is quite poor, as a result they try to first fulfill their day-to-day needs for survival. The majority of

them are earning very low wages, even lower than the minimum wages (Rs. 96/- per day in Delhi city) in which any type of rental housing is beyond their reach. Thus, homelessness becomes not the economical option, but the forced option. Their low income levels do not allow them to have any type of at least a rudimentary shelter for them, by their earnings they can only have food since their saving is to send back to their for their home for the survival of their family members in the native place. This lead to the homeless persons to stay in an awkward position always, without having shelter in any form in any where and live in such a distress conditions.

Homeless persons are employed in the 'informal sector' either as self-employed, or as manual labourers, or in the unorganized services sector. It has been observed that these people, (the homeless persons) are mostly engaged in self-supporting activities, and are sending money back to their hometowns. This group of people cannot be moved out of the city as they form a major part of the urban system, and also making important contributions to the systems i.e., they work in para-transport, transporting goods from one place to other, garbage handling, employed in small trading establishments like hotels, restaurants, other manufacturing units, as labour, in thela pulling, in loading and unloading, as unskilled labours in different activities, as small vendors, as domestic servants, etc. Thus, making a vital contribution to the informal sector of the city.

### **3.6 PROXIMITY TO WORK PLACE**

The casual workers are required to reach the destination where the work is available too early or they won't get a chance since availability of work is very



less but the supply of labour is very high. Therefore, it is very necessary to reach the labour market early in the morning, and hence do not have to waste time in commuting. Transportation activities do not start very early in the morning (usually around 10 A.M.) for handcart puller or handcart pushers and loaders working in the market areas, but they often continue upto late night, which makes it more convenient to sleep in the market itself and the transportation activities usually fetch more income too. Since the nature of the work requires intense physical strength, the transportation workers are usually exhausted after a day's work, which lead them to sleep in the same location (or near by) enables them to avoid the additional tiredness in commuting. Further more, in the market, they are able to sleep on their handcarts or in the verandahs of the buildings.

The position of the cycle rickshaw driver is mixed. Those who keep their rickshaw at night with them more or less sleep on the rickshaw itself and have more flexibility in their choice of location, providing they can park their rickshaws safely. But for the drivers having to hire their rickshaws every morning from their owner's garage, staying within the proximity to the garage is very important. Even for those homeless workers whose occupation and modes of recruitment do not require them to stay near the source of employment opportunities, proximity between sleeping place and work place is highly sought in order to reduce-or eliminate the cost of commuting. The choice of sleeping place is the location nearer to their work place to homeless people. Close proximity to the place of work or source of employment opportunities is one of the reasons for staying initially on the pavement, and more frequently to explain their choice of a specific place to sleep. It has been observed that more than 80 per cent of the homeless

workers walk to their place of work, and the average time of commuting is about 10-15 minutes each way.

In fact, the working force who belong to the same group (engage same type of occupation) have their own socialization. In the wholesale market, many handcart pullers stay together in a group at night, sleeping on their carts or in the verandas of the market, and cooking food collectively on pavements. The same trend is observed among the homeless working as cycle rickshaw drivers, handcart pullers or constructions workers in the study area.

### **3.7 HOMELESSNESS IS AN ENDLESS STRUGGLE FOR SURVIVAL IN DELHI CITY**

Homeless are mostly employed on temporary basis, working on day – to – day basis. They don't know what type of work they get the next day, or will get or not. They try to sleep close to workplace, which enables them to be first in the labour market to get work and also eliminate the cost of commuting. Thus, their most important problem of getting source of income, no matter how difficult it is to live on streets. Their daily savings are so less, that is why they are unable to afford any type of rudimentary shelter on rental basics and remain homeless. These people have no permanent residential address, as a result, they have no ration card or voting right in the city, surviving on their own. They are in the condition of extreme deprivation and neglect. Many have serious health problems including skin diseases; respiratory illness and viral infection but often do not go to hospital because of poverty. Lack of adequate basic services like water supply, toilet facilities is also responsible for several health problems. There are 50 per cent who use ' pay and use ' toilets while 50 per cent use open spaces for

bathing, defecation and washing of clothes. The homeless live in unhygienic locations. Most of them stay on the same place even in rainy and winter seasons. Some of such sick and old people do freeze to death especially in winter. There are fifty per cent of the homeless found to be living since 6-10 years either on footpath or in night shelters. They have no option for going back to their place of origin. If they continue staying on footpath, then in near future, there will be increase in families, second and third generation may born on the footpath who will lack motivation in education and there will be increase in crime rate.

Unless poverty in rural areas is addressed, the number of migrants coming to Delhi and sleeping on Delhi's street will continue to increase. Homeless group is the most vulnerable group in the city. Homelessness is generally ignored, passed off as an extension of slums and thus not recognized as a phenomenon in itself. It makes difficult to design and implement innovative interventions.

### **3.8 NIGHT SHELTERS IN DELHI CITY**

Night shelter or Ran Basera is a place where the unfortunate downtrodden, helpless, poverty stricken victims of the society take shelter at night. They are mostly engaged in petty jobs like casual labourers, rickshaw puller, rag pickers, hawkers, cart drivers, labourers employed in small establishments and even the educated, technically qualified persons who are in search of job, also at times stay in Night Shelters.

A section of them often indulges in antisocial activities and create violence in the civic life of a metropolis. But the life of the inmates of the night shelter has its own dynamism. They may be the victims of any crises, rural or urban, social

psychological or emotional but in the night shelter they form a different community. Strange assortments of social groupings are found in the night shelter where the people from different parts mingle together. A new kind of social solidarity grows in their lives.

In Delhi, the concept of Night Shelter was first introduced by Shri Rup Narain, a voluntary social worker of Delhi, as early as in 1950. While returning home, he was pained by the pathetic sight of many neglected and unfortunate people shivering in the cold weather, and dead at night. He resolved to move the Authorities to do something for this segment of the society.

In December 1954, first survey of homeless was conducted under the Praja Socialist Party, which was initiated by Rup Narain. Six thousand persons were enumerated according to the survey and a detailed report was sent to the Delhi Municipal Corporations and the Delhi Administration with an appeal to initiate action for the relief of the homeless.

In 1956, Shri R u p Narain set up an organization of homeless and named it Delhi Footpath Sleepers Sangh, and sketched out a plan for construction of night shelters for homeless. Community halls were to be opened at convenient and crowded points of the walled city. These could be used during the night time for a nominal fee of one anna, which is equal to 1/16 of a rupee or so by way of serving charges. Later, Shri Roop Narain approached the local unit of the Bharat Sewak Samaj a non-political organization dedicated to the cause of poor.

In December 1956, the first night shelter was opened at Ajmeri Gate in Delhi city Sewak Samaj, in a building donated by the Delhi improvement trust. It was organized based on the suggestions made by Shri R u p Narain. This

building could accommodate only 25 persons. It was an experimental project. The initial hesitation on the part of the homeless could be overcome after a good deal of persuasion. Unfortunately, however, this was a short-lived affair as the building was demolished and the night shelter was closed.

In December 1957, the second Night Shelter was opened at Kashmiri gate in Delhi city a building, which was used by the Bharat Sewak Samaj as its office. Encouraged by favourable response, night shelters were opened at Jamuna Bazaar, Asaf Ali Road, Chandni Chowk and Paharganj of Delhi city. A chain of shelters opened by Bharat Sewak Samaj, which had an impact on the Authorities and through the resolution adopted in 1958, the Delhi Municipal Committee provided for the construction of three night shelters. The first night shelter was started by the Municipal Corporation of Delhi in 1961 in the Darabar Hall Verandah and in various rooms of the Town Hall building. Later the Central Social Welfare Board, Government of India initiated a scheme of grant-in-aid to finance the night shelter run by the Bharat Sewak Samaj.

The matter regarding construction of night shelters in Delhi was raised in the improvement committee of the Municipal Corporations of Delhi in its meeting held on September 11, 1958. The agenda for the meeting included the following resolution, which was proposed by Janardhan Gupta, the then member of the Municipal Corporation. 'A great number of people in Delhi pass their lives on open road, bearing all the inclemency's of weather. The earth is their bedding and skies the ceiling of their lofty chamber. It is the responsibility of the corporation to protect the lives of such homeless people and provide them all necessary amenities. This committee therefore, resolves that the corporation

may construct special type of shelters on open place, which may serve as resting place at night, so that they may be protected from natural calamities'. This led to setting up of night shelters on permanent as well as temporary basis.<sup>(41)</sup>

In 1961-62 a severe cold wave swept the city, extreme condition of climate caused suffering and deaths on the pavements. This became the immediate cause to start night shelters in the city. In 1962, there were 14 night shelter started in the city. Of which, Bharat Sewak Samaj run 8, and the Municipal Corporation of Delhi run the other 6.

In 1963, the Municipal Corporation of Delhi had conducted the survey to find the actual number of homeless available in the city and found that their were 12,000 homeless in the city. Later the Municipal Corporation of Delhi has implemented the Slum Clearance and Improvement Scheme. In this scheme there were 12 night shelters started in the city.

The Delhi Administration had given financial assistance in the shape of Rs. 50,000 to the Municipal Corporation of Delhi in March, 1964 under the Head P-loans and advances of the Central Government, A-3 loans to local funds, private parties, etc. subsequently, the Government has given loan to the Municipal Corporation of Delhi for construction of permanent night shelter in Delhi under the Slum Clearance and Improvement Scheme (Delhi Administration letter No. F-12 (43/63-LSG dated March 26, 1964 written to the commissioner, Municipal Corporation of Delhi). as a results, in 1963-64 further more, ten-night shelters were started.

In 1973, there were 21 night shelters, including seasonal night shelters (from 16 November to 15 March) run by the Municipal Corporation of Delhi and

other Social Organizations. These together could accommodate 5,225 person per day. All these night shelters had electric lights, fans, water taps and toilets. Of which two had television sets too. People using these night shelters were provided with jute mats and blankets. The Government also started medical facilities for this segment through a mobile dispensary.

In 1974, the Delhi Municipal Corporation transferred the night shelters to the Delhi Development Authority along with the slums clearance scheme. During the year 1975-76, the Slum Department (Delhi Development Authority) run six permanent night shelters around the year and during the winter seasons, i.e. from 16<sup>th</sup> November to 15 March, 10 additional night shelters were opened at various places in Delhi Territory. Besides these the private social organizations run 5 night shelters in the city.

In 1977, Slum wing had 15 permanent and 6 temporary night shelters in the city at various locations and 6000 people were accommodated in these night shelters. They have kept a budget provision of about 4.93 lakhs rupees (including Rs. 1.22 lakhs on establishments). The following facilities/assistances were provided to the homeless persons on free of charges in the night shelters. They are:

1. Woolen blankets (1 or 2) to each inmate
2. Jute matting for flooring
3. Illumination
4. Drinking water
5. Sanitation (Urinals, latrine blocks and bathroom in permanent night shelter).
6. Medical help.
7. Fire wood



8. Fire fighting arrangement
9. Television sets.
10. Exhaust fan
11. Ceiling fans
12. Temporary light arrangements.

In 1990, there were 16 night shelters available under Slum Department of the Delhi Development Authority. In 1997, the Slum and Jhuggi Jhopri Department of Municipal Corporation of Delhi had 19 night shelters, serving of 4537 homeless persons daily. In the year 2002, there were only 13 night shelters and are under operation in the city serving of 2937 homeless persons. Initially Footpath Dwellers Rehabilitation Scheme was taken into account as centrally sponsored pavement dwellers scheme having the components of construction of community night shelters with water supply and sanitary facilities. Later, the Delhi Government was of the view that the centrally sponsored scheme of rehabilitation of footpath dwellers is unrealistic <sup>(57.)</sup>. Keeping this view, the scheme of night shelters in Delhi was not run within the parameters of centrally sponsored "Footpath Dwellers Rehabilitation scheme", but in Delhi, the existing scheme of night shelter has been adopted in its original pattern along with full plan support from the plan funds of Delhi Government. Slum and Jhuggi Jhompri Department, Municipal Corporation of Delhi is implementing these night shelters in various parts of the Delhi city. Fig. 3.2 shows the conditions of the night shelter in Delhi city.

During the Eight Five Year Plan period (1992-97 & Annual Plan 1992-93) a grant of Rs. 23.7 million was released for construction and management of Night Shelters. Of which, Rs. 23.4 million was utilized for the said purpose.



During the Ninth Plan (1997-2002) period, the outlay of funds for construction, management and maintenances of night shelter was Rs. 250 lakhs, but the actual expenditure upto the year 2000, it was Rs. 254.19 lakhs, which was already exceeded the sanctioned amount. Further, it was found from the literature that the Government spent 88.70 lakh in 2000-01 and Rs.130 lakhs in 2001-02 for the said purpose. In the Tenth Five Year Plan (2002-2007) period, the proposed outlay is 500.00 lakhs.<sup>(90)</sup>

Till January 2000, there were 19 night shelters functioning at various locations in Delhi, catering 4,537 persons daily, after charging Rs. 6 per night from each inmate. This fees include the payment made to the agency deployed for maintenance of Jansuvidha complexes containing community toilets & baths, which is an in built facility in most of the night shelters. The availability of night shelter in the year 2000, the location, and the capacities, the area, types of shelter, etc. are presented in Table No. 3.5. and locations of night shelters are shown in Figure 3.3. The plans of few night shelters is given in Appendix C.

The night shelters have been provided with basic amenities like toilets and drinking water facilities required for living. Night shelters are opened from 7.00 PM to 7 AM everyday. The night shelter administration provides blankets, jute mattresses to the inmates. All night shelters available in the city are equipped with coloured television sets, at present.



***Fig. No.3.2 Night Shelters in Delhi***

**Table No. 3.5 Night Shelters And Their Capacity in Delhi**

Sl No.	Name of Night shelter	Zone locations	Location characteristic	Capacity (person@1.5 sq./m person)	Daily average inmates	Area in sq. mt. s.	Toilet facility	Type	Remarks
1	Delhi Gate	Walled City Zone	Delhi Bazaar	80	40	112.38	T	Permanent	Pucca RCC
2	Turkman Gate	Walled City Zone	Asaf Ali Road	120	70	521.83	T	Temporary	Tin-Shed (Roof & wall)
3	Jama Masjid I	Walled City Zone	Meena Bazaar	530	25	794.88	T	Temporary	Wooden Hard board)
4	Jama Masjid II	Walled City Zone	Meena Bazaar	700	350	1246.39	T	Permanent	Pucca RCC
5	Lohari Gate	Walled City Zone	Qutab Road	250	125	384.40	T	Permanent	Pucca RCC
6	Old Delhi Railway Station	Station Walled City Zone.	West end Railway	514	600	770.47	T	Semi Permanent	Asbestos shat roof.
7	S. P. Mukherjee Market	Old City Zone	Jhandeval Paharganj	60	25	73.73	T	Permanent	Pucca RCC
8	Andha Mughal	Old City Zone	Azad Market	112	50	168.5	T	Semi Permanent	Sheet roof.
9	Boulevard Road	Old City Zone	Opp. St. Stephens hospital	87	25	131.09	NT	Temporary	Tin-Shed (Roof & wall)
10	Gole Market	Central Zone	Kali Bari Marg	324	100	131.09	T	Permanent	Pucca RCC
11	Nizamuddin	South Zone	Dargh	120	40	586.36	NT	Permanent	Pucca RCC
12	Nehru Place	South Zone	Kalkaji Temple	100	10	147	T	Permanent	Pucca RCC
13	Shahadara	East Zone	Kabul Nagar	25	25	70.03	T	Permanent	Pucca RCC
14	Katra Maula Box	North Zone	Roshanhas Road	250	62	140.42	T	Permanent	Pucca RCC
15	Azadpur Sabzi mandi	North Zone	S. P. Thala Bus stand	100	53	316.80	T	Permanent	Pucca RCC
16	Karol Bagh	West Zone	Ajmal Khan Road	60	40	104.27	NT	Temporary	Tin-Shed (Roof & wall)
17	Shahzada Bagh	West Zone	Industrial Area	200	25	325.65	NT	Permanent	Pucca RCC
18	Raja Garden	West Zone	Ring Road	100	60	200	T	Semi Permanent	Asbestos shat roof.
19	Mangolpuri	West Zone	J.J. Colony	100	35	300	T	Semi Permanent	Asbestos shat roof.

T= Toilet Facility, NT = No Toilet Facility Source: Slum and JJ Department, Municipal Corporation of Delhi, 2001

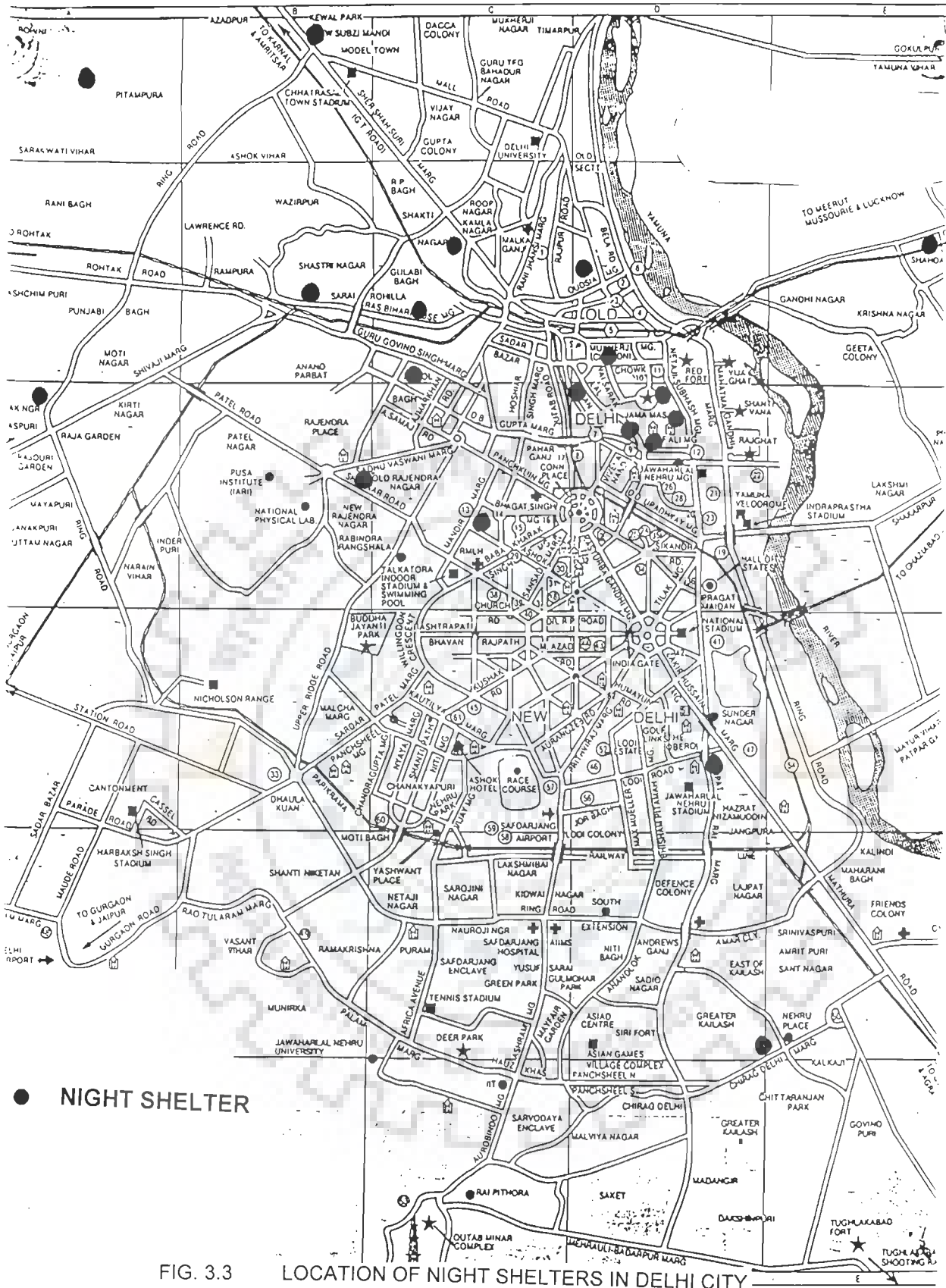


FIG. 3.3 LOCATION OF NIGHT SHELTERS IN DELHI CITY



At present, the night shelters are operated throughout the year. The Municipal Corporation of Delhi manages all the night shelters available in the city by deploying security staff, inspectors & supervisory staff for providing better services. Desert coolers are also provided during the summer season in addition to ceiling fans in sufficient quantity. Inspection of the night shelters are regularly being carried out by the senior officers for smooth functioning.

It gives pain to note that by April 2001, only thirteen night shelters are functioning out of the nineteen night shelters working in the city. Six night shelters are closed due to the following reason:

The first night shelter at Old Delhi Railway Station was closed because it was converted into a detention centre. The second and third night shelter at Boulwad Road and Andha Mughal have been closed, as the land was required for the construction of metro railway in Delhi by the Delhi Metro Railway Corporation. The fourth night shelter at Gole market is closed because the land owing agency required the land. The fifth night shelter at Karol Bagh is demolished for provision of a musical fountain on its place and the sixth night shelter at Jama Masjid 1 was closed due to its dangerous structure condition.

The thirteen night shelters, which are working in different parts of Delhi, are: in Walled City, only four night shelter are remained, and are located at Delhi gate, Trukman gate, Jama Masjid II, and Lahori gate. In the Old City, only one night shelter at S. P. Mukherji market is currently working. There are two night shelters functioning at Nizamuddin and at Nehru place in the South Zone. But neither of these night shelters is able to cater to the needs of the people. Many people do not want to sleep in these night shelters as they find them dirty.

The night shelter at Nehru place is built on the top of a Sulabh Suchalaya (Public toilet). During the monsoon season, the area around the night shelter and the approachable area are covered with full of filth, which usually float in the accumulated water. In additions to the above, the sanitary toilet pipe that passes besides the night shelters is cracked in many places, thus spreading a foul smell.

There are three night shelters at Raja Garden Chowk, Shahzad Bagh and Mangol Puri, and are confined in the western zone and are working at present. Mangol Puri night shelter is completed in the year 1997. A huge hall almost with all facilities, like toilets, cooler, fans but attract very less homeless, since it is located far away from the main corridors, and where the number of homeless are concentrated less.

There are two night shelters available at Katra Maula Box, and Azadpur market in the Northern Zone. They have been located in the main area where the homeless person concentrate much. However, they satisfy the requirement of about 10-15 per cent of the homeless. In the Eastern Zone, only one night shelter is working, which is one of the oldest night shelters known as Shadara, and is situated at Kabul Nagar near to the slum and squatter settlements. The condition of this night shelter is pathetic.

The survey of night shelters reveals that their occupancy is almost half of their capacity during the summer seasons, whereas during the winter and rainy seasons, it is increased from 80 to 90 per cent of their capacity. The survey also shows that the occupancy is very less because these night shelters are poorly maintained, filled with dirt and dust, have stinging smell, and in very unhygienic condition. The people don't like this environment and facilities and also feel

insecure due to frequent thefts. The facilities are not equally provided in all the night shelters e.g. television sets, water coolers, air coolers, where as charges are the same. There are no space standards followed, in night shelters, and the people are asked to sleep very close to each other, where transfer of communicable diseases is highly possible. In few night shelters even the toilet facility is not available. Even if toilet facilities are available, no water is available. The respondents have complained of inadequate number of toilets in the night shelters. Some of them also described that the toilets are not properly cleaned, therefore, they generally prefer to go to nearby open spaces.

The maintenance of the existing structure and facilities is very poor and the available blankets are not cleaned regularly. The mats on which people sleep are torn and dirty. A few number of respondents said that the blankets provided to them are quite old and have become quite thin. The numbers of available mats are insufficient and are unable to safeguard the interest of the people during the foggy winter season.

Night shelters of temporary structure are in very bad shape. There is continuous leakage in rainy season, which is the period the homeless need the shelter most. No proper maintenance of the existing structure and facilities, thus reducing the occupancy level. It is seen that night shelter are unable to provide optimum level of quality of life in terms of physical and social environment.

### **3.9 COVERAGE AND CONSTRAINTS FOR DEVELOPMENT**

#### **3.9.1 Coverage**

As per the census 2001, the Delhi city has about 55,000 homeless persons of which, a major chunk live alone. If the available night shelters work

with full efficiency, then they cater 2,205 persons per day i.e., 10 per cent of the total homeless. Looking at the present working conditions of the available night shelters, it visualized that only 4 per cent of the total homeless persons are using these shelters.

### **3.9.2 Constraints**

The following constraints are observed in the city related to the night shelters. They are:

- Land scarcity is the predominant constraint, which restrict the increase of night shelter. The locations of homeless is such that they are mostly concentrated where employment opportunities are available. In such places, were there is no lands available and where such property uses is unthinkable.
- Resistance from the neighbourhood population in provision of night shelter facilities.
- Cost of maintenance and operation is high in relation to recoveries from inmates.
- Law and order problems.
- Regular police patrolling during night.

## **3.10 ORGANIZATIONAL CHARACTERISTICS**

### **3.10.1 Administration**

The Slum and Jhuggi Jhopri Department, Municipal Corporation of Delhi, has the night shelter program under its wing. A separate section under a Deputy Director of the slum department is in-charge of the administration of the night



shelter program. An inspector is assigned to look after each night shelter for its overall management. Two persons have been assigned to take care of individual night shelter for its management, collection of fees, etc. The figure No.3.4 shows the organized setup of the night shelters.

### **3.10.2 Security**

The Municipal Corporation of Delhi has made arrangement of 50 security guards for safeguarding the interest of the night shelters.

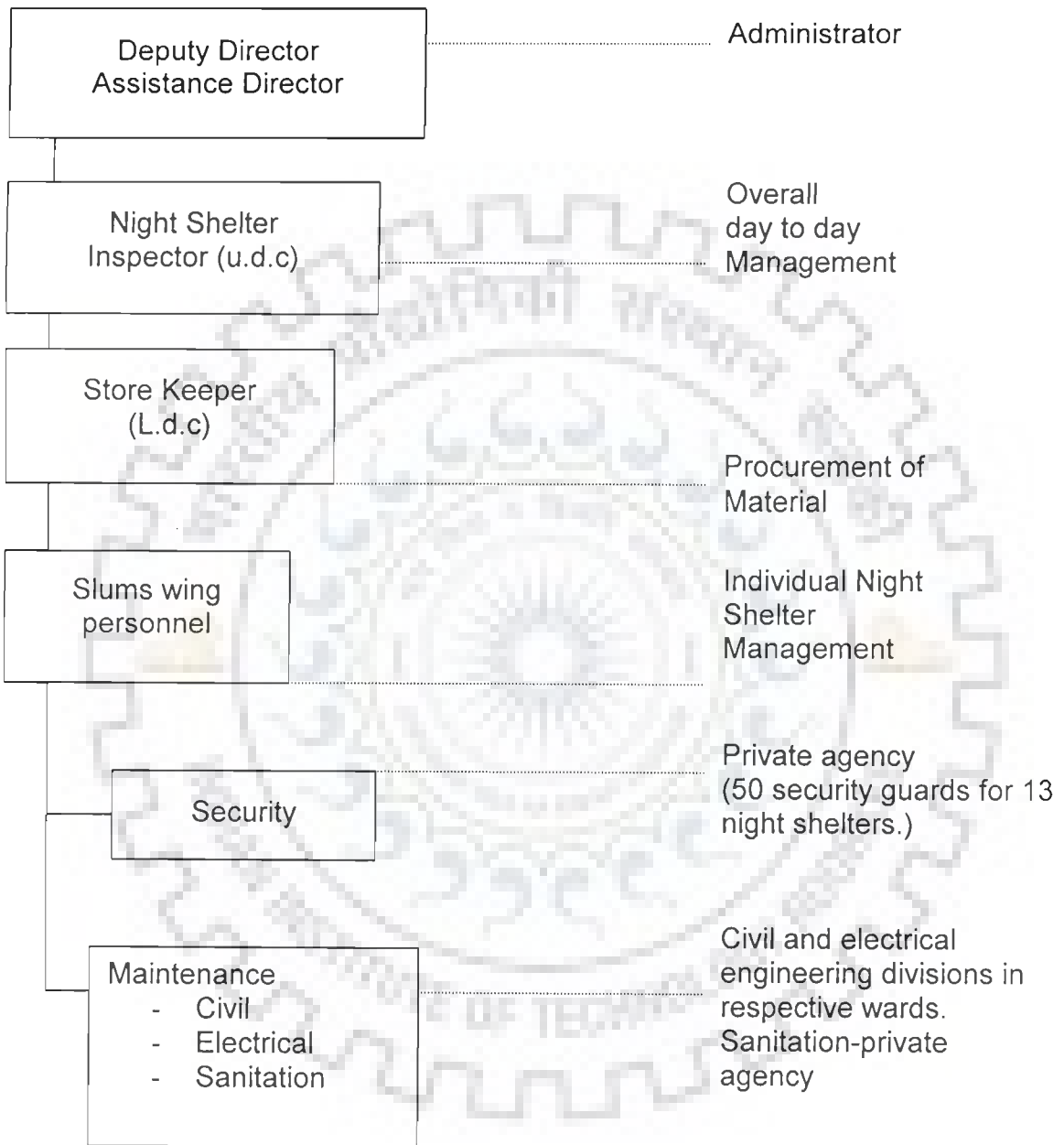
### **3.10.3 Management**

The Municipal Corporation of Delhi is managing the night shelter. These night shelters are functioning from 19hr. to 7hr. (7.00 PM to 7.00 AM), and during the daytime it is closed. As per the rules and regulations in vogue, one can stay in a night shelters 20 days continuously and having a break of staying, he can continue further. Prohibition of drinking and smoking is made compulsory in these night shelters. Persons with communicable diseases are also not allowed in these night shelters.

The Central Public Works Department, Civil and Electrical Engineering Division of respective wards in which the night shelters are located take care of the general maintenance, while daily sanitation and cleanliness of this is maintained by the private agency.

## **3.11 TYPOLOGY OF NIGHT SHELTER**

Initially there were two types of night shelters, such as, permanent and seasonal (which opened during extreme weather conditions) functioning in the study area. Since 1988, all night shelters are functioning as permanent, and are working for the whole year. It has been observed that there are three types of



**FIG. NO. 3.4 ORGANIZATION SET-UP OF NIGHT SHELTERS**

night shelters functioning depending upon their structure: They are:

- (i) Permanent – These are having pucca structure with RCC and brick – regular structures. Eleven night shelters having these types of structure
- (ii) Semi Permanent – In this type, the flooring and walls are pucca while the roofing is made of asbestos sheet. Four night shelters are constructed under this category.
- (iii) Temporary –Initially a make shift arrangement was made, but over the years these types of structure stuck on to be permanent. The floor of the shelters is just the existing surface (Earth/pavement) or at the most rammed earth. The roof and walls are made of tin sheets. In one case, even wooden hard boards were used. There are four of such types of structure available in this study area. Fig. No. 3.5 shows the different typology of structure of the night shelters in Delhi city.

### **3.12 INTERVENTION OF PRIVATE ENTREPRENEURS**

Some small private entrepreneurs, perceiving the homeless situation of so many as good business opportunity, rent out sleeping place and bedding facilities to homeless and have established quilt-rental business known as thaiyawalas. The charges for renting a quilt is Rs. 5/- per night, and cots with bedding Rs. 15/- per night. The client renting a quilt sleeps on the grounds covered with a plastic sheet. In winter, they fold the quilt into two lengthwise. One folded half is placed on the ground on which the person stretches himself and the other is used as a

cover. The bedding facility are particularly in demand in the winter when the temperature at night go down to as low as 3<sup>0</sup>C. In summer, the quilts is used as a mattress. In places controlled by quilt renting business, the homeless are unable to sleep for free. Most of the entrepreneurs involved in this business also provide sleeping spaces to their customers, at night they encroach on some section of the pavements, in particular those covered by verandahs, as well as pedestrian over bridges, or other open grounds, on which they spread plastic ground sheets or place their cots. In the sleeping areas, which are entirely exposed, overhead plastic sheets are also arranged on rainy nights to protect sleepers.

However, the offer of a relatively protected sleeping place, and of cot for those who can afford it, is also taken up during other seasons. For example, in front of the Meena Bazaar night shelter, people instead of going to night shelter, sleep outside on cots provided by these private people and feel more comfortable even after paying Rs. 10/-, and a large number of people are seen sleeping there. The same scene is seen on the pavements, in front of Old Delhi Railway Station too. The Figure 3.6 shows that the homeless persons are using private person's quilt on payment basis in front of the night shelters.

Since the renting out of quilts and cots in public spaces is carried out without authorization, it inevitably lead to police interference, which at worst results in the eviction of both quilt owner and homeless. So in order to conduct business and minimize the risk of eviction, these private people called *thaiyawalas* pay *hafta* (a bribe paid on the weekly basis) to the police.

However, a substantial proportion of the homeless do not rent bedding facilities, rather they have their own blankets and sleep on pavement covered by



***Fig. No.3.3 Night Shelters in Delhi***





***Fig. No. 3.6 In Front of Night Shelter***

verandas or in open spaces where access is free, though not necessarily free from police harassment.

### **3.13 THE NEED FOR INTERVENTION**

The tremendous increase in land values as well as rental market forced the poorest people to become homeless and stay on footpath facing climatic hardships like rain and cold. This urged the government to intervene so that the situation does not deteriorate further.

As per the 1991 census, the total number of homeless households in the urban areas was 3 lakhs and most of them reside in the Metropolitan Cities. Majority of the homeless in the urban areas comprises footpath dwellers that are unable to secure any kind of shelter.

### **3.14 PUBLIC INTERVENTION**

To meet the minimum shelter needs of the absolutely homeless people in the urban areas, a centrally sponsored Nigh Shelter Scheme for Footpath Dwellers was initiated by the Ministry of Urban Development and Employment during the VII Five Year plan (1985-90), with the minimum level of sanitary, water supply and other facilities called Footpath Dwellers Rehabilitation Scheme.<sup>(85)</sup>

The central scheme will cover all major urban centres wherever there is concentration of footpath dwellers or homeless. The present scheme has been conceived as an immediate measure to ameliorate the living condition and shelter problem of the absolutely homeless people till such time as they can secure affordable housing from on going efforts of state housing agencies. The following are the components of the scheme:

- Construction of community night shelters with water supply and sanitary facilities.
- Pay and use toilets/baths.
- Renovations of existing structures like market places etc as night shelter.
- Temporary or mobile night shelter of adequate standards on the basis of justification provided by state governments considering the prevailing local factors.

The scheme was modified in August 1992 and named as “Footpath Dwellers Night-Shelter Scheme”. The modified scheme has the following components.

- Construction of Community Night Shelter with Community toilets and baths.
- Construction of only community pay and use toilets and baths for the homeless. The night shelter will be provided separately for men and women according to local circumstances.

### **3.14.1 Construction of Community Night Shelter with Community Toilet and Bath Facilities**

The night shelter besides providing space for sleeping also include facilities for common toilet, drinking water and lockers, etc. Wherever required, open space for parking of rickshaws, handcarts etc., is provided nearer to the shelter. The facility can be designed as part of an integrated complex having remunerative components.



Under this scheme, a project is formulated, constructed and operated by the Municipal Bodies or agencies designated by State Government or Municipal Corporations. Apart from the State or Local Agencies, the Private Agencies including Voluntary Organizations recommended or concurred in by the State Government or its Agencies also involved with the implementation and management of the scheme. The Non Government Organization's involved with the management and maintenance of night shelter constructed by Local Bodies. Land is provided by the State/Local Government or through agreement with Private Owners. Systematic surveys were undertaken in cities/ towns by the Local Municipal Bodies in connection with the said project.

Housing and Urban Development Corporation (HUDCO) is responsible for approval, financing and monitoring of the scheme under the supervision of the Ministry. Urban local bodies/ the designed staff of the agency are given prescribed government subsidy through Housing and Urban Development Corporation (HUDCO). Loan will be also available from Housing and Urban Development Corporation (HUDCO) whenever required for the said purpose. Once the project is completed, the night shelters and other facilities will be managed by Municipal Bodies or Non Government Organization's or Private Agencies recognized by the State Government.

As per this scheme, the cost of construction is limited to Rs. 5,000/- per beneficiary. Central government through Housing and Urban Development Corporation (HUDCO) provides upto Rs. 1000/- per beneficiary as subsidy and the balance Rs. 4000/- per beneficiary may be paid either through the contribution made by the Local Body from its own resources or State Budget or

to be secured from the Housing and Urban Development Corporation (HUDCO) as loan. The subsidy element alone would not be released to the Local Bodies/Public Agencies/or the recommended Private Agencies including Voluntary Organization, unless Housing and Urban Development Corporation (HUDCO) ensures that adequate funds, i.e., the balance cost has been or is being mobilized by the agency. Where the agency seeks the balance cost shall be covered or is being mobilized by the Agency.

During the Seventh Five Year Plan (1985-90) period, the total outlay in State and Central sector for the Night Shelter Scheme was Rs. 500/- million, surprisingly only Rs. 48.5 million or less than one-tenth of the amount was actually spent in this regard. As a consequence, during the Eight Five Year Plan (1992-97) period, the outlay for the scheme was reduced to little more than one-tenth of the Seventh Five Year Plan's outlay, i.e., Rs.65 million. But no Agency had done any investigation related to the reasons for keeping the money without spending.

#### **3.14.2 Construction of Pay and Use Toilet/ Baths**

Construction of independent pay and use toilets were also proposed under this scheme, where night shelters were infeasible. The Central subsidy for this scheme was limited upto Rs. 350/- per user, provided the executing agency undertakes to mobilize balance funds for constructing sanitary latrines, with adequate water and arrangements for maintenance. The loans assistance may be secured from Housing and Urban Development Corporation (HUDCO) as per the existing norms.

There are 61 schemes implemented in India by various State Governments pertaining to night shelter program, benefiting more than 40,000 footpath dwellers with the assistance of the Housing and Urban Development Corporation (HUDCO) as on 31.10.1998<sup>(45)</sup>

The analysis of the homeless persons, their concentration in different locations of the study area, their occupation, their day-to-day living, their habits, etc., give more information about the homeless persons who live in the study area. However, a detail and very close investigation is very much essential pertaining to all aspects of their lives for evolving strategies for the development of the homeless. Therefore, a very detailed investigation was attempted about the homeless of the study area and are presented in the subsequent (fourth) chapter.

## SOCIO-ECONOMIC CHARACTERISTICS OF HOMELESS PERSONS

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### 4.1 INTRODUCTION

An attempt is made to have a detailed investigation about the socio-economic characteristic features of the homeless persons in the study area, to evolve feasible shelter strategies for their development. To conduct the detailed investigation, the Investigator considered the Municipal Corporation of Delhi's administrative structure, i.e., the entire study area is divided into twelve zones. It has been found that the homeless persons are concentrated in eight zones of the total twelve zones. Of which, four zones are selected for this investigation. Further, a total of eight sites are chosen from the four zones for conducting this investigation, and are shown in Figures. 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6.

The methodology, which is followed for conducting the present investigation, is presented in Chapter 1, and Fig. 1.4 (c. ref.). The Investigator conducted the detailed investigation of the homeless persons by considering the following important variables, such as, income, age, occupation, distance from work place, type of households, marital status, religion, education, skills, abilities, size of family, place of origin, period of stay as homeless, reason for migration, occupation before migration, property ownership in native place, arrived with companion, storage of belongings, mode of food procurement, fuel used for

cooking , source of drinking water, place of defecation, place of bathing, place of washing clothes, preference to medical facilities, frequency of home visits, frequency of purchase of daily necessities, reason for home visits, number of places changed, reason for migrating to Delhi city, reason for staying on this particular pavement, affordability to shelter, dwelling during monsoon season, reason for less preference for night shelter, future plans, priority in life, saving, improvement in standard of living, remittances, expenditure on food, expenditure on shelter, expenditure on transport, expenditure on health, expenditure on clothes, expenditure on toilet and bathing facilities, expenditure on smoking, expenditure on liquor, expenditure on drugs, expenditure on cinema, sources of loan, ration card, etc. The detail analysis of the investigation is presented as below:

## **4.2 INCOME**

Income is the most important parameter, which decide the function of any socio-economic dynamic functional system. The growth in income of the given socio-economic system lead to increase in standard of living, increase in social well being, increase in proper use of infrastructure services, increase in capital formation, increase in saving, increase in investment, increase in production, increase in trade and commerce, increase in income, etc. like a cyclical process. In fact one can easily understand the functions of income in the socio-economic system if scientific analytical work is done.



*Homeless Sleeping Under Bus Stop*



***Fig. No. 4.1 Homeless Persons at Old Delhi Railway Station In Walled City***





***Fig. No. 4.2 Homeless Persons at Hanuman Mandir in Central Zone***





***Fig. No. 4.3 Homeless Persons at Pilli Kothi  
in Walled City Zone***



**Fig. No. 4.4 Homeless Persons at Dariya Ganj in Walled City Zone**





***Fig. No. 4.5 Homeless Persons at Sadar Bazaar in Old City Zone***



***Fig. No. 4.6 Homeless Persons at Chitra Gupta Road in Central Zone***

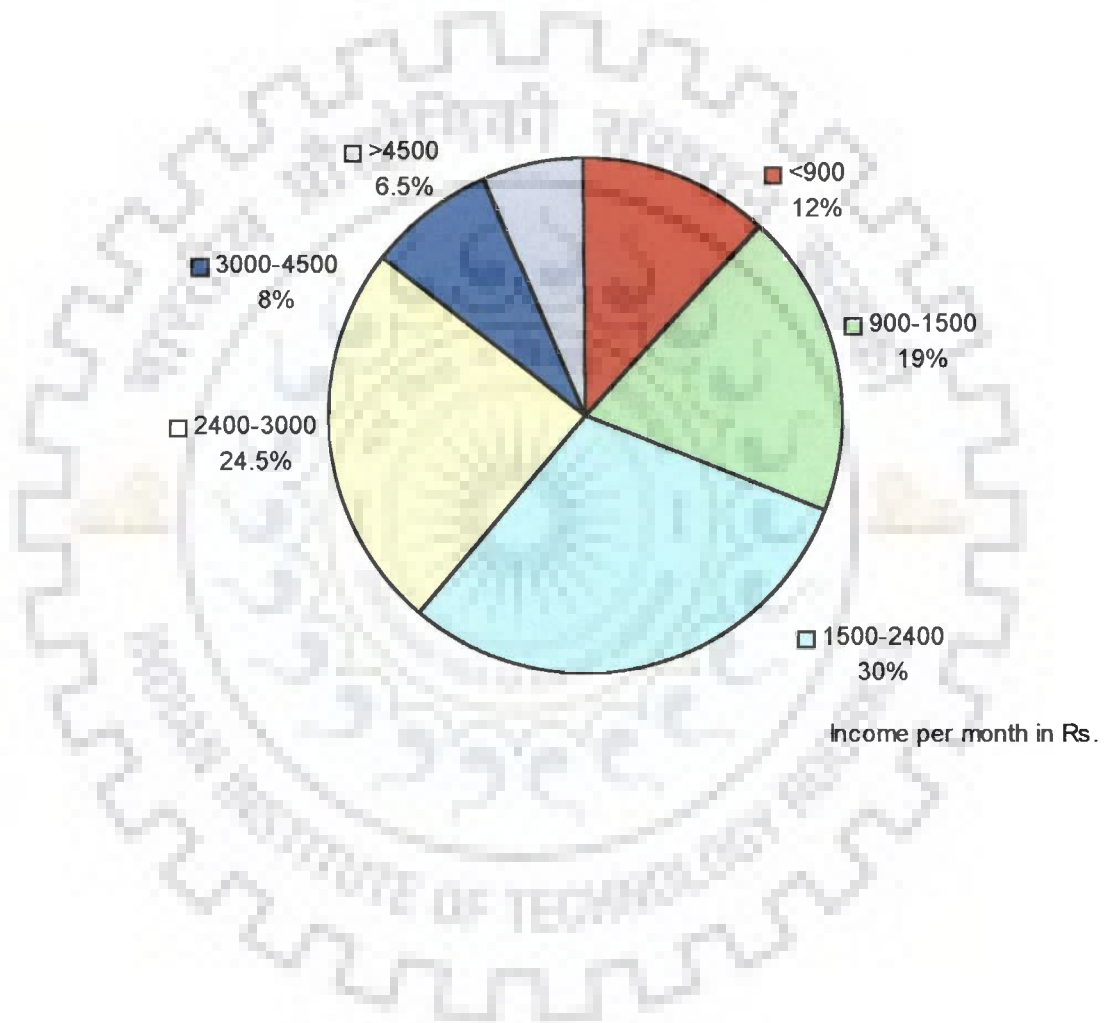
In the present investigation, an attempt is made to understand the income status of the homeless persons of the Delhi City since these persons become homeless due to earning low income.

The Investigator conducted this present investigation by choosing the total of 306 homeless persons as respondents. A pre-tested schedule was used to conduct this present investigation. Once the survey was over, the surveyed schedules were scrutinised and used for data processing for taking scientific analytical work. Since income is the dependent variables, which almost decide the functions of the system, the variable income is used for grouping the respondents under various groups. Accordingly, six income groups are made, such as, people having monthly income, Rs. < 900, 900-1500, 1500-2400, 2400-3000, 3000-4500, and > 4500. All the surveyed respondents are grouped under the above classified income group categories and presented in Table 4.1 and Fig. 4.7. The table illustrates that the number of respondents are increasing along with income upto the monthly income of Rs. 1500-2400, and then started to observe the declining trend. It is observed that about two-third respondents, (61 per cent) are confined within this income groups, i.e., Rs.<900 to 2400. The rest of the respondents (39 per cent) belonging to the income group between Rs. 2400 to > 4500. The respondents in different income groups, such as Rs. <900, Rs. 900-1500, Rs. 1500-2400, Rs. 2400-3000, Rs. 3000-4500, and Rs. > 4500 per month are accounted as 12 per cent, 19 per cent, 30 per cent, 24.50 per cent, 8 per cent and 6.50 per cent respectively.

*Table 4.1: Status of Income.*

*(Income per month in Rs.)*

<i>S.No.</i>	<i>Income</i>	<i>Total</i>	<i>Percent(%)</i>
1	<900	36	12.00
2	900-1500	58	19.00
3	1500-2400	92	30.00
4	2400-3000	75	24.50
5	3000-4500	25	8.00
6	>4500	20	6.50
	<b>Total</b>	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>100.00</b>	



**FIG. 4.7 : STATUS OF INCOME**

Source: Primary Survey, September 2001



It is very distressing to note that there are little more than one-tenth of the respondents (12 per cent) earn less than Rs. 30/- per day, which is below the United Nations accepted universal poverty line rate of \$1 (about Rs. 48) per day. About 85 per cent of the respondents are earning below the minimum wage, which is Rs. 96 per day as fixed under the Minimum Wages Act, 1948. It has been observed during the field study that majority of the homeless persons are living under the most vulnerable conditions in the urban system.

### **4.3 AGE CLASSIFICATION**

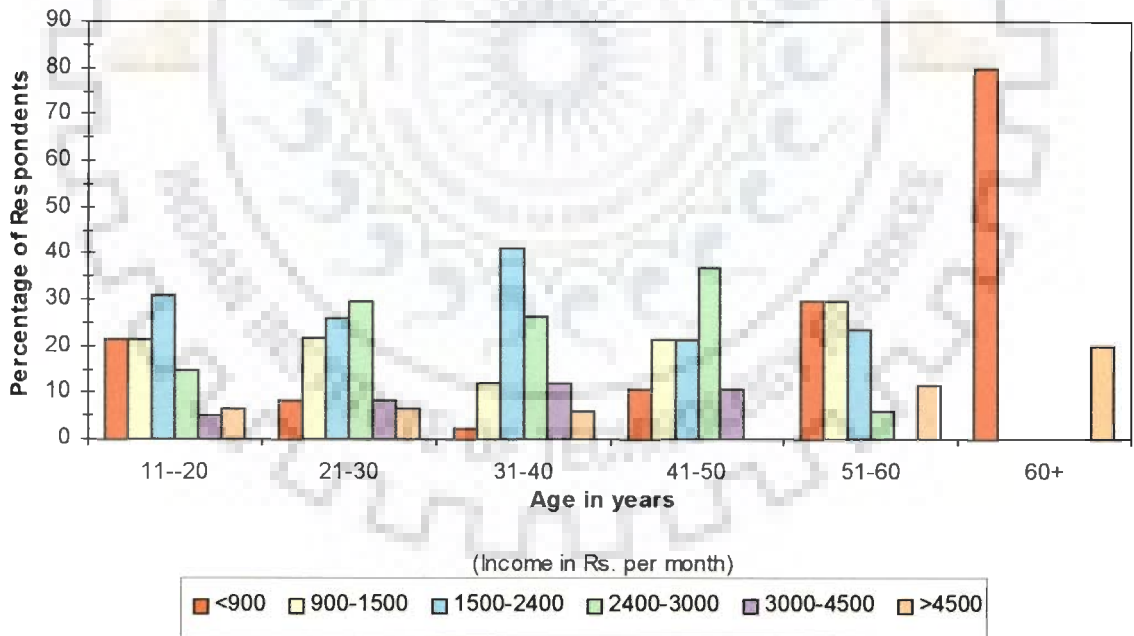
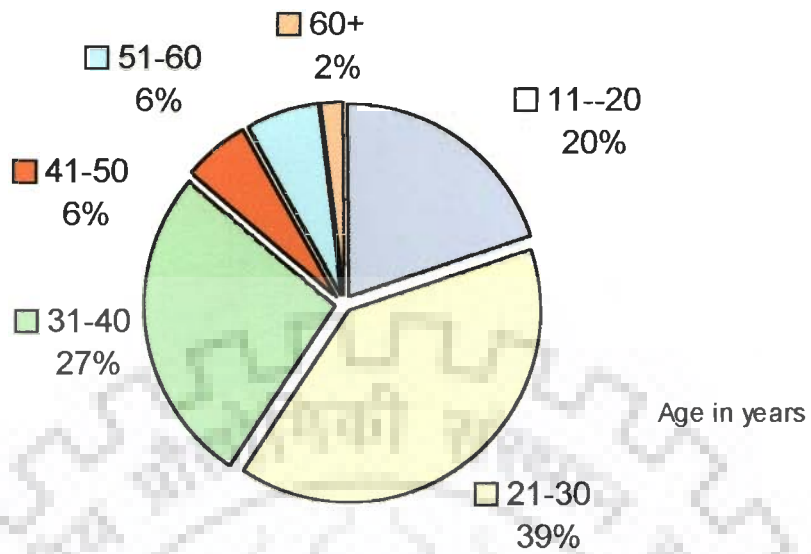
Analysis of age group of the sample respondents is very much vital as it directly affects their occupation, income, education, marital status and thus their responsibility towards their families. Poverty increases with age (after crossing certain age i.e. 60 years that limit the activities) in case of homeless group after certain age. Since the major portion of the homeless group are involved in hard physical labor activities and thus their earning capacity reduces with age. So in older age, they look for jobs, which require less physical strength but in that age also they are required to work, as they don't have any old age security unlike other segments of the urban systems. Hence, they remain more vulnerable to poverty.

Having this knowledge in mind, the Investigator studied the age group of the sample respondents meticulously to understand their age group and presented in Table 4.2 and Fig. 4.8. The table elucidates that the majority of respondents (92 per cent) belong to the age group of 11-50 years. This group generally does much hard work, such as, pulling rickshaws, other labour

**Table 4. 2: Age Classification**

*( Age in years )*

S.No.	Income per month	Age classification						Total	Percent(%)
		11-20	21-30	31-40	41-50	51-60	60+		
1	<900	13 (21.31 )	10 (8.26)	2 ( 2.40)	2 ( 10.52)	5 ( 29.42)	4 ( 80)	36	12.00
2	900-1500	13 (21.31)	26 ( 21.48)	10 ( 12.06)	4 (21.06 )	5 ( 29.42)	-	58	19.00
3	1500-2400	19 (31.15)	31 ( 25.62)	34 ( 40.96)	4 (21.06 )	4 ( 23.52)	-	92	30.00
4	2400-3000	9 ( 14.75)	36 ( 29.76)	22 ( 26.50)	7 ( 36.84)	1 ( 5.88)	-	75	24.50
5	3000-4500	3 ( 4.92)	10 ( 8.26)	10 ( 12.06)	2 ( 10.52)	-	-	25	8.00
6	>4500	4 ( 6.56)	8 ( 6.62)	5 ( 6.02)	-	2 ( 11.76)	1 ( 20)	20	6.50
	<b>Total</b>	<b>61</b> ( 100.00)	<b>121</b> ( 100.00)	<b>83</b> ( 100.00)	<b>19</b> ( 100.00)	<b>17</b> ( 100.00)	<b>5</b> ( 100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>20.00</b>	<b>39.00</b>	<b>27.00</b>	<b>6.00</b>	<b>6.00</b>	<b>2.00</b>	<b>100.00</b>	



**Income Group wise Age Classification**

**FIG. 4.8 : AGE CLASSIFICATION**

Source: Primary Survey, September 2001

activities, etc, thus showing that this group has enough physical strength to carry hard labour activities and rest 8 per cent are above 50 years of age group. This clearly shows that the younger and not the older persons who are ready to take a chance of urban migration, and continuing their activities without even having proper shelter (home).

It has been observed from the table that the numbers of respondents are increasing along with increase in monthly income from Rs. < 900 to Rs. 2400, but it started to decrease along with increase in income from Rs. 2400 to Rs. >4500. It shows that about two-third of the respondents are having the monthly income between Rs 1500 and Rs. 4500, which moderately serve the purpose of living in the city.

The Investigator has conducted further discussion with the respondents and found that the income earning is decreasing along with increase in age since they are unable to engage themselves in much hard labour activities. This reflects in their life styles too.

#### **4.4 RELIGION**

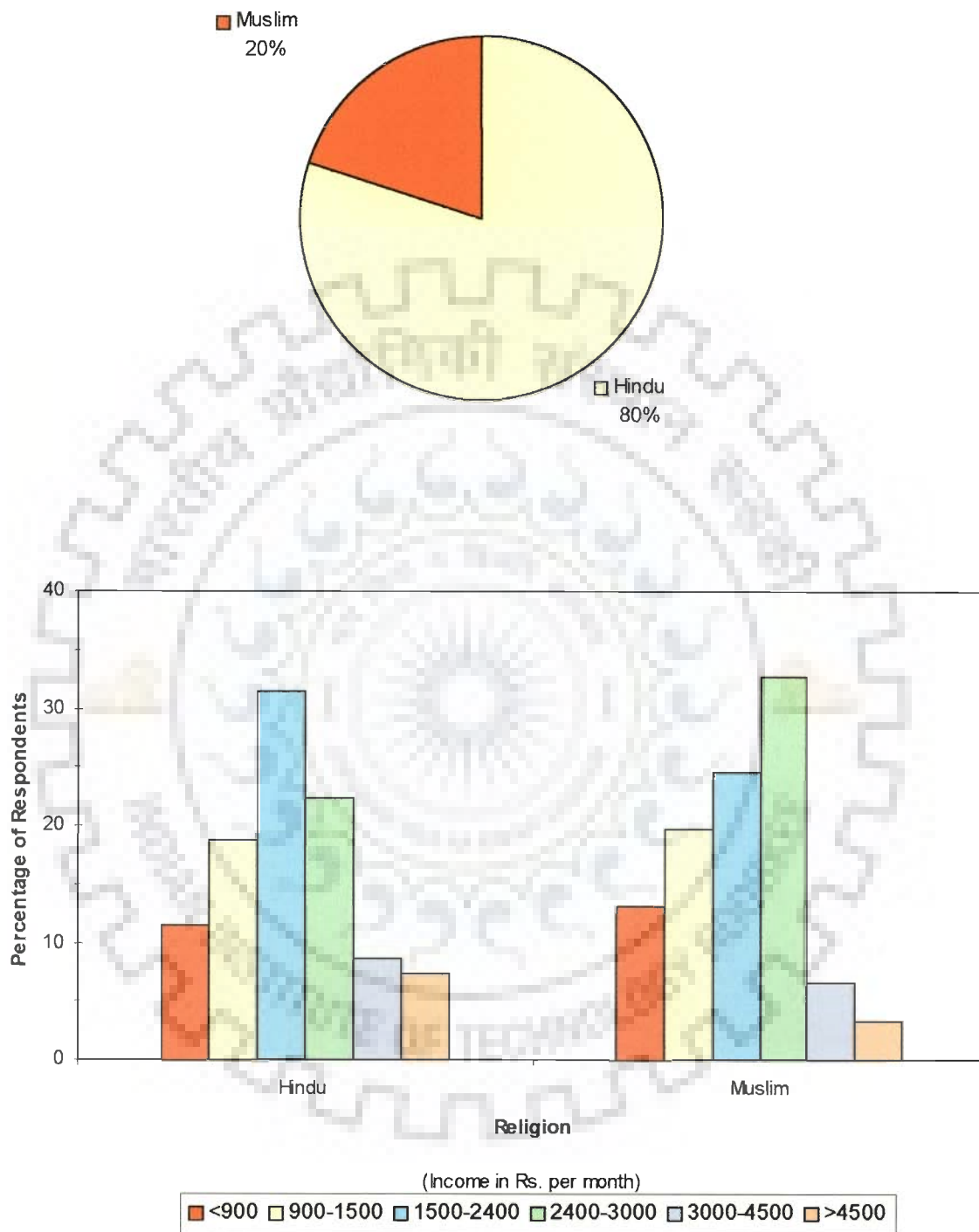
Religion plays a very dominant role in Indian society. In India, the major religions like Hindu, and Muslim are very dominant, and few other religions, such as, Christian, Buddhist, Jainism, etc., also function along with these major religions. Apart from them, a section of people used to follow ancestral worships by having their own traditions, cult, etc. In some places, religion plays an important role in bringing people together under one umbrella in doing development activities too. It has been observed that whenever people are

belonging to minority religious groups, they used to form a group and settle together. The social networks based on religion, caste, and region of origin form the fundamental basis of social group among the homeless groups. Having this knowledge in mind, the Investigator has made an attempt to study the religious pattern of the homeless, and presented in Table 4.3 and Fig. 4.9. This table elucidates that four-fifth (80 per cent) of the homeless persons belong to Hindu religion, and the rest of them (20 per cent) belong to Muslim religion. It has been observed that the available respondents either belonging to Hindu or Muslim community, and their accountability is increasing along with increase in income to the certain extent, and started to observe the reverse trend along with increase in income from the group belongs to Rs. 2400-4500.

It has been observed that the Muslim religion persons, more or less, formed groups and settled in the night where the Muslim dominated areas, such as, Jama Masjid, Ajmeri Gate, etc. for social protection since they are lesser in number compared to Hindu religion persons. In fact, the homeless persons are belonging to the lowest ebb of the society. In India, though, the Muslim religion population is accounted for about one-third (33 per cent) of the total population, they (homeless Muslim) represent only one-fifth (20 per cent) of the total homeless. It seems, the Muslim population is little more well off than the Hindu population.

*Table 4.3 : Religion*

<i>S. No.</i>	<i>Income per month</i>	<i>Religion</i>		<i>Total</i>	<i>Percent (%)</i>
		<i>Hindu</i>	<i>Muslim</i>		
1	<900	28 (11.42)	8 (13.12)	36	12.00
2	900-1500	46 (18.79)	12 (19.67)	58	19.00
3	1500-2400	77 (31.42)	15 (24.59)	92	30.00
4	2400-3000	55 (22.44)	20 (32.78)	75	24.50
5	3000-4500	21 (8.59)	4 (6.55)	25	8.00
6	>4500	18 (7.34)	2 (3.29)	20	6.50
	<b>Total</b>	<b>245</b> (100.00)	<b>61</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>80.00</b>	<b>20.00</b>	<b>100.00</b>	



**Income Group wise Religion**

**FIG. 4.9 : RELIGION**

Source: Primary Survey, September 2001



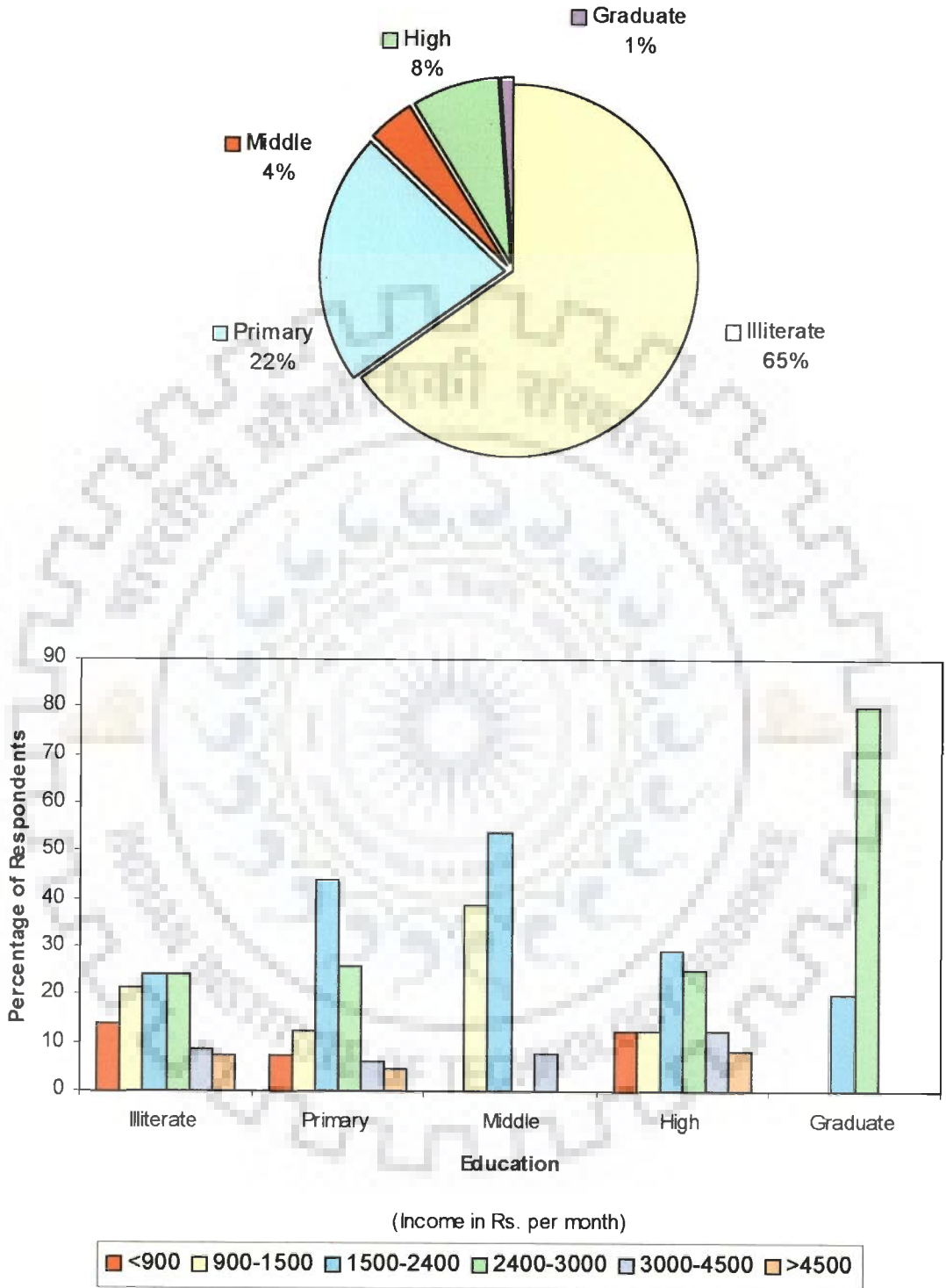
## 4.5 EDUCATION

Poverty, lack of awareness and lack of willingness for education are the major factors, which affect the access to education of the homeless people. In Indian culture, especially in Delhi, money power decides the function of the educational system. Even in Corporation Schools (Government schools), they collect more money as fee. The poorest among the poor segment (homeless) persons, who stay on the footpath, religious places, bus stand, railway platforms, etc. cannot afford the cost of education of their wards. Moreover, if they are little well off to pay fee for their children, they may go for making settlement arrangement instead of providing education to their wards, since settlement (home) is one of the basic necessary items. Moreover, these segments become homeless due to poverty and other social evils, and they will try to send their children only for labour instead of sending them to school for studying. Since they can also earn little money that can be added along with parent earnings, which can little further improve their purchasing power.

In India, migration also takes place from rural to urban areas due to faulty education system, which prevails. The educated youth of the rural system migrate to the urban system for job. If the educated youth does not have enough money for settlement, he/she has to search for an accommodation on the platform, religious places and so on. In this forms too, the type of homeless numbers increases in the system. Having the knowledge of these functions, the Investigator investigated the education status of the homeless in the study area, and presented in Table 4.4 and Fig. 4.10. The table explains that about two- third

**Table 4.4: Education**

<i>S.No.</i>	<i>Income per month</i>	<i>Education</i>					<i>Total</i>	<i>Percent (%)</i>
		<i>Illiterate</i>	<i>Primary</i>	<i>Middle</i>	<i>High</i>	<i>Graduate</i>		
1	<900	28 (14.14)	5 (7.57)	-	3 (12.50)	-	36	12.00
2	900-1500	42 (21.21)	8 (12.13)	5 (38.46)	3 (12.50)	-	58	19.00
3	1500-2400	48 (24.25)	29 (43.95)	7 (53.85)	7 (29.16)	1 (20)	92	30.00
4	2400-3000	48 (24.25)	17 (25.75)	-	6 (25.00)	4 (80)	75	24.50
5	3000-4500	17 (8.58)	4 (6.06)	1 (7.69)	3 (12.50)	-	25	8.00
6	>4500	15 (7.57)	3 (4.54)	-	2 (8.34)	-	20	6.50
	<b>Total</b>	<b>198</b> (100.00)	<b>66</b> (100.00)	<b>13</b> (100.00)	<b>24</b> (100.00)	<b>5</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>65.00</b>	<b>22.00</b>	<b>4.00</b>	<b>8.00</b>	<b>1.00</b>	<b>100.00</b>	



**Income Group wise Education**

**FIG. 4.10 : EDUCATION**

Source: Primary Survey, September 2001

(65 per cent) of the surveyed homeless do not have literacy at all. Of the literate persons (108), about 61 per cent has only primary level of education. The rest of them are scattered into middle school, high school and even very few in graduate segments.

It has been very strongly observed that education never play a major role in income earning activities among these particular segment (homeless personal) since their activities do not require any types of formal education.

It is very much distressing to note that more than 90 per cent of the surveyed respondents are interested to send their wards to schools but due to lesser income, and higher fees in the educational institutions, their dreams could not meet so far. The Author has come to know during the survey by having discussion with the homeless and educational institutions that the homeless persons wards are unable to get admission in school due to lack of identity (birth certificate, addresses, etc.). As a consequence the children of the homeless are forced to take up job, even during the childhood, along with their parents.

#### **4.6 MARITAL STATUS**

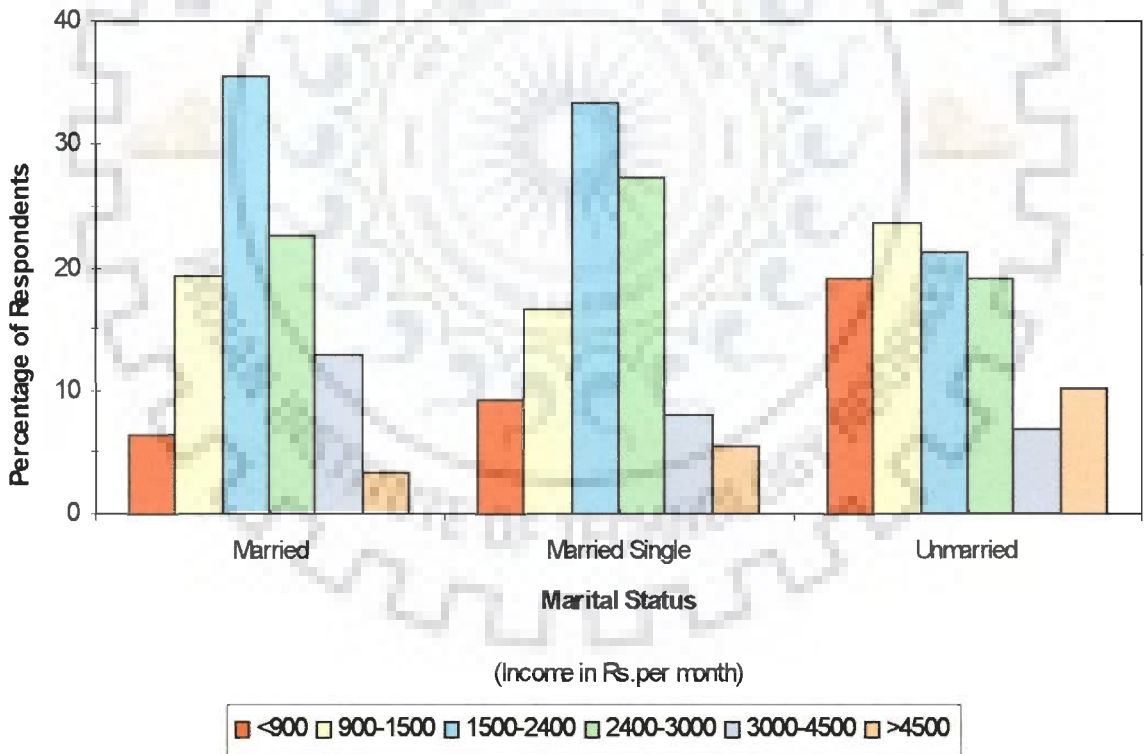
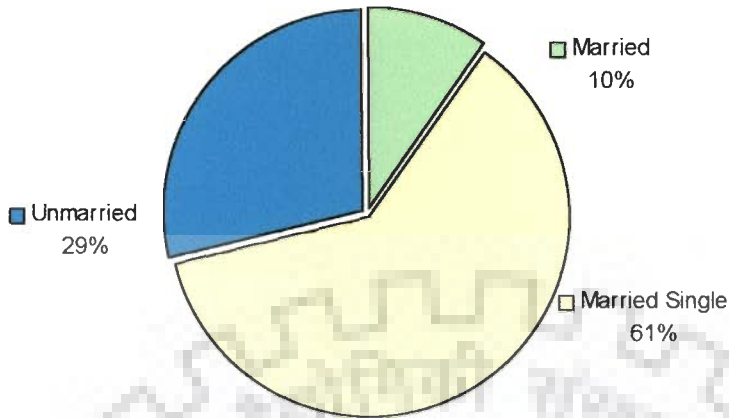
Understanding the marital status of the homeless persons is very much important in this present investigation since the homeless segments are either living on the footpaths or on the railway platforms, or in front of the shops, or in bus stands, along with family, children, or alone. In many places, they live by groups (during the night). Even in some cases, they move together (both male and female together) for taking up collie job activities. In some places, the male persons alone go for coolie (work based earning) activities, and the family never

go for job. Generally, the married persons used to have more responsibility in the system. They used to earn money, and spent for the development of the entire family. Having these knowledge, it is of interest to understand the marital status of the homeless segment of the society, the marital status is also included as one of the variables in this present investigation, and the results are presented in Table 4.5 and Fig. 4.11. This table reveals that about two- third (61 per cent) of the homeless persons are married but living alone in the city and left their families and children in the villages from where they migrated. About one-third (29 per cent) of the homeless persons are found unmarried, and are migrated in very young age, and rest 10 per cent are married and staying with their families on either footpaths or in parks or in religious places, etc. It is very distressing to note that though about two- third (61 per cent) homeless persons are married, they do not have family life at all. They left their families, relatives, friends, etc. in their villages, and migrated to the city due to poverty and unemployment problems, earning money and send to their family for their survival. They are unable to bring their family to the city due to lesser earning.

It has been observed that in all types of groups (married, married single and unmarried), the number of respondents are increasing along with monthly income increase from Rs. <900 to 2400, and it started to observe reverse trend along with increase in monthly income from Rs. 2400 to > 4500. It clearly shows that most of the people irrespective of either married or unmarried or married single confined in lower income group categories.

*Table 4.5 : Marital Status*

S. No.	Income per month	Marital Status			Total	Percent (%)
		Married	Married Single	Unmarried		
1	<900	2 (6.45)	17 (9.13)	17 (19.10)	36	12.00
2	900-1500	6 (19.35)	31 (16.66)	21 (23.59)	58	19.00
3	1500-2400	11 (35.49)	62 (33.33)	19 (21.34)	92	30.00
4	2400-3000	7 (22.59)	51 (27.41)	17 (19.10)	75	24.50
5	3000-4500	4 (12.90)	15 (8.08)	6 (6.75)	25	8.00
6	>4500	1 (3.22)	10 (5.39)	9 (10.12)	20	6.50
	<b>Total</b>	<b>31</b> (100.00)	<b>186</b> (100.00)	<b>89</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>10.00</b>	<b>61.00</b>	<b>29.00</b>	<b>100.00</b>	



**Income Group wise Marital Status**

**FIG. 4.11 : MARITAL STATUS**

Source: Primary Survey, September 2001

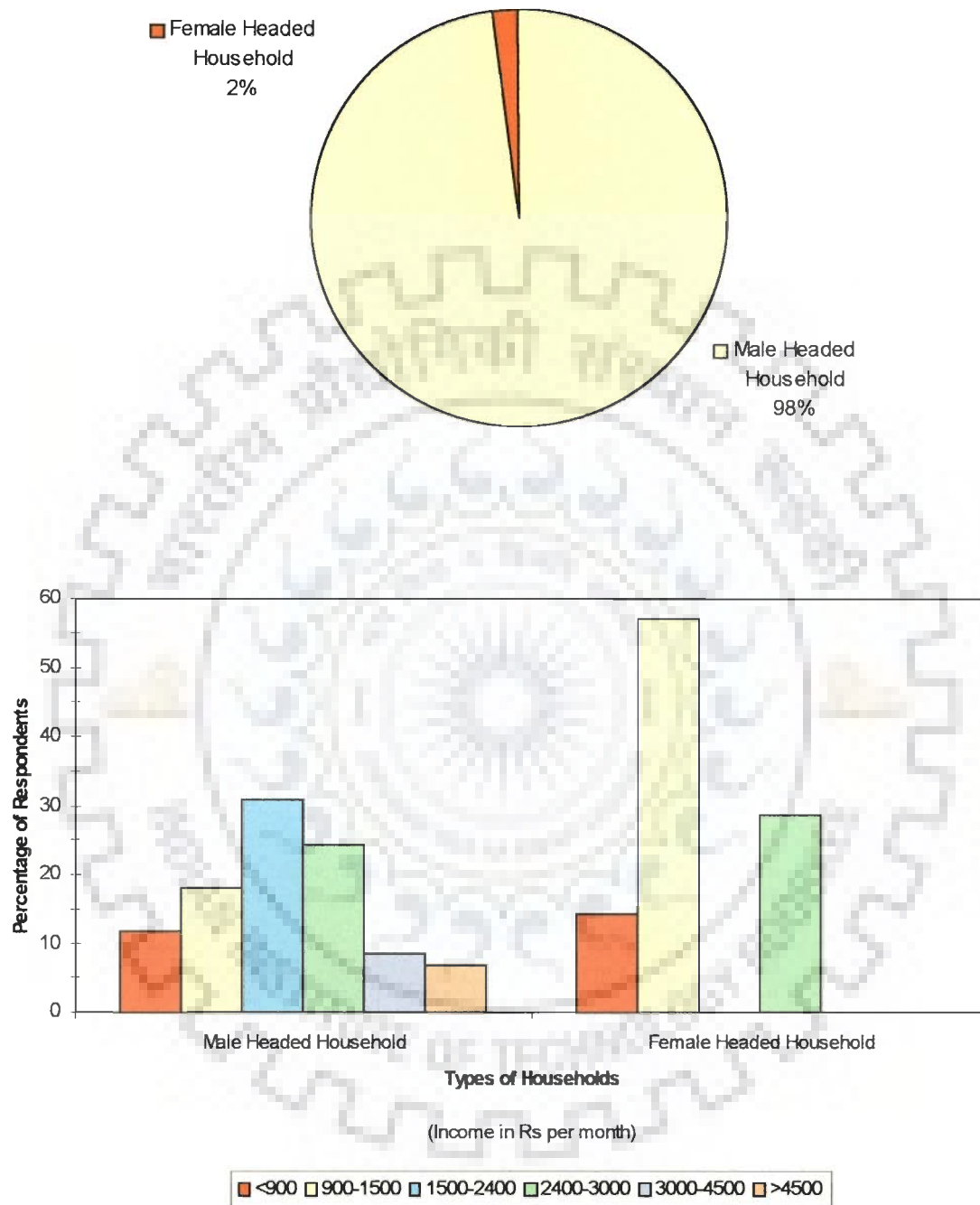


## 4.7 TYPES OF HOUSEHOLDS

The Indian Society is almost dominated by the patriarchal family system. There are very few places in India where matriarchal family system is also practiced. But, by and large, patriarchal type of family system is dominated in almost all Hindu religious families, where the male (the head of the household is male and even the property right is also given to the male member of the families) member of the family get more priorities, and they lead the administration of the households. It is of interest to understand the structure of the households, in this present investigation, the Investigator investigated the types of households, and the results are presented in Table 4.6 and Fig.4.12. This table reveals that patriarchal family system is found in almost all households across all segment of the income categories (98 per cent), and a very meager respondents of matriarchal family system (2 per cent) is observed in the system. It is interesting to note that even in the homeless segment of the society also follow the same pattern of the social system.

*Table 4.6 : Type of Households*

<i>S. No.</i>	<i>Income per month</i>	<i>Types of Households</i>		<i>Total</i>	<i>Percent (%)</i>
		<i>Male Headed Household</i>	<i>Female Headed Household</i>		
1	<900	35 (11.70)	1 (14.28)	36	12.00
2	900-1500	54 (18.06)	4 (57.14)	58	19.00
3	1500-2400	92 (30.79)	-	92	30.00
4	2400-3000	73 (24.41)	2 (28.58)	75	24.50
5	3000-4500	25 (8.36)	-	25	8.00
6	>4500	20 (6.68)	-	20	6.50
	<b>Total</b>	299 (100.00)	7 (100.00)	306	100.00
	<b>Percent(%)</b>	98.00	2.00	100.00	



**Income Group wise type of Households**

**FIG. 4.12 :TYPE OF HOUSEHOLDS**

Source: Primary Survey, September 2001

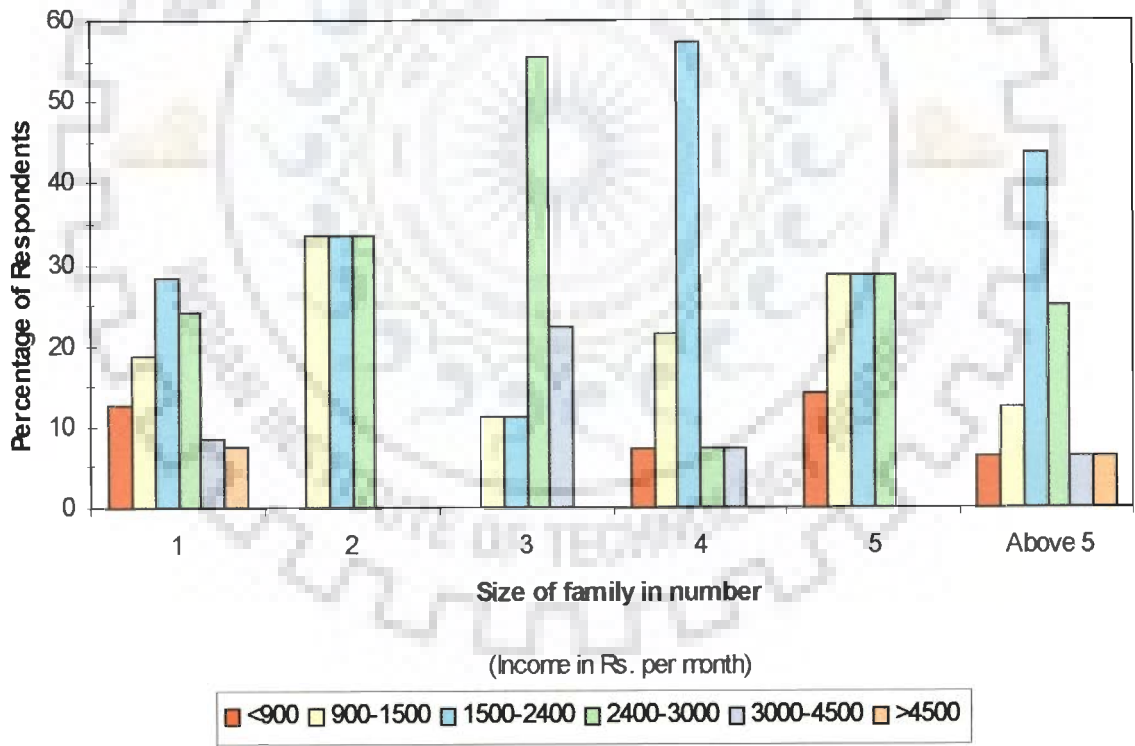
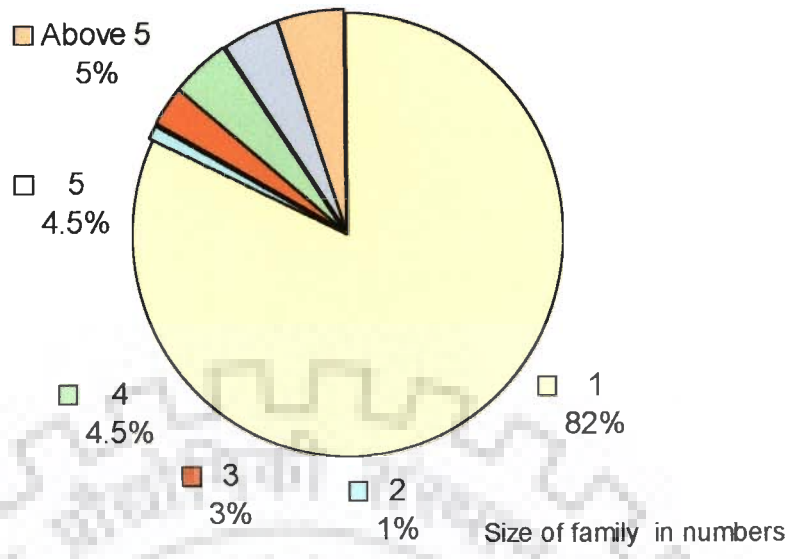
## 4.8 SIZE OF FAMILY

Population is one of the most important parameters, which decides the function of the system. Family size is very much responsible in population production. Generally, in India, the economically downtrodden community used to produce more number of children, and thus size of family is also higher in number. There is a belief among the economically downtrodden communities that God gives children, and having more children in a family is the blessings of God. Whoever (which family) is having more children, they are more blessed by the God. Another fact is that the economically downtrodden community does not have much recreation, do not well aware of population control measures, and actively engaged in population production. As a result, the economically downtrodden section used to have more number of children in their houses, and the size of household becomes higher in number. Having this knowledge, the Investigator studied the size of the family of the sample respondents to understand the size of family and are reported in Table 4.7 and Fig. 4.13. This table explains that more than four- fifth of the population (82 per cent) are living alone, and little higher than one- tenth of the respondents (13 per cent) belong to nuclear family with four to five members. Some cases are reported that they are having more than five members in their family, and their numbers are very meager, which is accounted only 5 per cent of the total respondents.

Table 4.7: Size of family

(in number)

S.No.	Income per month	Size of family						Total	Percent (%)
		1	2	3	4	5	Above 5		
1	<900	32 (12.8)	-	-	1 (7.14)	2 (14.29)	1 (6.25)	36	12.00
2	900-1500	47 (18.8)	1 (33.33)	1 (11.11)	3 (21.42)	4 (28.57)	2 (12.5)	58	19.00
3	1500-2400	71 (28.4)	1 (33.33)	1 (11.11)	8 (57.14)	4 (28.57)	7 (43.75)	92	30.00
4	2400-3000	60 (24)	1 (33.34)	5 (55.56)	1 (7.15)	4 (28.57)	4 (25)	75	24.50
5	3000-4500	21 (8.4)	-	2 (22.22)	1 (7.15)	-	1 (6.25)	25	8.00
6	>4500	19 (7.6)	-	-	-	-	1 (6.25)	20	6.50
	<b>Total</b>	250 (100.00)	3 (100.00)	9 (100.00)	14 (100.00)	14 (100.00)	16 (100.00)	306	100.00
	<b>Percent(%)</b>	82.00	1.00	3.00	4.50	4.50	5.00	100.00	



**Income Group wise Size of Family**

**FIG. 4.13 : SIZE OF FAMILY**

Source: Primary Survey, September 2001

This table clearly shows that almost all size of household (one member, two members, four members and five members families) except 3 members household accounted alongwith increase in monthly income upto Rs. 2400, and then started to observe reverse trend along with increase in income.

Though 71 per cent of the size (surveyed population) are married (c.r.f Table 4.5), more than four- fifth (82 per cent) of the total sample population are living alone due to non-availability of shelter. It shows that the married persons are forced to live alone due to prevailing of socio-economic evils.

#### **4.9 PLACE OF ORIGIN**

Migration plays a dominant role among socio-economically deprived and suppressed communities. In India, majority of the rural system persons have been suffering from all kinds of socio-economic evils. As a consequence, push factors are working very vigorously and are pushing the people from the system to go out. Majority of the people (those who are undergoing the agony of the socio-economic evils) try to migrate for getting at least food, which lead to migration from the rural system to urban system. Once they reach to the urban system, they become orphan because they don't have anybody in the urban system to receive and feed them. They try to settle somewhere, but miserably failed since they do not have much money for the same. As a result, they live on footpath, bus stands, parks, flyovers, religious places, market area, etc. In some cases, the people belonging to same place (originated from the same area), also live on the footpath, bus stands, parks, flyovers, etc., together due to poverty and other socio-economic evils, which prevails in the system. Having all these



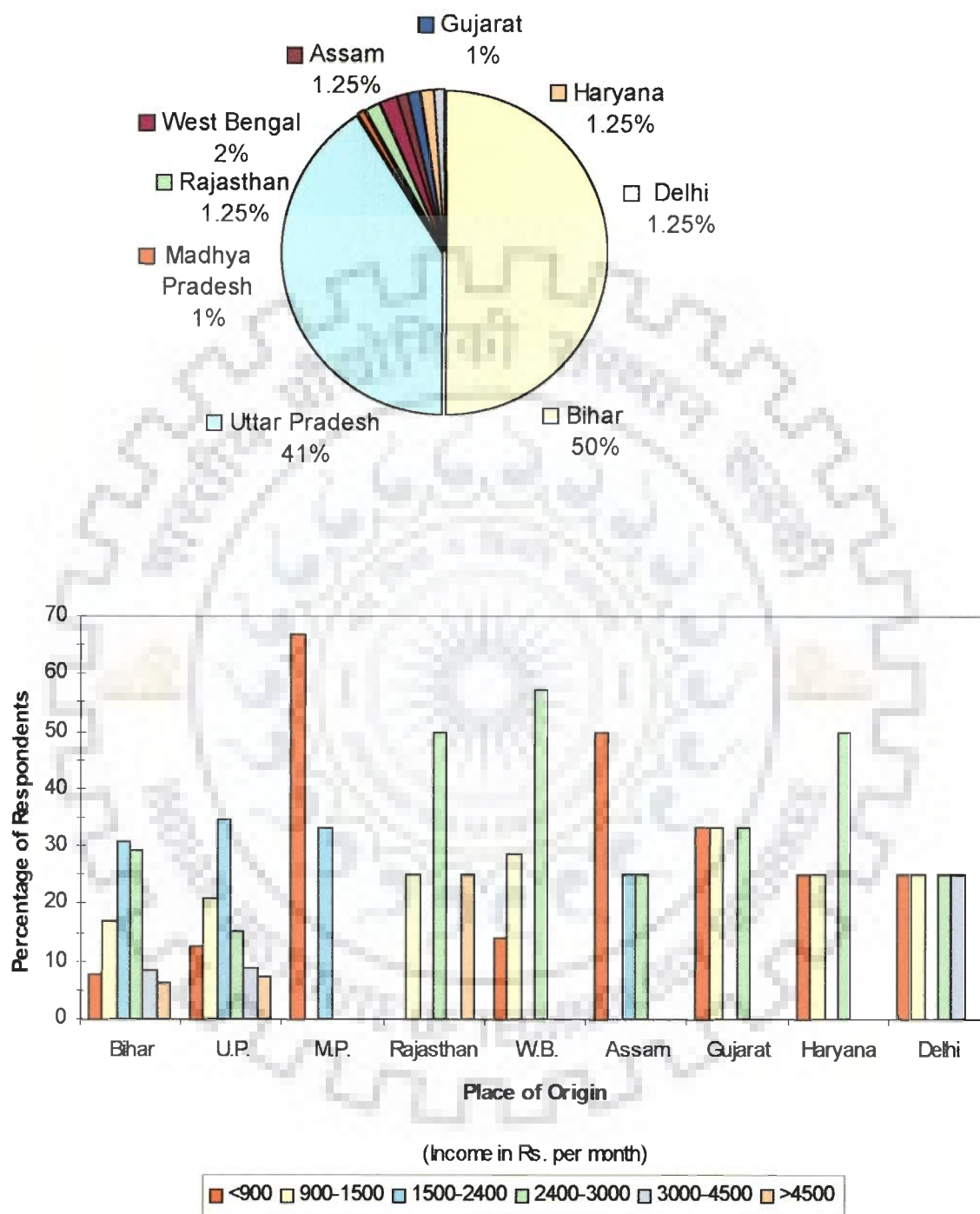
knowledge in mind, the Investigator studied the origin of the homeless persons among the survey samples, and the results are reported in Table 4.8 and Fig. 4.14. The table depicts that half of the surveyed samples (50 per cent) are migrated from neighbouring socio-economic depressed state, Bihar. Followed by another socio-economically depressed state Uttar Pradesh account for more than two-fifth (41 per cent) and 8.00 per cent belonging to Madhya Pradesh, Rajasthan, West Bengal, Assam, Gujarat and Haryana, and rest 1.00 per cent belong to the study area itself.

The table explains that more than half of the respondents, irrespective of place of migration, are confined in monthly income ranging from Rs. <900 to 2400. In this variable too, the accountability of persons are increasing from monthly income Rs. < 900 to Rs. 2400 and their accountability is observed in reverse trend beyond Rs. 2400 monthly income.

As per the state wise poverty statistics, Bihar state accounts for more number of poverty stricken people, followed by Uttar Pradesh and so on. It is also evident from the table that the city has more number of homeless persons from Bihar, and followed by from Uttar Pradesh. It is also further distressing to note that most of the migrated persons confined to lower income group category, and even then they try to settle in the capital. It seems to be that they could not survive in their home native state due to further aggravation of poverty in the system.

*Table 4.8: Place of Origin*

S.No.	Income per month	Place of Origin									Total	Percent (%)
		Bihar	Uttar Pradesh	Madhya Pradesh	Rajasthan	West Bengal	Assam	Gujarat	Haryana	Delhi		
1	<900	12 (7.84)	16 (12.90)	2 (66.66)	-	1 (14.28)	2 (50.00)	1 (33.33)	1 (25.00)	1 (25.00)	36	12.00
2	900-1500	26 (16.99)	26 (20.96)	-	1 (25.00)	2 (28.57)	-	1 (33.33)	1 (25.00)	1 (25.00)	58	19.00
3	1500-2400	47 (30.74)	43 (34.67)	1 (33.34)	-	-	1 (25.00)	-	-	-	92	30.00
4	2400-3000	45 (29.41)	19 (15.35)	-	2 (50.00)	4 (57.15)	1 (25.00)	1 (33.34)	2 (50.00)	1 (25.00)	75	24.50
5	3000-4500	13 (8.49)	11 (8.87)	-	-	-	-	-	-	1 (25.00)	25	8.00
6	>4500	10 (6.53)	9 (7.25)	-	1 (25.00)	-	-	-	-	-	20	6.50
	<b>Total</b>	<b>153</b> (100.00)	<b>124</b> (100.00)	<b>3</b> (100.00)	<b>4</b> (100.00)	<b>7</b> (100.00)	<b>4</b> (100.00)	<b>3</b> (100.00)	<b>4</b> (100.00)	<b>4</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>50.00</b>	<b>41.00</b>	<b>1.00</b>	<b>1.25</b>	<b>2.00</b>	<b>1.25</b>	<b>1.00</b>	<b>1.25</b>	<b>1.25</b>	<b>100.00</b>	



**Income Group wise Place of Origin**

**FIG. 4.14 : PLACE OF ORIGIN**

Source: Primary Survey, September 2001

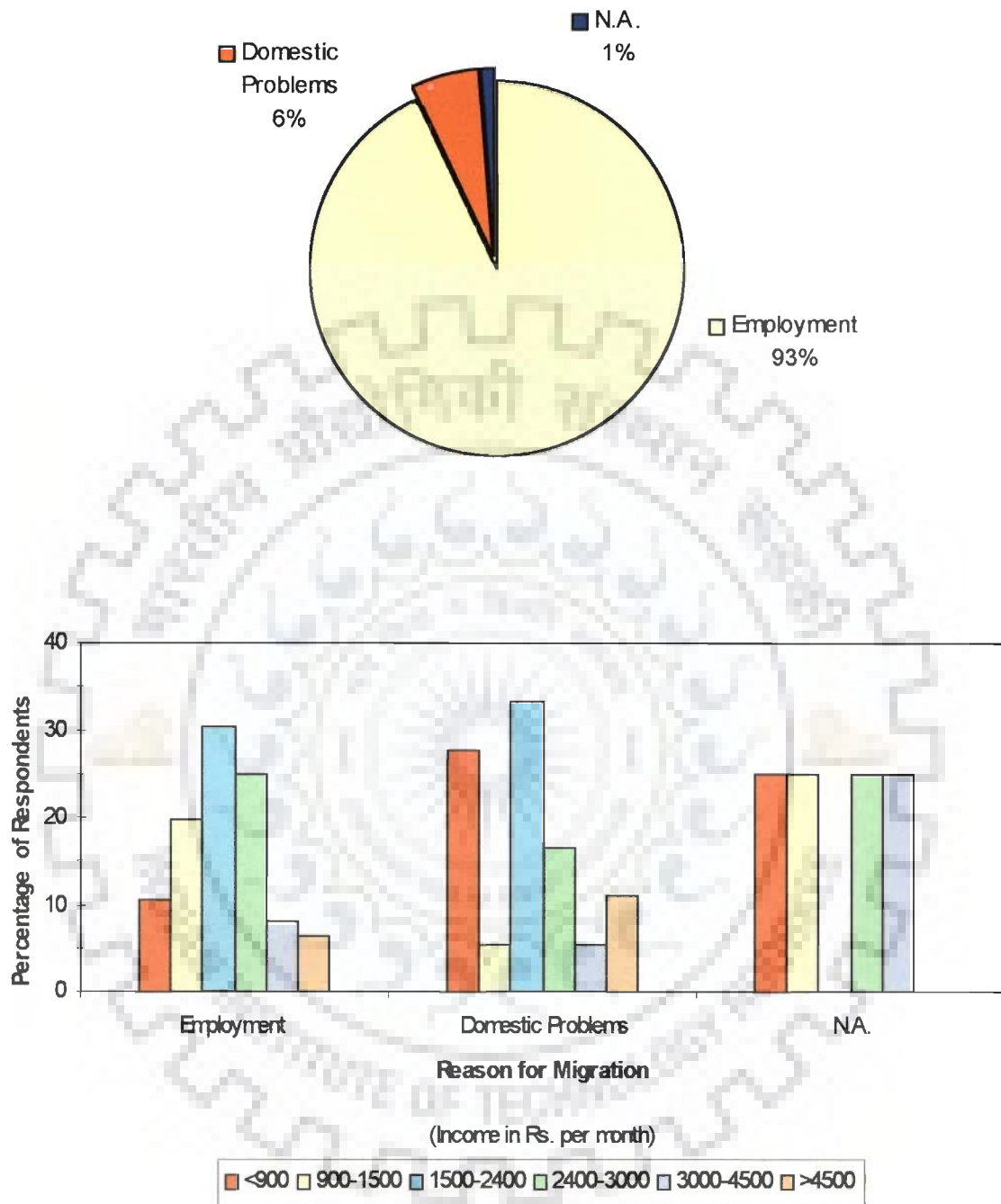
It is of interest, the Investigator has discussed further to the native homeless and found that they were born and brought up on the streets itself and they continue for the same.

#### **4.10 REASON FOR MIGRATION**

Generally, migration takes place due to prevailing socio-economic evils in the system. In India, though India has huge quantity of human resources, most of the human resources are not utilised properly due to several factors. More quantity of financial resources is very much essential to make them into technically advanced. Unfortunately, more than half of the total population is still illiterate, and a few percent are highly or moderately literate. Most of the literate persons are also experiencing or undergoing the problems of socio-economic evils, such as, unemployment, underemployment, disguise unemployment, vicious circle of poverty, malnutrition, etc. Under these circumstances, the illiterate persons do not have standing at all, and are mostly chained with misfortune of socio-economic evils. These factors virtually responsible for migration. Having all these knowledge in mind, the Investigator studied the reasons for migration among the homeless of the study area and the results are presented in Table 4.9 and Fig. 4.15. This table reveals that more than nine-tenth (93 per cent) of the homeless migrated due to prevailing economic evils, such as unemployment, underemployment, disguised unemployment, and poverty. A meager quantity of homeless (6 per cent) of the samples migrated due to social evils, which prevail in the system, like family disputes, divorce, death of parents,

*Table 4.9 : Reason for Migration*

S. No.	Income per month	Reason for Migration			Total	Percent(%)
		Employment	Domestic Problems	N.A.		
1	<900	30 (10.56)	5 (27.77)	1 (25.00)	36	12.00
2	900-1500	56 (19.74)	1 (5.55)	1 (25.00)	58	19.00
3	1500-2400	86 (30.28)	6 (33.33)	-	92	30.00
4	2400-3000	71 (25.00)	3 (16.66)	1 (25.00)	75	24.50
5	3000-4500	23 (8.09)	1 (5.55)	1 (25.00)	25	8.00
6	>4500	18 (6.33)	2 (11.14)	-	20	6.50
	<b>Total</b>	<b>284</b> (100.00)	<b>18</b> (100.00)	<b>4</b> (100.00.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>93.00</b>	<b>6.00</b>	<b>1.00</b>	<b>100.00</b>	



**Income Group wise Reason for Migration**

**FIG. 4.15 : REASON FOR MIGRATION**

Source: Primary Survey, September 2001

window-hood, etc. It is also distressed to note that one per cent of the total sample traditionally belong to the city (study area) it self.

It clearly shows that socio-economic evils are much responsible for migration from rural to urban system, and the people are adopting themselves in this system though they are in a vulnerable position in their day to day living in their native places.

The table also reveals that the reason for migration (employment and domestic) among the migrated persons are increasing along with increase in income categories upto monthly income Rs. 2400 and then started to observe the reverse trend from Rs. 2400. It shows that most of the migrated persons are confined within the lower level of income categories.

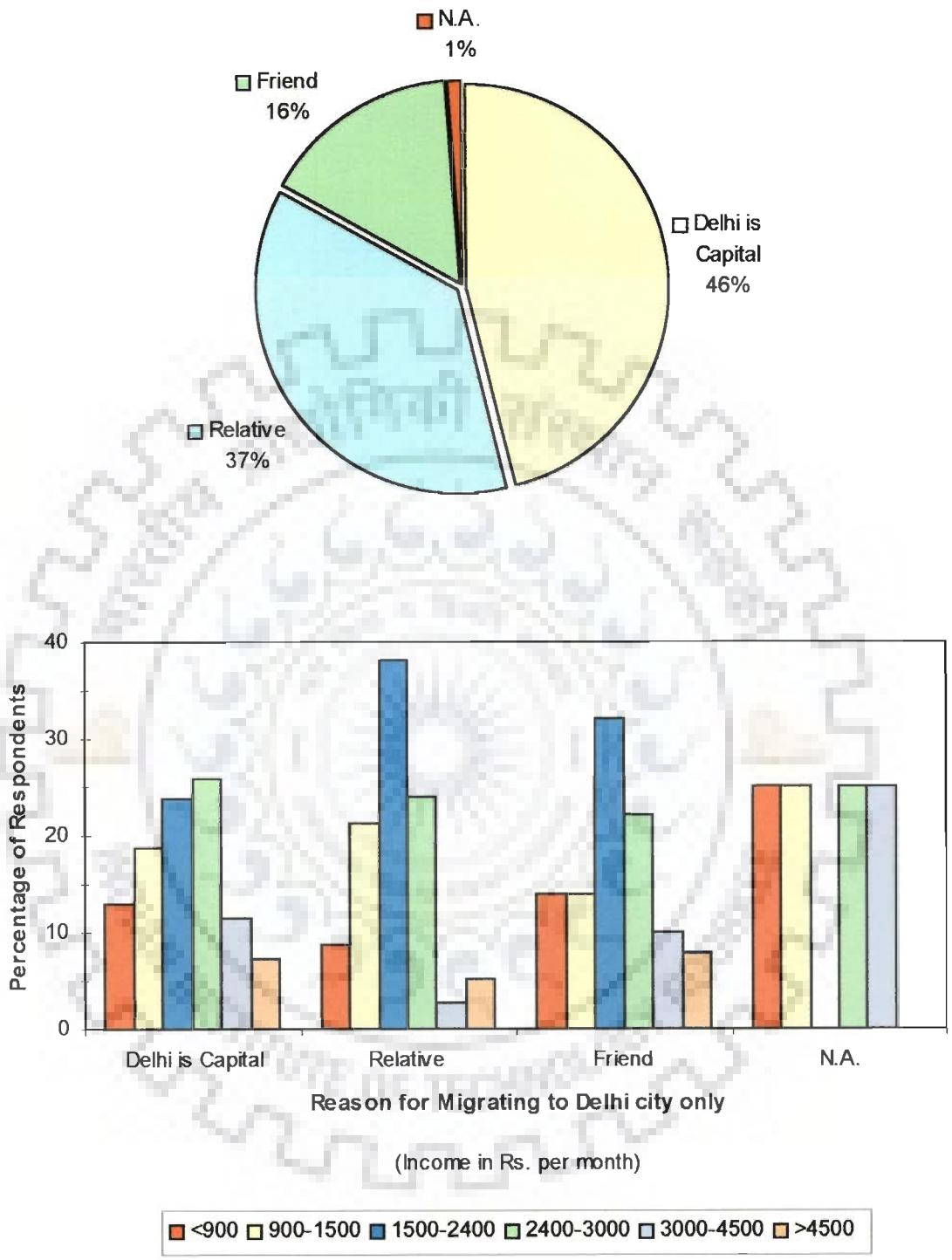
#### **4.11 REASON FOR MIGRATING TO DELHI CITY**

There are several factors, which influence the people to migrate particularly to Delhi City from the rural and other urban system too, due to being Delhi the capital city, the nearest big city, availability of opportunities to survive, etc. Besides these factors, there are some other hidden factors also responsible for migration, such as influence of friends and relatives among these particular poorest among the poor segment of the society, who are very badly in need of something for their existence. Having these knowledge in mind, the Investigator carefully studied the reason for migration among respondents, processed the data, and then the results are presented in Table 4.10 and Fig. 4.16. This table depicts that about half of the total respondents (46 per cent ) arrived to Delhi City since Delhi is the capital city and the nearest big city to the poverty stricken



*Table 4.10: Reason for Migrating to Delhi city only.*

S.No.	Income per month	Reason for Migrating Delhi				Total	Percent (%)
		Delhi is Capital	Relative	Friend	N.A.		
1	<900	18 (12.94)	10 (8.84)	7 (14.00)	1 (25.00)	36	12.00
2	900-1500	26 (18.70)	24 (21.25)	7 (14.00)	1 (25.00)	58	19.00
3	1500-2400	33 (23.77)	43 (38.05)	16 (32.00)	-	92	30.00
4	2400-3000	36 (25.89)	27 (23.89)	11 (22.00)	1 (25.00)	75	24.50
5	3000-4500	16 (11.51)	3 (2.67)	5 (10.00)	1 (25.00)	25	8.00
6	>4500	10 (7.19)	6 (5.30)	4 (8.00)	-	20	6.50
	<b>Total</b>	<b>139</b> (100.00)	<b>113</b> (100.00)	<b>50</b> (100.00)	<b>4</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>46.00</b>	<b>37.00</b>	<b>16.00</b>	<b>1.00</b>	<b>100.00</b>	



**Income Group wise Reason for Migrating to Delhi City**

**FIG. 4.16 : REASON FOR MIGRATING TO DELHI CITY**

Source: Primary Survey, September 2001

states, such as Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan and Haryana. Followed by, people arrived to Delhi since their relatives and friends were already living in Delhi, which account for relatives 37 per cent, and friends 16 per cent respectively. The members in all three groups (reason for migrating to Delhi) are increasing along with monthly income upto Rs. 1500 – 3000 and then started to observe the reverse trend.

The Investigator had conducted informal discussion once the data were processed along with the respondents very closely and found some major reasons for migration. They are (a) when the persons who live on the pavement go to their native places, they used to beat their trumpet stating that they are much well off in the urban system (b) they also usually spent more money in their home town during their visit though they live a vulnerable life in the urban system. (c) when the people who already live on the pavement bring few more people from the rural system to the urban system, these people feel that they are more socially secured because his own people's number are much higher in that particular locality, which lead to more moral strength, safety and even sharing their views, problems, and even sending money back to the persons in the home town through them. These behaviours of the people who already live on the pavement (people live on the pavement of the urban system) mesmerize the person those who are starving for basic needs in their native places irrespective of relatives, friends, own community persons, etc.

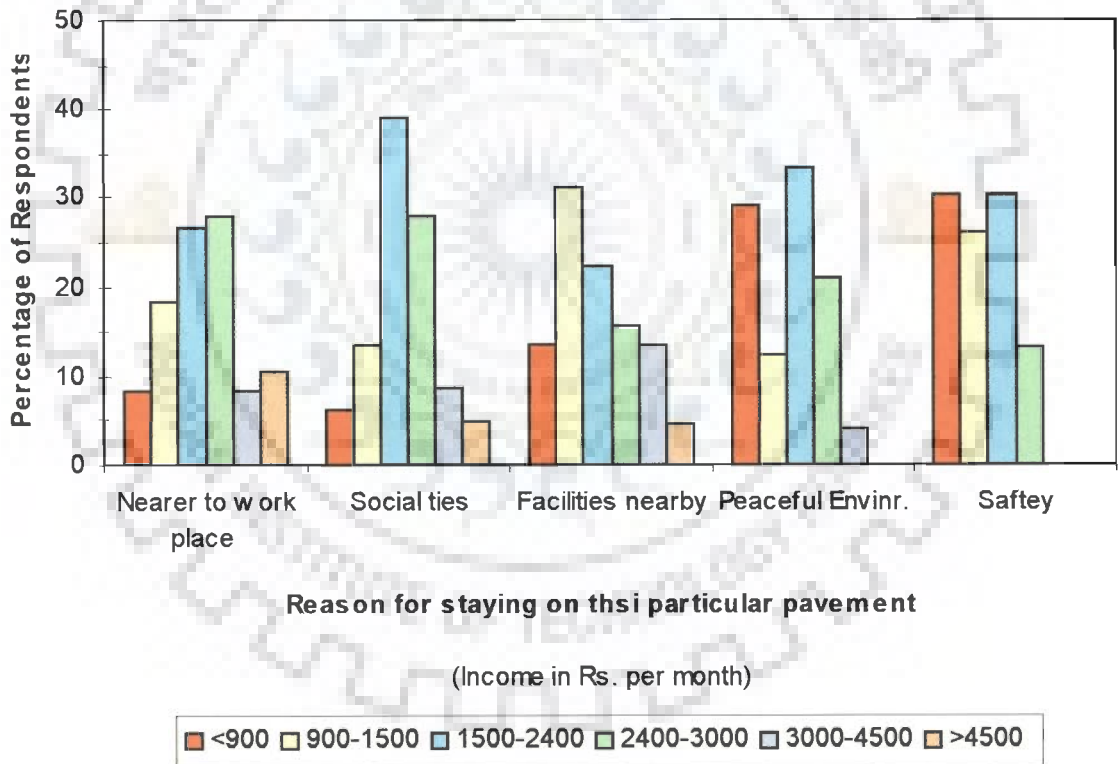
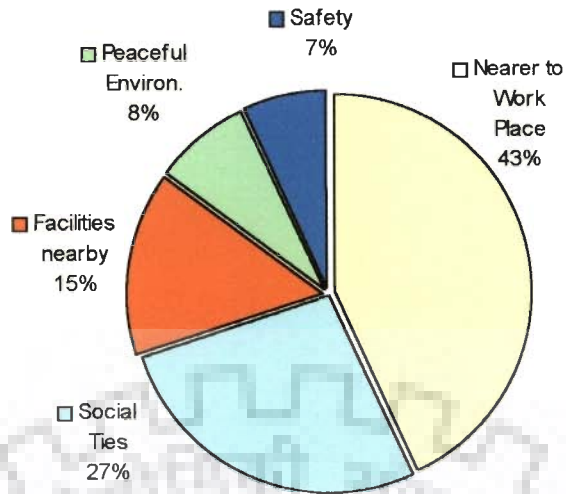
#### 4.12 REASON FOR STAYING ON THIS PARTICULAR PAVEMENT

Generally, more number of homeless persons used to live nearby their working places to save money and time for commuting. In some cases, people used to travel little distance to live with their kith and kin's who are also living as homeless, or very closely interacting with them, or belonging from their own community or native place, etc. Having these knowledge in mind, the Investigator has done thorough investigation about the reason for staying on particular pavement in the study area among the respondents and the results are presented in Table 4.11 and Fig. 4.17. The table explains that about half of the respondents (43 per cent ) stay on the particular pavement since it is very nearer to their work place. Followed by, 27 per cent due to strong social ties, 15 per cent due to availability of good infrastructure facilities, 8 per cent due to peaceful environment, and 7 per cent due to safety and security. It has been observed that the membership of the respondents in all the reasons stated above are increasing along with income to the extent, and then started to decrease, i.e., Rs. 1500 – 3000 per month.

It has been observed during a very close informal discussion with them that people belonging to the same linguistic, religion, and the same place of origin are living together on the particular pavement.

*Table 4.11: Reason for staying on this particular pavement*

<i>S.No.</i>	<i>Income per month Per</i>	<i>Reason for staying on this particular pavement</i>					<i>Total</i>	<i>Percent%</i>
		<i>Nearer to Work Place</i>	<i>Social Ties</i>	<i>Facilities nearby</i>	<i>Peaceful Environ.</i>	<i>Safety</i>		
1	<900	11 (8.33)	5 (6.09)	6 (13.33)	7 (29.16)	7 (30.44)	36	12.00
2	900-1500	24 (18.18)	11 (13.41)	14 (31.11)	3 (12.50)	6 (26.08)	58	19.00
3	1500-2400	35 (26.51)	32 (39.04)	10 (22.24)	8 (33.33)	7 (30.44)	92	30.00
4	2400-3000	37 (28.03)	23 (28.04)	7 (15.55)	5 (20.85)	3 (13.04)	75	24.50
5	3000-4500	11 (8.35)	7 (8.55)	6 (13.33)	1 (4.16)	-	25	8.00
6	>4500	14 (10.60)	4 (4.87)	2 (4.44)	-	-	20	6.50
	<b>Total</b>	132 (100.00)	82 (100.00)	45 (100.00)	24 (100.00)	23 (100.00)	306	100.00
	<b>Percent(%)</b>	43.00	27.00	15.00	8.00	7.00	100.00	-



**Income Group wise Reason for staying on this particular pavement**

**FIG. 4.17 : REASON FOR STAYING ON THIS PARTICULAR PAVEMENT**

Source: Primary Survey, September 2001

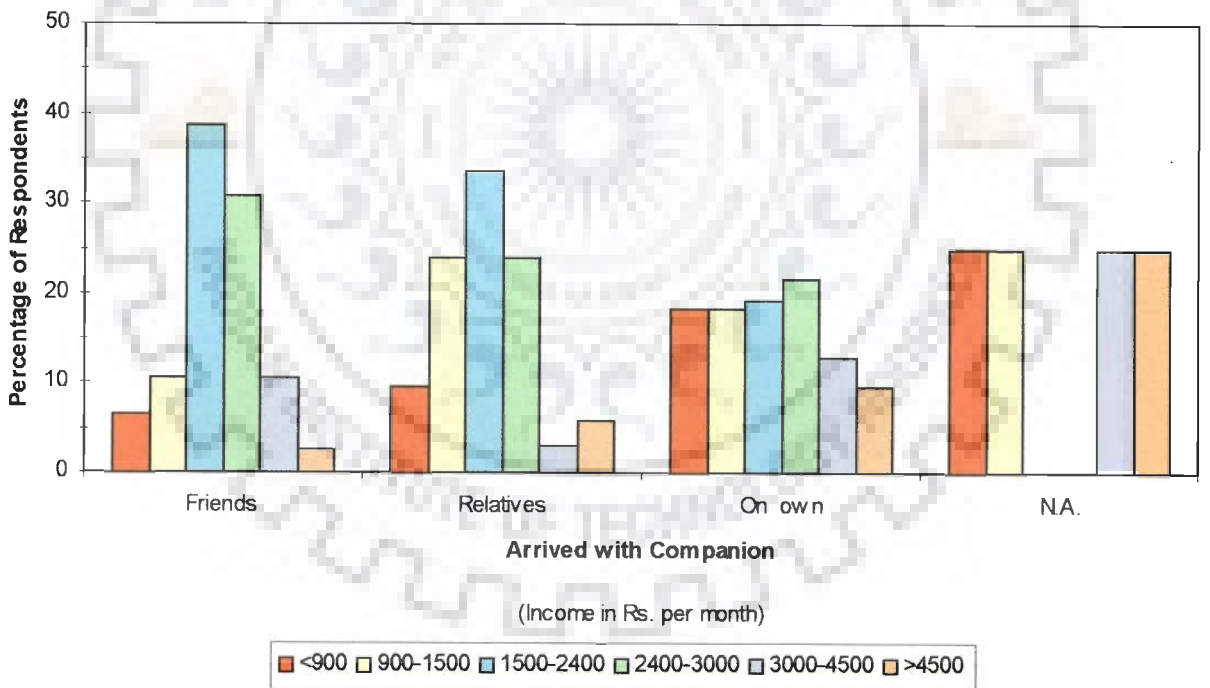
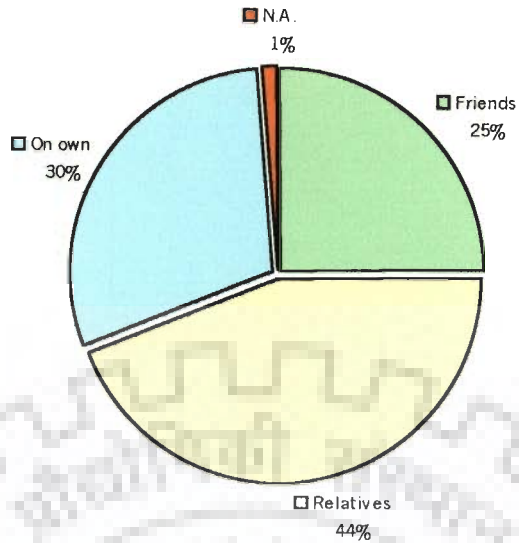
#### 4.13 ARRIVED WITH COMPANION

In India, as already mentioned, the people are more or less chained with several social ties. As a result, even the economically weaker segment, if they move from one place to other, they move together. In some cases, relatives or friends used to move together. In exceptional cases, people alone used to move from one place to other for survival. Having this knowledge in mind, the Investigator investigated their arrivals to the study area with or without companion, and the results are presented in Table 4.12 and Fig. 4.18. This table indicates that more than two-third of the migrants came to the city along with either friends or relatives, and about one-third of the migrants came to the city alone. In this variable too, the number of persons arrived to the city with either friends or relative are increasing along with increase in monthly income upto Rs. 2400 and then their representation started to observe the reverse trend. In case of persons who reached alone is also observed the similar kind of trend. It increased upto the monthly income limit of Rs. 3000, and then started to decrease. It is also distressing to note that about two-third of the persons irrespective of reached along with either relative or friends or reached alone confined in lower income categories.



*Table 4.12 : Arrived with Companion*

S. No.	Income per month	Arrived with Companion				Total	Percent (%)
		Friends	Relatives	On own	N.A.		
1	<900	5 (6.66)	13 (9.70)	17 (18.29)	1 (25.00)	36	12.00
2	900-1500	8 (10.66)	32 (23.88)	17 (18.29)	1 (25.00)	58	19.00
3	1500-2400	29 (38.68)	45 (33.58)	18 (19.35)	-	92	30.00
4	2400-3000	23 (30.68)	32 (23.88)	20 (21.50)	-	75	24.50
5	3000-4500	8 (10.66)	4 (2.98)	12 (12.90)	1 (25.00)	25	8.00
6	>4500	2 (2.66)	8 (5.98)	9 (9.67)	1 (25.00)	20	6.50
	<b>Total</b>	75 (100.00)	134 (100.00)	93 (100.00)	4 (100.00)	306	100.00
	<b>Percent(%)</b>	25.00	44.00	30.00	1.00	100.00	



**Income Group wise Arrived with Companion**

**FIG. 4.18 : ARRIVED WITH COMPANION**

Source: Primary Survey, September 2001

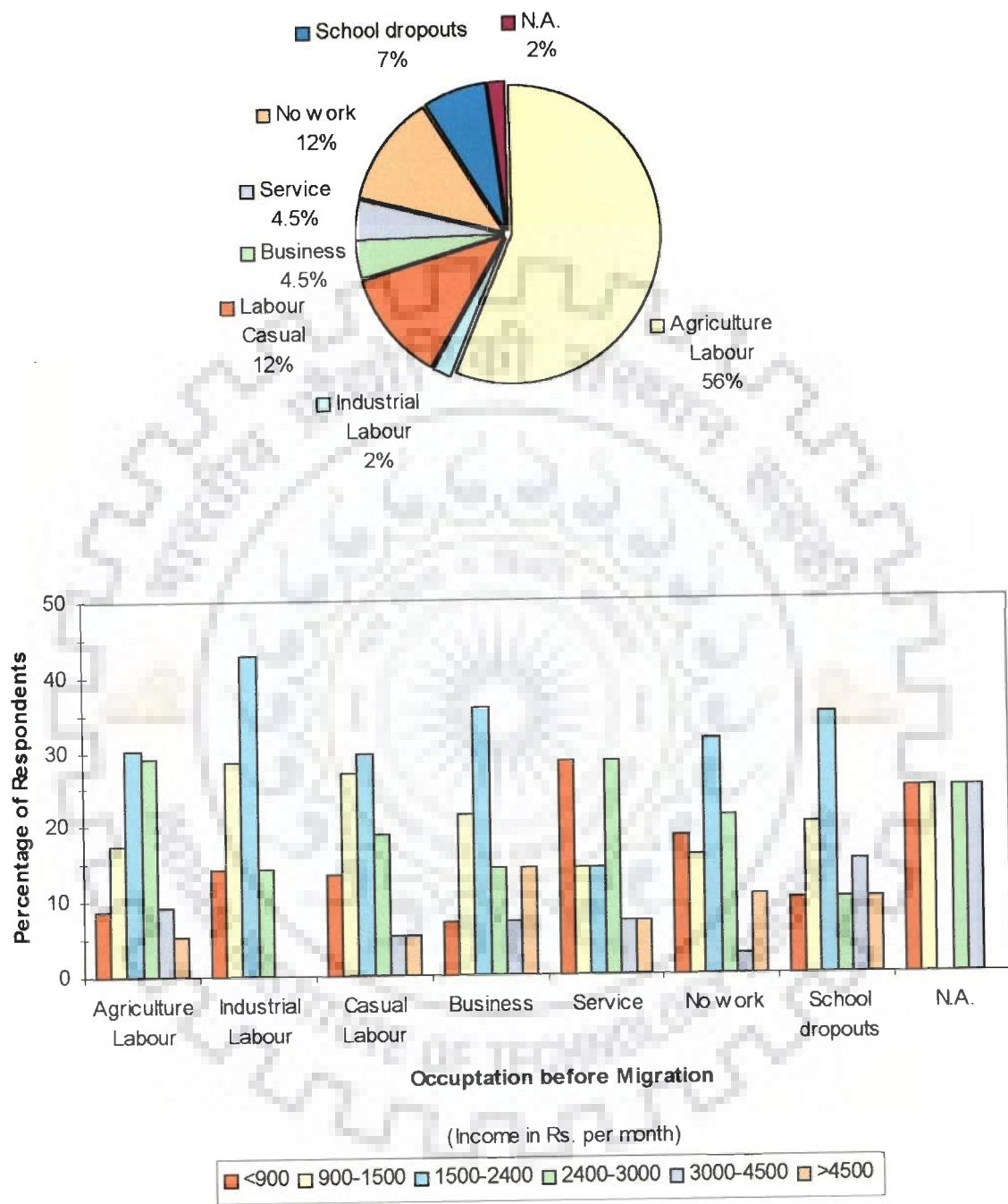
#### 4.14 OCCUPATION BEFORE MIGRATION

The Investigator wanted to know the occupational structure of the homeless before they migrated to the city, to understand the root cause of migration. In fact, in Indian Society, the rural system people are more or less chained with lot of social system, affection, affinity, etc. Under these circumstances, if the persons had little bit earning, which can satisfy their basic needs they would not have migrated. Having these knowledge in mind, the Investigator tried to find out the previous occupational structure of the migrants who presently reside in the study area, and the results are presented in Table 4.13 and Fig. 4.19. The table illustrates that about two-third of the migrants (61 per cent) confined in the lower income groups starting from the monthly income of Rs. < 900 to Rs. 2400 representing from all types of occupation, such as agriculture labour, industrial labour, casual labour, business, service, unemployed, school dropouts, etc. It is much distressing to note that more than half of the migrants (56 per cent) are doing agriculture and its allied activities in their native place. Followed by casual labour and absolutely unemployed persons represents 12 per cent each, school dropouts by 7 per cent, business and service classes by 4.5 per cent each, and industrial labour by 2 per cent.

It is out of interest, the Investigator discussed further with the migrants about their previous occupational structure and found that invariably all types of occupational structure, which they belonged suffered very much due to several factors, and even in some cases the relationship between the owners of the industries and the service classes is strained.

*Table 4.13 : Occupation before Migration*

<i>S. No.</i>	<i>Income per month</i>	<i>Occupation before Migration</i>								<i>Total</i>	<i>Percent (%)</i>
		<i>Agriculture Labour</i>	<i>Industrial Labour</i>	<i>Casual Labour</i>	<i>Business</i>	<i>Service</i>	<i>No work</i>	<i>School dropouts</i>	<i>N.A.</i>		
1	<900	15 (8.72)	1 (14.28)	5 (13.51)	1 (7.14)	4 (28.57)	7 (18.42)	2 (10)	1 (25.00)	36	12.00
2	900-1500	30 (17.44)	2 (28.59)	10 (27.04)	3 (21.42)	2 (14.28)	6 (15.78)	4 (20)	1 (25.00)	58	19.00
3	1500-2400	52 (30.23)	3 (42.85)	11 (29.74)	5 (35.74)	2 (14.28)	12 (31.57)	7 (35)		92	30.00
4	2400-3000	50 (29.06)	1 (14.28)	7 (18.91)	2 (14.28)	4 (28.57)	8 (21.05)	2 (10)	1 (25.00)	75	24.50
5	3000-4500	16 (9.30)	-	2 (5.40)	1 (7.14)	1 (7.15)	1 (2.63)	3 (15)	1 (25.00)	25	8.00
6	>4500	9 (5.25)	-	2 (5.40)	2 (14.28)	1 (7.15)	4 (10.55)	2 (10)		20	6.50
	<b>Total</b>	<b>172</b> <b>(100.00)</b>	<b>7</b> <b>(100.00)</b>	<b>37</b> <b>(100.00)</b>	<b>14</b> <b>(100.00)</b>	<b>14</b> <b>(100.00)</b>	<b>38</b> <b>(100.00)</b>	<b>20</b> <b>(100.00)</b>	<b>4</b> <b>(100.00)</b>	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>56.00</b>	<b>2.00</b>	<b>12.00</b>	<b>4.50</b>	<b>4.50</b>	<b>12.00</b>	<b>7.00</b>	<b>2.00</b>	<b>100.00</b>	



**Income Group wise Occupation before Migration**

**FIG. 4.19 : OCCUPATION BEFORE MIGRATION**

Source: Primary Survey, September 2001

#### 4.15 PROPERTY OWNERSHIP IN NATIVE PLACE

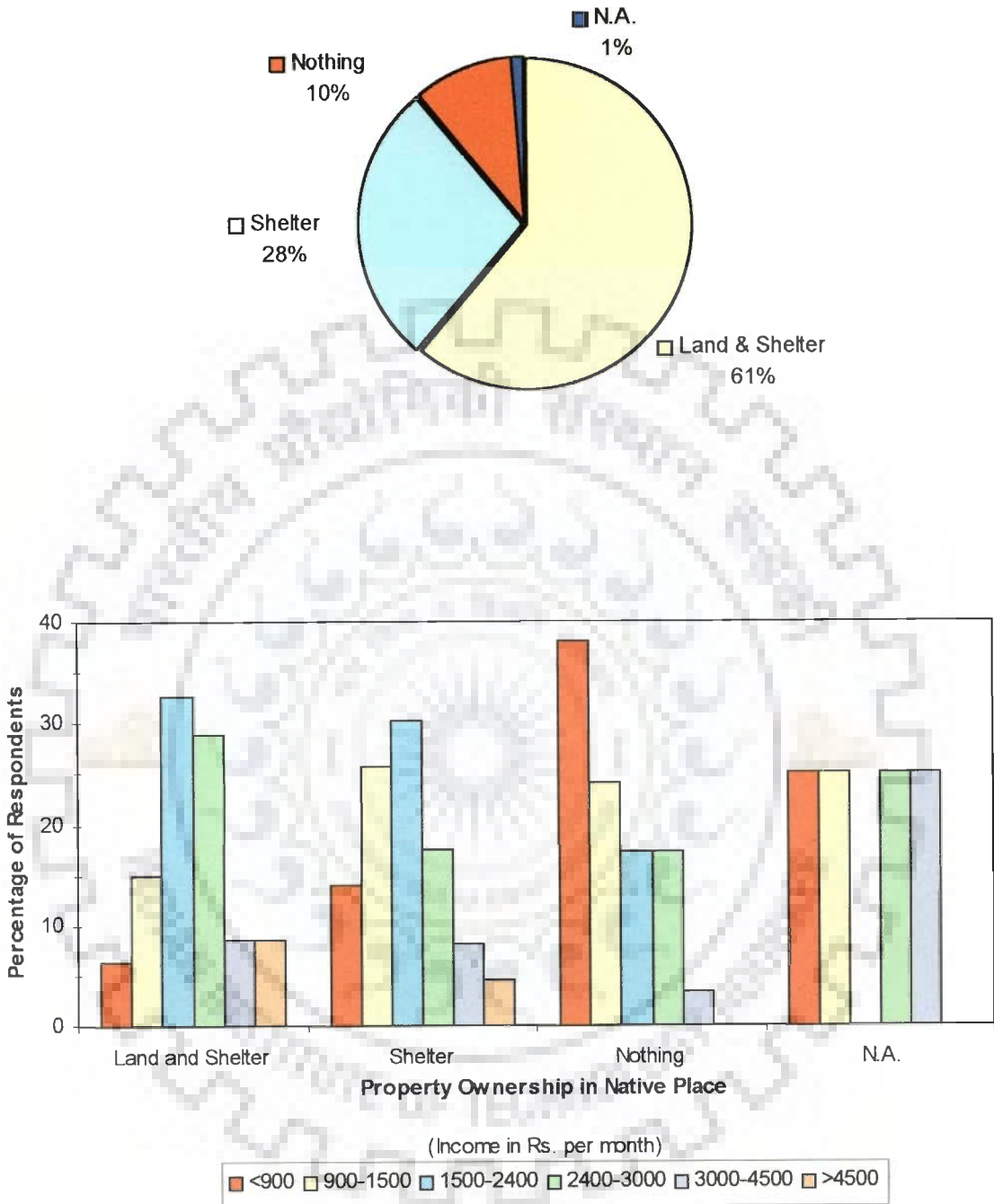
The homeless people of Delhi City may not be truly homeless as most of them have their own shelters in their native places. These people are not necessarily from the poorest rural families and apart from having houses in their native places, many of them have agriculture land too though the size of land is generally very small.

Though some people who had migrated have their own properties in their native places, they handed over the same to their kith and kin's, and migrated since the available property could not satisfy their basic needs. These persons even left their families along with them for social protection. These persons used to sent money to them for their survival from their own earnings by living as homeless. This shows the affinity, affection, etc., which these people have with their own kiths and kins, and also safeguard the property, which they have in their place. Having all these knowledge in mind, the Investigator investigated the number of migrated persons who have different types of properties in their native places, and the results are presented in Table 4.14 and Fig. 4.20. The table explains that about two-third (61 per cent) of the total persons are having land along with shelter, and about one-third (28 per cent) having only shelter in their native places. In both segments (shelter alone and shelter along with land) their accountability (number) is increasing along with increase in monthly income from Rs < 900 to Rs. 2400, and then started to observe the reverse trend i.e., from Rs. 2400 to > 4500. It is out of interest, the Investigator discussed the types of shelter and land, with them, and found that they never get much money from the

*Table 4.14 : Property Ownership in Native Place*

<i>S. No.</i>	<i>Income month per</i>	<i>Property Ownership in Native Place</i>				<i>Total</i>	<i>Percent(%)</i>
		<i>Land &amp; Shelter</i>	<i>Shelter</i>	<i>Nothing</i>	<i>N.A.</i>		
1	<900	12 (6.41)	12 (13.95)	11 (37.95)	1 (25.00)	36	12.00
2	900-1500	28 (14.97)	22 (25.58)	7 (24.13)	1 (25.00)	58	19.00
3	1500-2400	61 (32.65)	26 (30.23)	5 (17.24)	-	92	30.00
4	2400-3000	54 (28.87)	15 (17.44)	5 (17.24)	1 (25.00)	75	24.50
5	3000-4500	16 (8.55)	7 (8.15)	1 (3.44)	1 (25.00)	25	8.00
6	>4500	16 (8.55)	4 (4.65)	-	-	20	6.50
	<b>Total</b>	<b>187 (100.00)</b>	<b>86 (100.00)</b>	<b>29 (100.00)</b>	<b>4 (100.00)</b>	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>61.00</b>	<b>28.00</b>	<b>10.00</b>	<b>1.00</b>	<b>100.00</b>	





**Income Group wise Property Ownership in Native Place**

**FIG. 4.20 : PROPERTY OWNERSHIP IN NATIVE PLACE**

Source: Primary Survey, September 2001

land, and they are found only on namesake, and these people have to pay tax for the same from their own pocket. These also become a burden in addition to their own other socio-economic problems.

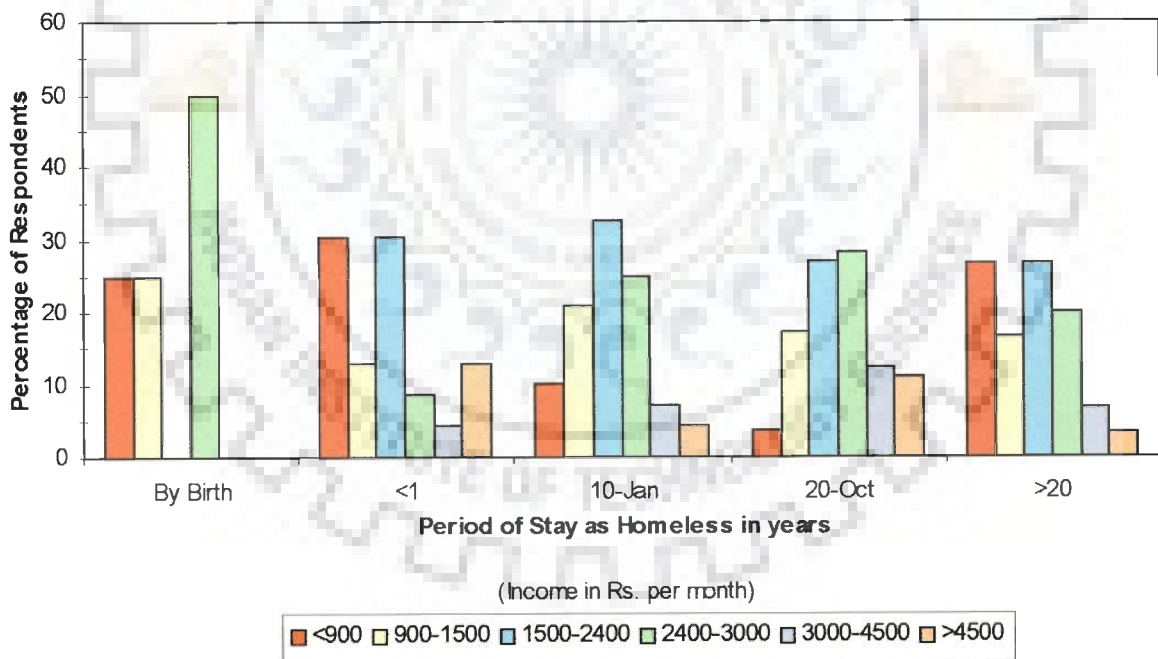
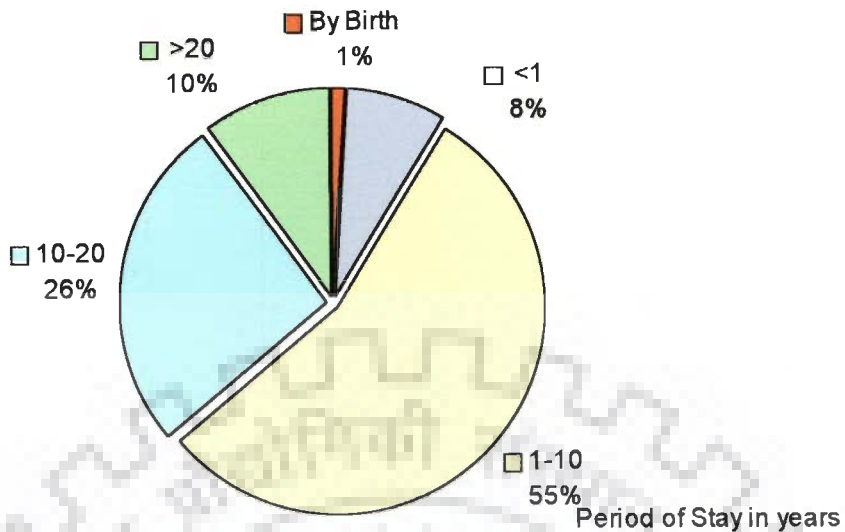
#### **4.16 PERIOD OF STAY AS HOMELESS**

Period of stay as homeless in the city is one of the most important variable, which decide the habits, lives, culture, etc., of the homeless persons of the city. In some cases, it has been observed that very few people try for shelter at least during the heavy monsoon and foggy winter seasons, which need little money to afford the same. Since most of the homeless persons family are in their native places, they used to send the most part of their earnings to them for their survival. In some cases, it is also observed that even though they have enough money for paying for night shelter, they never use that facility since they are habituated by staying on the footpath and other open spaces. In some cases, traditionally they live on the footpath and other open spaces they spend their whole life on footpath and other open spaces, they continue as it is since it becomes their tradition, customs and usages. Having these knowledge in mind, the Investigator tried to study the period of stay of the homeless among the survey samples, and the results are reported in Table 4.15 and Fig. 4.21. It has been observed from the table that long duration of stay in the city never increase their income, but their working ability more or less decide their income (c.r.f Table 4.18).

*Table 4.15 : Period of Stay as homeless*

*(period in years)*

S. No.	Income per month	Period of Stay					Total	Percent (%)
		By Birth	<1	1-10	10-20	>20		
1	<900	1 (25.00)	7 (30.43)	17 (10.11)	3 (3.70)	8 (26.66)	36	12.00
2	900-1500	1 (25.00)	3 (13.06)	35 (20.86)	14 (17.28)	5 (16.66)	58	19.00
3	1500-2400	-	7 (30.42)	55 (32.73)	22 (27.16)	8 (26.66)	92	30.00
4	2400-3000	1 (25.00)	2 (8.69)	43 (25.59)	23 (28.39)	6 (20.00)	75	24.50
5	3000-4500	1 (25.00)	1 (4.34)	11 (6.55)	10 (12.34)	2 (6.66)	25	8.00
6	>4500	-	3 (13.06)	7 (4.16)	9 (11.13)	1 (3.36)	20	6.50
	<b>Total</b>	4 (100.00)	23 (100.00)	168 (100.00)	81 (100.00)	30 (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>1.00</b>	<b>8.00</b>	<b>55.00</b>	<b>26.00</b>	<b>10.00</b>	<b>100.00</b>	



**Income Group wise Period of Stay**

**FIG. 4.21 : PERIOD OF STAY**

Source: Primary Survey, September 2001

This table also illustrates that more than half of the respondents (55 per cent) spent their lives on the footpath and other places for about 10 years. Little more than one-fifth of the respondents (26 per cent) spent their lives on footpath and other open spaces for about 10-20 years, and one-tenth of them (10 per cent) live as homeless for more than 20 years, and another a set of about one-tenth of the samples (8 per cent) are living about a year as homeless.

On one side, the population explosion is rampant, and economic growth is shrinking during the last 10 years, on the other. It leads to further aggravating the existing social economic evils in the system. Moreover, the people from the most backward states of India migrated mostly to Delhi city (the study area). It clearly shows that socio-economic evils pushed the people from the rural system to go out and they land up in the urban system during the last 10 years.

#### **4.17 PRESENT OCCUPATION**

Occupation is a very important parameter, which decide the functions of the system. In the developed countries, most of the persons employed in secondary and tertiary sectors of the economy, whereas very little persons engaged in the primary sectors of the economy. But in the developing and under developed economy, the trend is absolutely in reverse and most of the population engaged in primary sector of the economy. The homeless persons of the urban system too, occupation plays a very major role, which decides their income, expenditure, savings, etc. Having this knowledge in mind, the Investigator studied the occupation character of the homeless persons of the study area and classified on their basis of occupation, and grouped them into rickshaw puller,

labour, service, self employed, hawker, thela puller labour, rag picker, goods rickshaw puller, auto rickshaw driver, begger, and presented in Table 4.16 and Fig. 4.22. The table explains that more than one-fourth (26 per cent) of the persons engaged in rickshaw pulling activities, followed by one-fifth (20 per cent) in labour activities, 12 per cent in service, 14 per cent in self employed, 5 per cent hawker, 2 per cent thella pulling, 5 per cent goods rickshaw pulling, 6 per cent auto-rickshaw driving, 1 per cent rag picking and about one-tenth (9 per cent) is in begging. It also explain that more than half (53 per cent) of the population engaged in hard labour activities, such as, rickshaw pulling, labour activities, good-rickshaw pulling and thela pulling.

It has been also observed that more than half of the population (54.5 per cent) confined in the monthly income group of Rs. 1500 to 3000. In almost all types of occupation, the number of persons engaged are increased along with increase in income from Rs < 900 to 2400 and started to observe the reverse trend in increase in income from Rs. 2400 - Rs > 4500. It shows that more number of respondents from all occupation, groups confined in least income group categories.

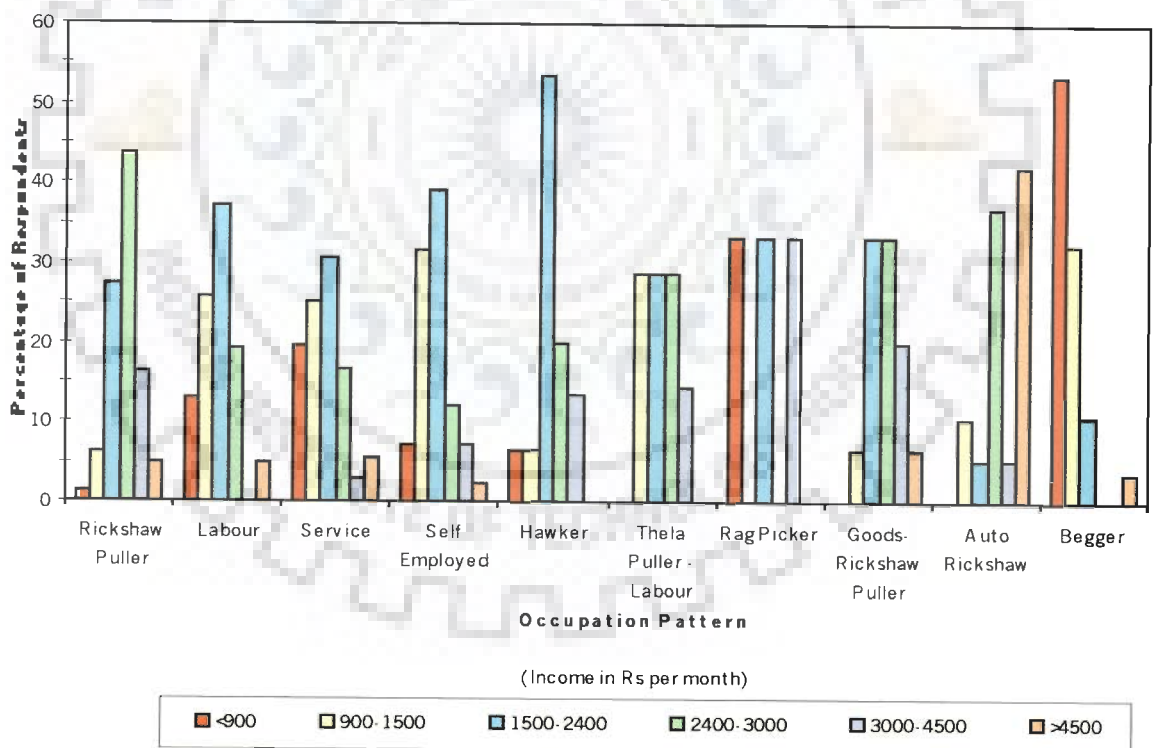
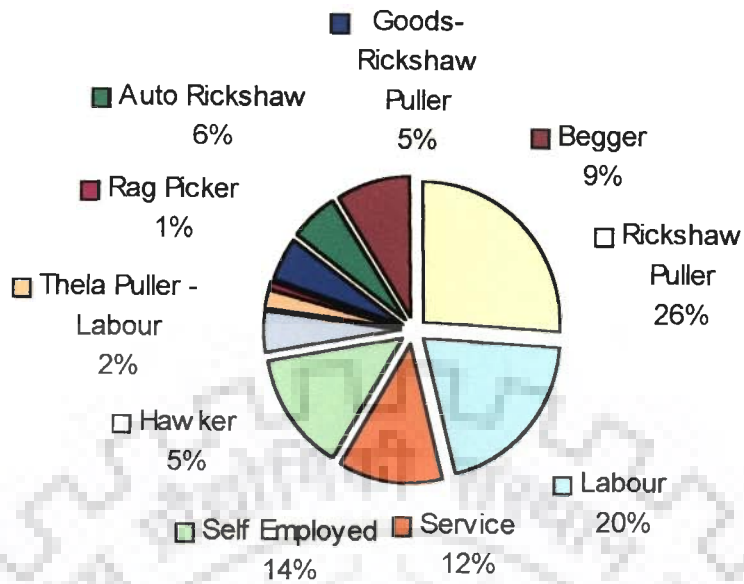
The Investigator has conducted further investigation to the respondents about their satisfaction of their occupation, and found that, by and large, they satisfied themselves by the current occupation (types of occupation), and very few opinioned that they would be happy if they are offered some kind of secured job.



**Table 4.16 : Present Occupation**

S. No.	Income per month	Occupation Pattern										Total	Percent (%)
		Rickshaw Puller	Labour	Service	Self Employed	Hawker	Thela Puller - Labour	Rag Picker	Goods-Rickshaw Puller	Auto Rickshaw	Begger		
1	<900	1 (1.25)	8 (12.90)	7 (19.44)	3 (7.33)	1 (6.66)	-	1 (33.33)	-	-	15 (53.57)	36	12.00
2	900-1500	5 (6.25)	16 (25.80)	9 (25.00)	13 (31.70)	1 (6.66)	2 (28.57)	-	1 (6.66)	2 (10.52)	9 (32.14)	58	19.00
3	1500-2400	22 (27.50)	23 (37.10)	11 (30.55)	16 (39.02)	8 (53.33)	2 (28.57)	1 (33.34)	5 (33.34)	1 (5.27)	3 (10.72)	92	30.00
4	2400-3000	35 (43.75)	12 (19.35)	6 (16.66)	5 (12.19)	3 (20.00)	2 (28.57)	-	5 (33.34)	7 (36.84)	-	75	24.50
5	3000-4500	13 (16.25)	-	1 (2.80)	3 (7.33)	2 (13.35)	1 (14.29)	1 (33.33)	3 (20.00)	1 (5.27)	-	25	8.00
6	>4500	4 (5.00)	3 (4.85)	2 (5.55)	1 (2.43)	-	-	-	1 (6.66)	8 (42.10)	1 (3.57)	20	6.50
	<b>Total</b>	<b>80</b> (100.00)	<b>62</b> (100.0)	<b>36</b> (100.0)	<b>41</b> (100.00)	<b>15</b> (100.0)	<b>7</b> (100.0)	<b>3</b> (100.00)	<b>15</b> (100.00)	<b>19</b> (100.00)	<b>28</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>26.00</b>	<b>20.00</b>	<b>12.00</b>	<b>14.00</b>	<b>5.00</b>	<b>2.00</b>	<b>1.00</b>	<b>5.00</b>	<b>6.00</b>	<b>9.00</b>	<b>100</b>	





**Income Group wise Occupation pattern**

**FIG. 4.22 : OCCUPATION PATTERN**

Source: Primary Survey, September 2001

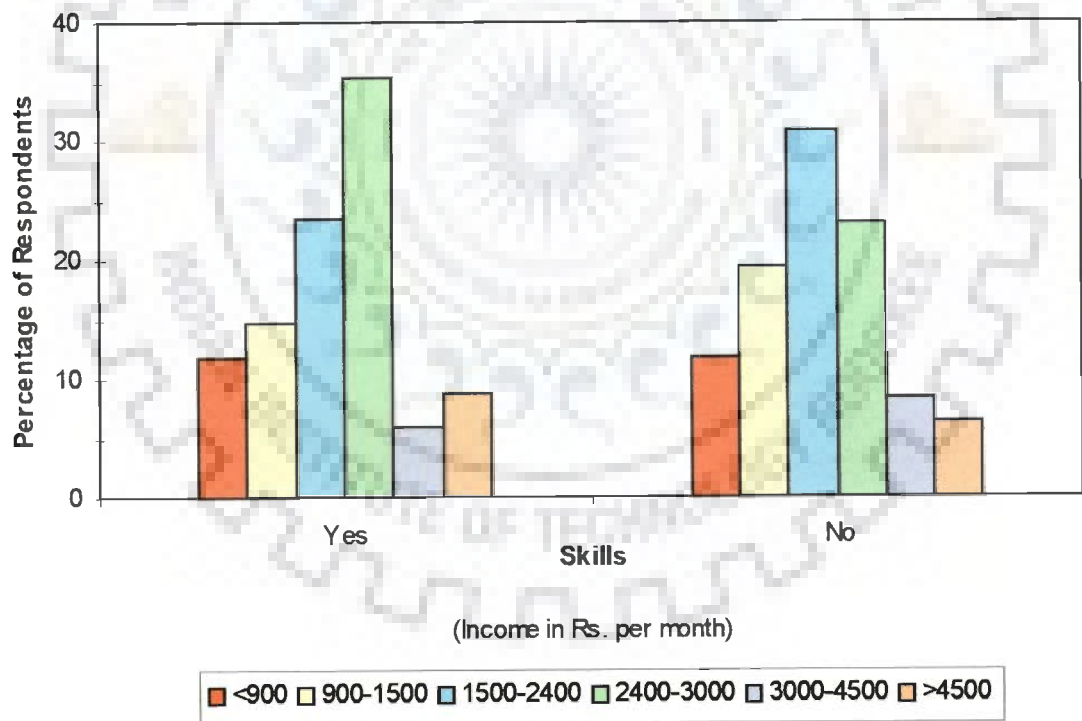
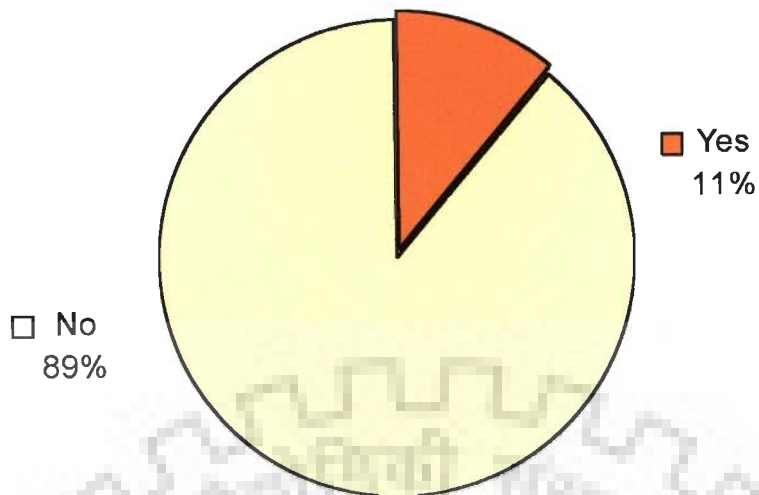
## 4.18 SKILLS

Skill is the most important parameter, which is very much essential for undertaking any kind of job. Skill may be obtained either through formal education or vocational training or through the particular work experience over the years. Since the homeless persons are also engaged in some skilled form of work, such as, cobbler's activities, carpentry activities, mason's work, etc. it needs little skill to perform in a better way, which yield little more income compare to other activities. Having this knowledge in mind, the Investigator studied the skill potentials of the homeless in the study area, and presented in Table 4.17 and Fig. 4.23. This table reveals that there are about ninth-tenth (89 per cent) of the homeless do not possess any kind of skill at all, and rest of them are having little skill pertaining to tailoring, driving, handicrafts, etc. Though one-tenth of the population is having little knowledge in tailoring, driving and handicrafts, they are also involve in unskilled activities due to non availability of job based on their skills. In Delhi City, surely skilled jobs are given to skilled persons based on surety, security, and influence. But unfortunately, this segment of the community does not possess either of these, so that they (skilled persons) are also forced to take up unskilled activities.

This table also reveals that the accountability of skill persons are increasing along with increase in monthly income upto Rs. 2400-3000, and started to observe reverse trend from monthly income Rs. 3000 onwards. It clearly shows that though some percentage of the respondents is having skills, their skills are not fully utilized in income earning activities.

*Table 4.17 : Skills*

<i>S. No.</i>	<i>Income per month</i>	<i>Skills</i>		<i>Total</i>	<i>Percent (%)</i>
		<i>Yes</i>	<i>No</i>		
1	<900	4 (11.76)	32 (11.76)	36	12.00
2	900-1500	5 (14.70)	53 (19.48)	58	19.00
3	1500-2400	8 (23.52)	84 (30.88)	92	30.00
4	2400-3000	12 (35.29)	63 (23.16)	75	24.50
5	3000-4500	2 (5.88)	23 (8.46)	25	8.00
6	>4500	3 (8.85)	17 (6.26)	20	6.50
	<b>Total</b>	34 (100.00)	272 (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>11.00</b>	<b>89.00</b>	<b>100.00</b>	



**Income Group wise Skills**

**FIG. 4.23 : SKILLS**

Source: Primary Survey, September 2001

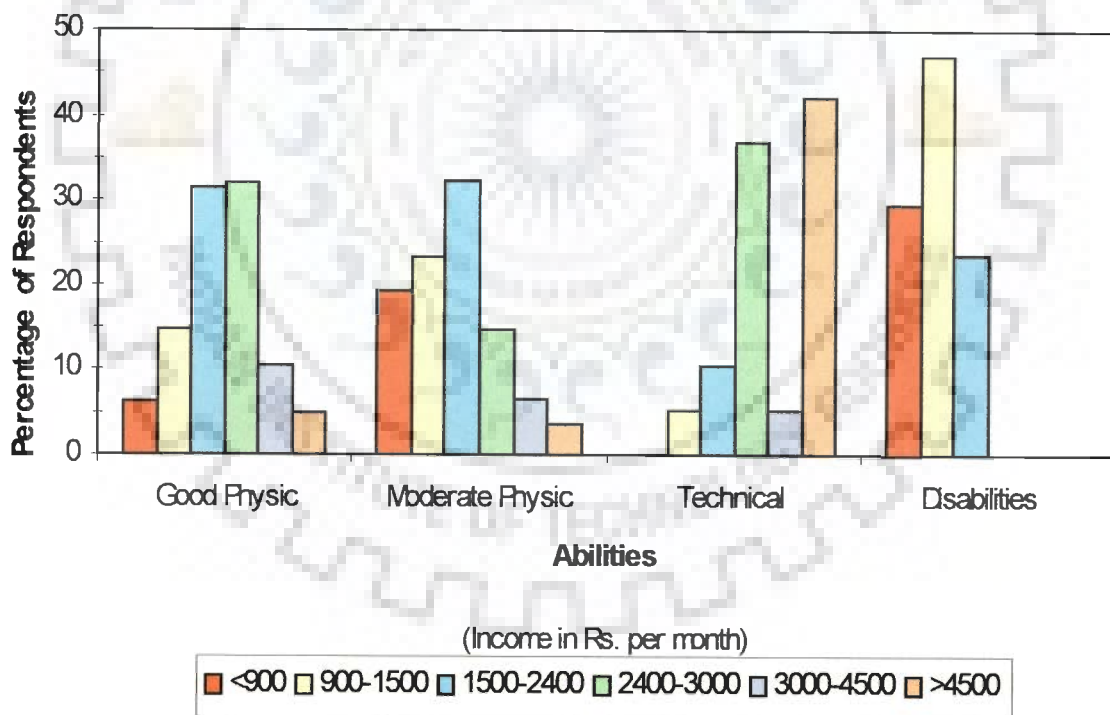
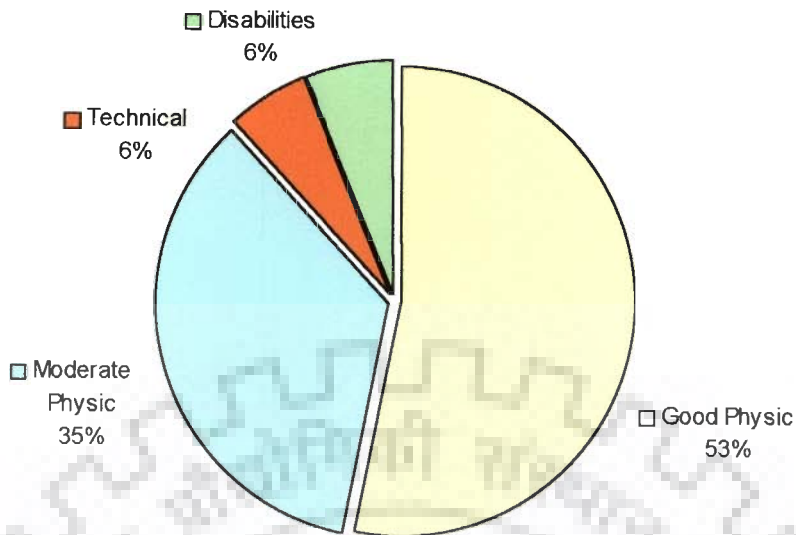
## 4.19 ABILITIES

Ability is the major important parameter, which decide the occupational function of the homeless. Generally, the well-developed physic persons engaged in hard labour activities such as, loading, unloading, rickshaw pulling, handcart pulling, etc. The person who has average physic used to engage in vendoring goods to the residential areas, commercial areas, domestic servants, washing utensils in roadside small restaurants, etc. The other segments that are physically disabled, more or less, engaged in begging, rag picking, etc. Having the knowledge of the importance of the abilities of persons in mind, the Investigator studied the abilities of the homeless persons who take up different kind of jobs, and the results are presented in Table 4.18 and Fig. 4.24. This table elucidates that little more than half of the homeless surveyed (53 per cent) are having good physic and engaged in hard labour activities. Little higher than one-third (35 per cent) are having moderate physic, and engaged mediocre activities, such as, service, self employed, and hawkers. Very meager persons (6 per cent) are engaged in driving (Auto rickshaw and tempo), and rest of them (6 per cent) are found disabled, and are mostly engaged in begging, and rag picking. It clearly shows that ability of the persons decide the occupational functions.

The table clearly explains that the persons who have little bit technical know- how earn little more income than the other group of persons. It can be easily observed from the accountability of increasing technical persons along with increase in income. In other groups (good and moderate physic) their

*Table 4.18 : Abilities*

<i>S. No.</i>	<i>Income per month</i>	<i>Abilities</i>				<i>Total</i>	<i>Percent (%)</i>
		<i>Good Physic</i>	<i>Moderate Physic</i>	<i>Technical</i>	<i>Disabilities</i>		
1	<900	10 (6.17)	21 (19.44)	-	5 (29.43)	36	12.00
2	900-1500	24 (14.82)	25 (23.14)	1 (5.26)	8 (47.05)	58	19.00
3	1500-2400	51 (31.48)	35 (32.40)	2 (10.54)	4 (23.52)	92	30.00
4	2400-3000	52 (32.09)	16 (14.84)	7 (36.84)	-	75	24.50
5	3000-4500	17 (10.49)	7 (6.48)	1 (5.26)	-	25	8.00
6	>4500	8 (4.95)	4 (3.70)	8 (42.10)	-	20	6.50
	<b>Total</b>	<b>162</b> (100.00)	<b>108</b> (100.00)	<b>19</b> (100.00)	<b>17</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>53.0</b>	<b>35.00</b>	<b>6.00</b>	<b>6.00</b>	<b>100.00</b>	



**Income Group wise Abilities**

**FIG. 4.24 : ABILITIES**

Source: Primary Survey, September 2001



numbers are increasing along with income to the certain extent, and started to observe reverse trend from monthly income of Rs. 2400 onwards.

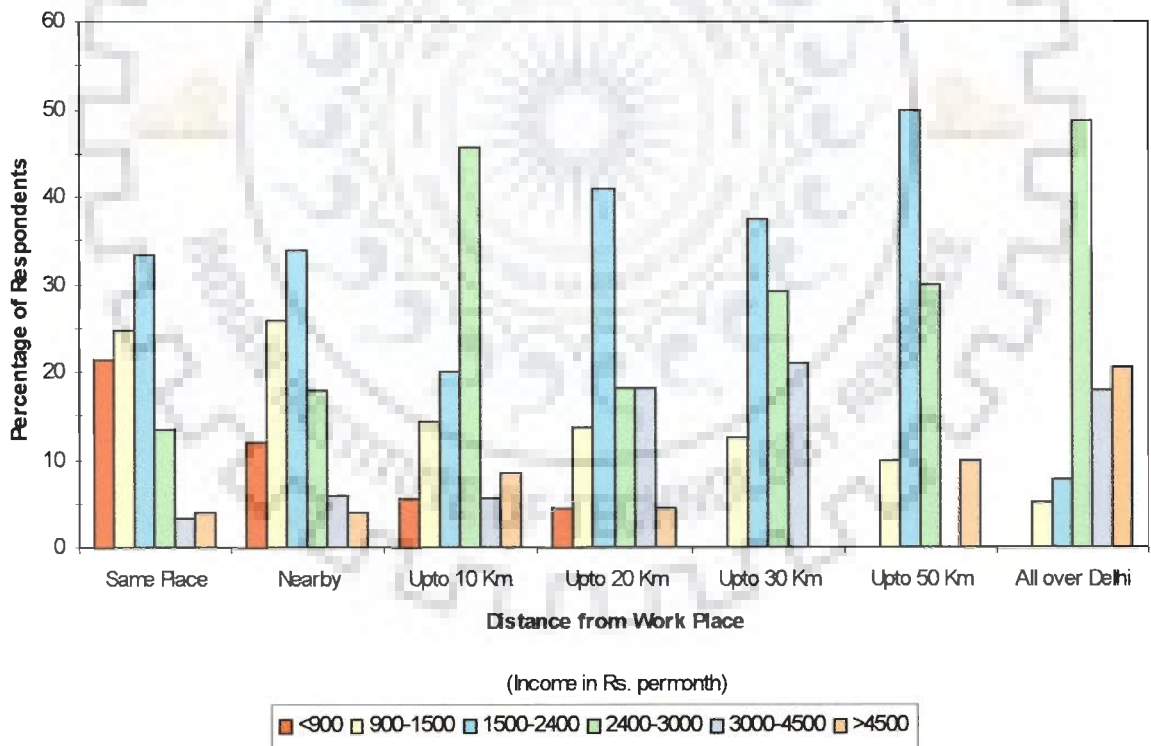
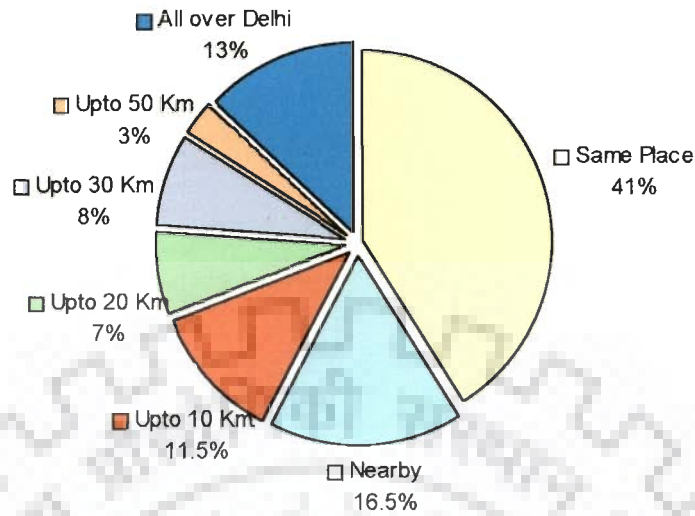
The Investigator had conducted thorough discussion once more after doing this analytical work to understand the reason for the same level of income earning among the good and moderate physic persons. It has been found that the persons having good physics undertake hard labour, and the moderate physic undertakes vending activities, and so on. Therefore, their income is also observed little closer to these categories

#### **4.20 DISTANCE FROM WORK PLACE**

Generally, the homeless find a place where their job activities are very much suitable for them. On this basis, the homeless try to settle nearer to their work place. Distance of work place is very much governed by the occupation in which homeless are involved. Having no fixed place of stay, unlike other urban poor, these people try to stay close to their work place, thus saving time and money required in commuting. Having these knowledge in mind, the Investigator studied the distance of work place of the sample respondents meticulously and grouped them into various segments, such as, same place, nearby, upto 10 Km, upto 20 Km, upto 30 Km, upto 50 Km and all over Delhi, on the basis of their traveling, and are presented in Table 4.19 and Fig. 4.25. The table illustrates that more than two-fifth (41 per cent) of the population stay in same place, followed by one-sixth (16.5 per cent) of the population stay in nearby places, more than one-tenth (11.5 per cent) of the population travel upto 10 Km, and rest of them scattered over in more than 10 km distances. It is also seen from the table

*Table 4.19 : Distance from Work Place*

S. No.	Income per month	Distance from Work Place						Total	Percent (%)	
		Same Place	Nearby	Upto 10 Km.	Upto 20 Km	Upto 30 Km	Upto 50 Km			All over Delhi
1	<900	27 (21.42)	6 (12.00)	2 (5.71)	1 (4.54)	-	-	-	36	12.00
2	900-1500	31 (24.60)	13 (26.00)	5 (14.28)	3 (13.63)	3 (12.5)	1 (10.0)	2 (5.12)	58	19.00
3	1500-2400	42 (33.33)	17 (34.00)	7 (20.00)	9 (40.93)	9 (37.5)	5 (50.0)	3 (7.69)	92	30.00
4	2400-3000	17 (13.49)	9 (18.00)	16 (45.72)	4 (18.18)	7 (29.16)	3 (30.0)	19 (48.72)	75	24.50
5	3000-4500	4 (3.19)	3 (6.00)	2 (5.72)	4 (18.18)	5 (20.84)	-	7 (17.95)	25	8.00
6	>4500	5 (3.97)	2 (4.00)	3 (8.57)	1 (4.54)	-	1 (10.0)	8 (20.52)	20	6.50
	<b>Total</b>	126 (100.00)	50 (100.00)	35 (100.00)	22 (100.00)	24 (100.00)	10 (100.00)	39 (100.00)	306	100.00
	<b>Percent (%)</b>	41.00	16.50	11.50	7.00	8.00	3.00	13.00	100.00	



**Income Group Wise Distance from Work Place**

**FIG. 4.25 : DISTANCE FROM WORK PLACE**

Source: Primary Survey, September 2001

that most of respondents (57.5 per cent), whose income is ranging from Rs. <900 to 2400, are residing in the same places of occupation and nearby places of occupations. It has been observed that increase in distance of work place never increase the monthly income. It has also been observed that there is a strong linkage among the location-earning-shelter and it is found that homeless try to stay as close as possible nearer to their work place to protect their access to income earning opportunities by being the first in market since they have no permanent job, and also facing stiff competition.

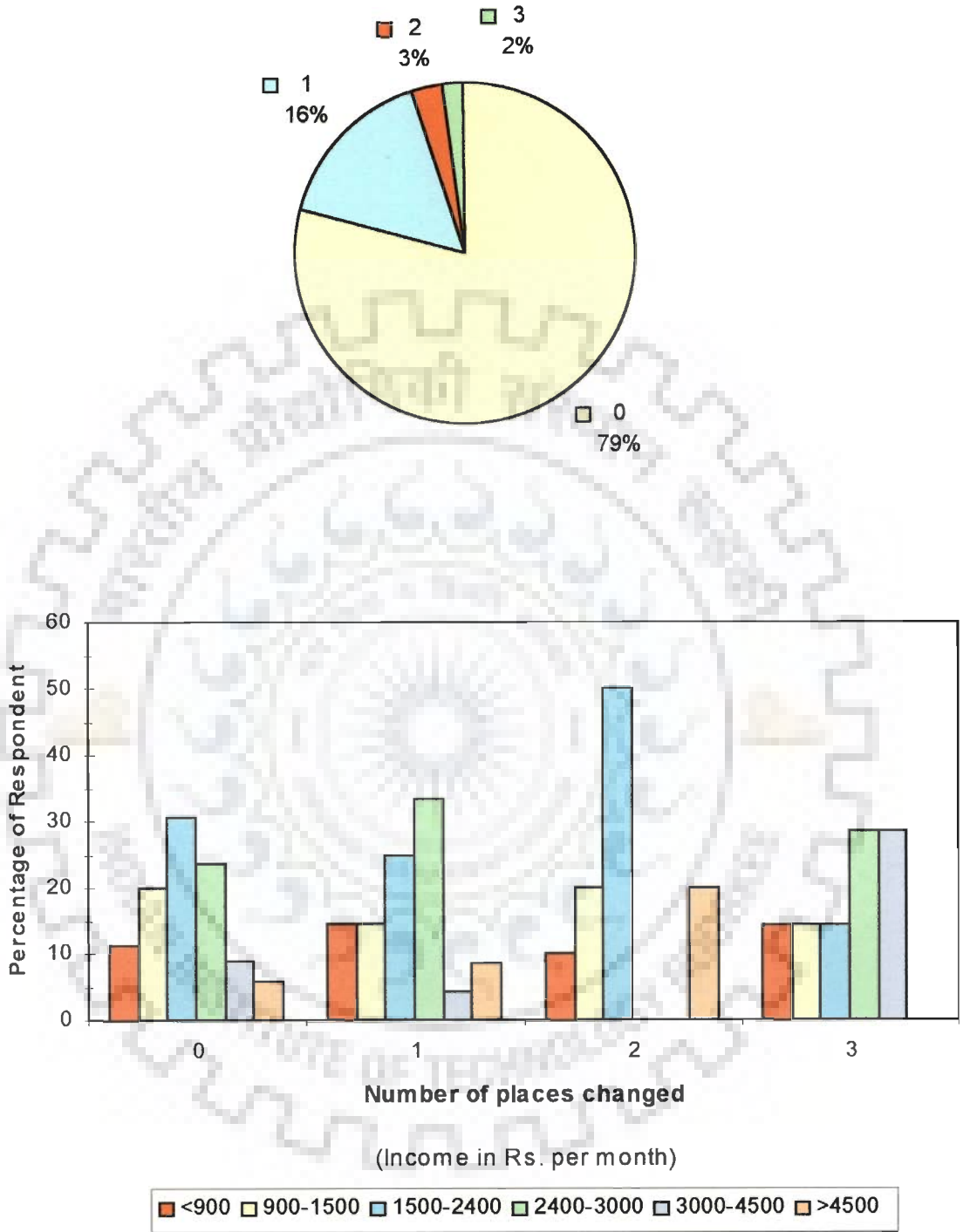
#### **4.21 NUMBER OF PLACES CHANGED**

Few homeless persons of the study area tend to shift their places often due to several factors. In fact, when they arrive in the city, most of them arrive either along with friend or relatives and stay along with them for few months or few years to get acclimatise the city. Once they get much acclimation in the city, then they start to move from one place to other due to various reasons, such as, finding better opportunities for employment in other locations within the city, finding better infrastructure facilities to spent their lives on the pavement in other places of the city, etc. Having this knowledge in mind, the Investigator conducted thorough investigation. At the outset, the respondents are grouped into groups, such as, persons who sifted their places and persons who do not shift the places at all. Further, the person who shifted their places are classified into three groups by the number of times shifted, such as, once, twice, and thrice in their lives, and are incorporated in accordance with their income group categories for analysis. The results are presented in Table 4.20 and Fig. 4.26. The table reveals that

*Table 4.20: Number of Places Changed*

S. No.	Income per month	Number of Places Changed					Grand total 1+5	Percent (%)
		1	2	3	4	5		
		0	1	2	3	Total 2+3+4		
1	<900	27 (11.20)	7 (14.58)	1 (10.00)	1 (14.28)	9 (13.84)	36	12.00
2	900-1500	48 (19.91)	7 (14.58)	2 (20.00)	1 (14.28)	10 (15.38)	58	19.00
3	1500-2400	74 (30.70)	12 (25.00)	5 (50.00)	1 (14.28)	18 (27.69)	92	30.00
4	2400-3000	57 (23.65)	16 (33.33)	-	2 (28.58)	18 (27.69)	75	24.50
5	3000-4500	21 (8.74)	2 (4.16)	-	2 (28.58)	4 (6.15)	25	8.00
6	>4500	14 (5.80)	4 (8.35)	2 (20.00)	-	6 (9.25)	20	6.50
	<b>Total</b>	<b>241</b> (100.00)	<b>48</b> {73.86} (100.00)	<b>10</b> {15.38} (100.00)	<b>7</b> {10.76} (100.00)	<b>65</b> {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>79.00</b>	<b>16.00</b>	<b>3.00</b>	<b>2.00</b>	<b>100.00</b>	<b>100.00</b>	

Figure in {...} denotes percentage to be total of Column No. 5



**Income Group wise Number of Places Changed**

**FIG. 4.26 : NUMBER OF PLACES CHANGED**

Source: Primary Survey, September 2001

about four-fifth of the respondents (79 per cent) never shift their places at all. Of the total persons shifted (65 per cent), about three-fourth of them (73.68 per cent) shifted only once in their life within the city. Followed by about one -sixth of them (15.38 per cent) shifted twice, and rest of them (10.76 per cent) shifted thrice.

The table also reveals that the respondents confined in both groups are (persons never shifted and the persons who shifted) found increasing along with increase in income groups to the certain extent, i.e., monthly income upto Rs. 1501-2400, and then started to observe the reverse trend. An almost similar observation is also found among the persons who shifted in different times, i.e., once, twice and thrice within the city.

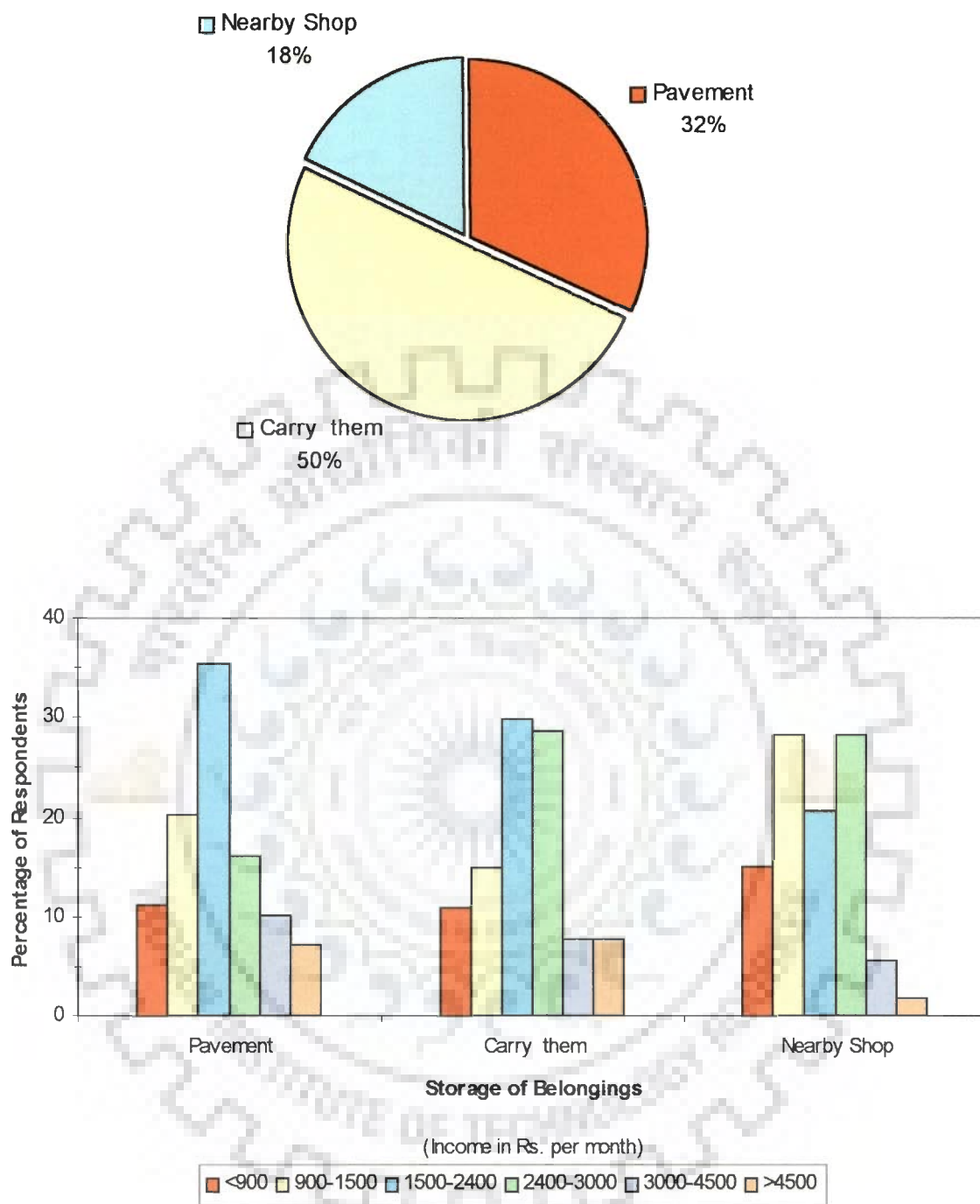
#### **4.22 STORAGE OF BELONGINGS**

Generally, the homeless persons do not have much goods to store. Whatever they have they used to either carry along with them or hand over the same to others who are known to them and not going for job activities because they do not have storage facilities. Another factor is that usually nobody steal their belongings. Whereas, stray dogs used to spoil their belongings since those items are kept open on the pavements, and other open spaces where they live. In some cases, the Investigator observed that they used to keep their belongings on the pavement, nearby shops, etc. Having these knowledge in mind, the Investigator analysed their storage problems, and the results are presented in Table 4.21 and Fig. 4.27. The table explains that half of the homeless persons (50 per cent) used to carry their belongings along with them while even go for



*Table 4.21 : Storage of Belongings*

<i>S. No.</i>	<i>Income per month</i>	<i>Storage of Belongings</i>			<i>Total</i>	<i>Percent (%)</i>
		<i>Pavement</i>	<i>Carry them</i>	<i>Nearby Shop</i>		
1	<900	11 (11.11)	17 (11.03)	8 (15.09)	36	12.00
2	900-1500	20 (20.20)	23 (14.93)	15 (28.30)	58	19.00
3	1500-2400	35 (35.35)	46 (29.88)	11 (20.77)	92	30.00
4	2400-3000	16 (16.16)	44 (28.58)	15 (28.30)	75	24.50
5	3000-4500	10 (10.10)	12 (7.79)	3 (5.66)	25	8.00
6	>4500	7 (7.08)	12 (7.79)	1 (1.88)	20	6.50
	<b>Total</b>	99 (100.00)	154 (100.00)	53 (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>32.00</b>	<b>50.00</b>	<b>18.00</b>	<b>100.00</b>	



**Income Group wise Storage of Belongings**

**FIG. 4.27 : STORAGE OF BELONGINGS**

Source: Primary Survey, September 2001

their routine job. About one-third (32 per cent) of the homeless keep their belongings on the pavements by putting them in iron boxes, and chain them along with iron railing of the pavement for protection. Rest of them keep their belongings in the nearby shops may be because they work for them, or have been in acquaintance with the shop keepers being in the same place for a long duration.

It has been further observed from the table that there are about two-third (61 per cent) of the homeless irrespective of either carrying their belongings while they go for work or keeping on the pavement or keeping in nearby shops confined in the low income group categories, and their numbers are increased along with monthly income upto Rs. 2400 – Rs 3000 and then started to observe the reverse trend.

It is out of interest, the Investigator discussed with the respondents about the types of belongings which they possess, and found that they generally have one or two clothes, a blanket and one or two utensils along with stoves.

#### **4.23 MODE OF FOOD PROCUREMENT**

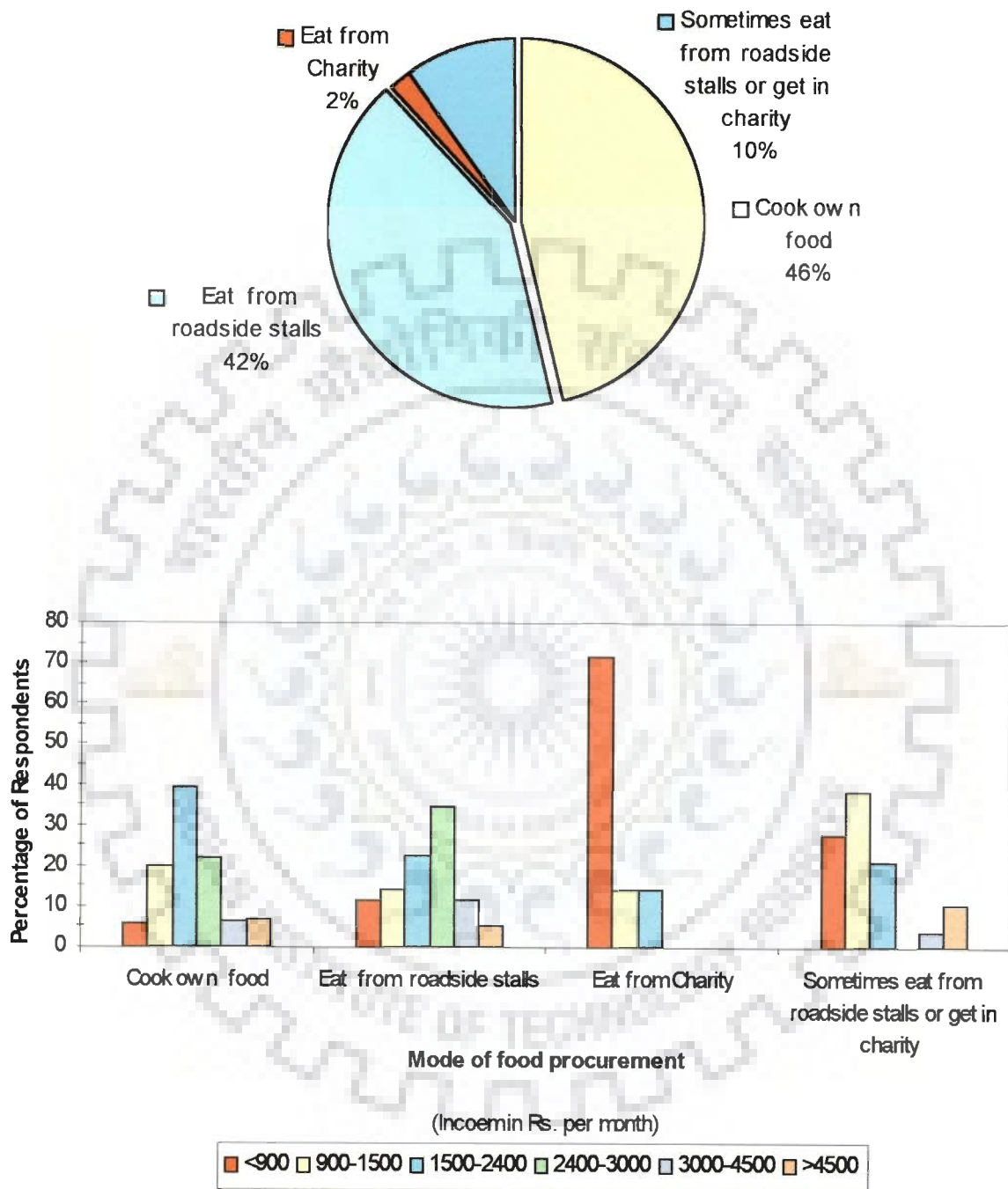
Food is one of the most important parameter, which is very much essential for the survival of animate resources including human beings. Food habit system used to tend to change in accordance with income, standard of living, job, climate, culture, etc. Generally, the labour class persons used to have very hard stuffs, while the service class used to have very light food. But, among the homeless, this trend cannot be observed since their life, aspirations, etc., are absolutely different from the aforesaid classes. These homeless persons

generally have what ever comes on their ways. In some cases, they used to cook but not three times meals per day. Their food habits are more or less decided by their own jobs, distance of travelling, and availability of cheaper food at their job premises. Having this knowledge about their food habits in mind, the Investigator studied the mode of food procurement of the homeless of the study area and the results are presented in Table 4.22 and Fig. 4.28. The table reveals that less than half of the surveyed population (46 per cent) cooks their own food. Rest of them take food either from road side food stalls, which are functioning besides the road, open spaces, etc., on temporary basis usually for just few hours. A roadside tea stall is also a common sight in and around the pavement dwelling areas.

It is interesting to note that a meager per cent (3 per cent) of the sample respondents take their food from the charity organisations, and few persons (10 per cent) sparingly cook their own food. It is also observed that the number of people cook their own food is increasing along with increase in monthly income from Rs. <900 to Rs. 2400, and then started to observe the reverse trend. Similar trend is also observed among the people who eat from outside. It is also observed that the lower income group persons more or less prefer cooking their own food since it may not be possible for them to take food from out side.

*Table 4.22: Mode of food Procurement*

<i>S. No.</i>	<i>Income per month</i>	<i>Mode of food Procurement</i>				<i>Total</i>	<i>Percent (%)</i>
		<i>Cook own food</i>	<i>Eat from roadside stalls</i>	<i>Eat from Charity</i>	<i>Sometimes eat from roadside stalls or get in charity</i>		
1	<900	8 (5.63)	15 (11.73)	5 (71.44)	8 (27.58)	36	12.00
2	900-1500	28 (19.71)	18 (14.06)	1 (14.28)	11 (37.93)	58	19.00
3	1500-2400	56 (39.46)	29 (22.65)	1 (14.28)	6 (20.68)	92	30.00
4	2400-3000	31 (21.83)	44 (34.37)	-	-	75	24.50
5	3000-4500	9 (6.33)	15 (11.73)	-	1 (3.47)	25	8.00
6	>4500	10 (7.04)	7 (5.46)	-	3 (10.34)	20	6.50
	<b>Total</b>	142 (100.00)	128 (100.00)	7 (100.00)	29 (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	46.00	42.00	2.00	10.00	100.00	



**Income Group wise Mode of Food Procurement**

**FIG. 4.28 : MODE OF FOOD PROCUREMENT**

Source: Primary Survey, September 2001

## 4.24 FUEL USED FOR COOKING

Fuel wood is one of the most important energy sources among the lower income group categories. Since these persons do not have either ration card, or permanent address to stay, these persons are unable to procure L.P.G. (the cheapest form of fuel, which is widely used for cooking invariably in all the cross section of the society). Therefore, they are forced to collect either kerosene or fuel wood for cooking their own food. Having these knowledge in mind, the Investigator investigated the types of fuel used for cooking among the surveyed samples, and the results are presented in Table 4.23 and Fig. 4.29. The table explains that more than four-fifth (81 per cent) of the total cooking persons, i.e., 147, (c.r.f. Table 4.22), are using kerosene for cooking, and rest of them (19 per cent) are using fuel wood for cooking.

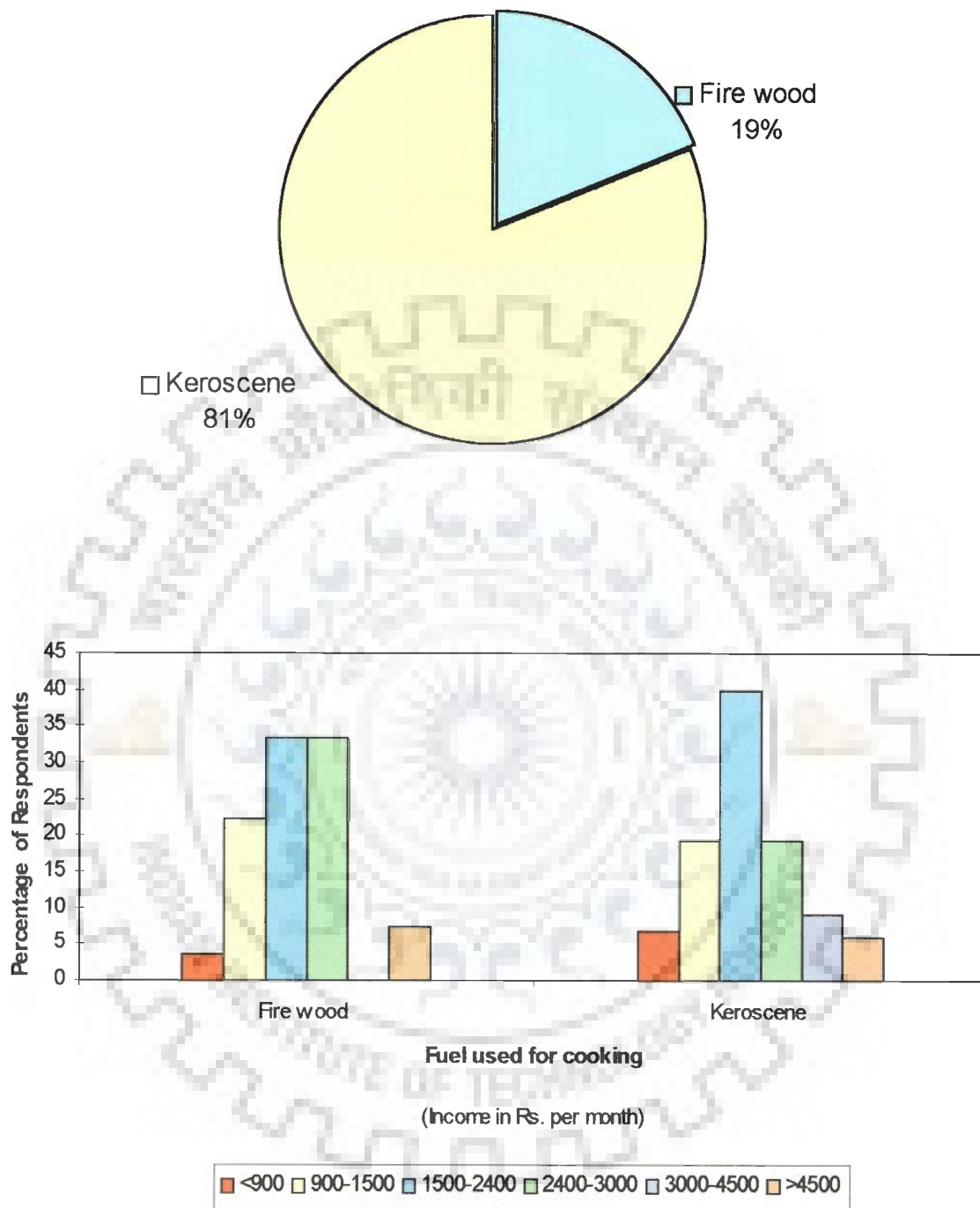
In fact, the Government of India has made some restrictions on sale of kerosene in the open market. Only the ration cardholders are allowed to collect kerosene from the co-operatives of Government owned sales depot. But these segment of the society used to collect kerosene from the black market where the price is little higher than the government sales depot, since it is very much essential for cooking their own food.

It is also distressing to note that the representation of members in different income groups are increasing along with increase in income up to Rs. 2400, in both cases (using fuel woods and kerosene), and then started to observe the reverse trend.

*Table 4.23 : Fuel used for cooking*

<i>S. No.</i>	<i>Income per month</i>	<i>Fuel used for cooking</i>		<i>Total</i>	<i>Percent (%)</i>
		<i>Fire wood</i>	<i>Keroscene</i>		
1	<900	1 (3.70)	7 (6.66)	8	6.00
2	900-1500	6 (22.22)	22 (19.16)	28	20.00
3	1500-2400	9 (33.34)	47 (40)	56	39.00
4	2400-3000	9 (33.34)	22 (19.16)	31	22.00
5	3000-4500	-	9 (9.16)	9	6.00
6	>4500	2 (7.40)	8 (5.86)	10	7.00
	<b>Total</b>	27 (100.00)	115 (100.00)	142	100.00
	<b>Percent (%)</b>	19.00	81.00	100.00	





**Income Group wise Fuel used for cooking**

**FIG. 4.29 : FUEL USED FOR COOKING**

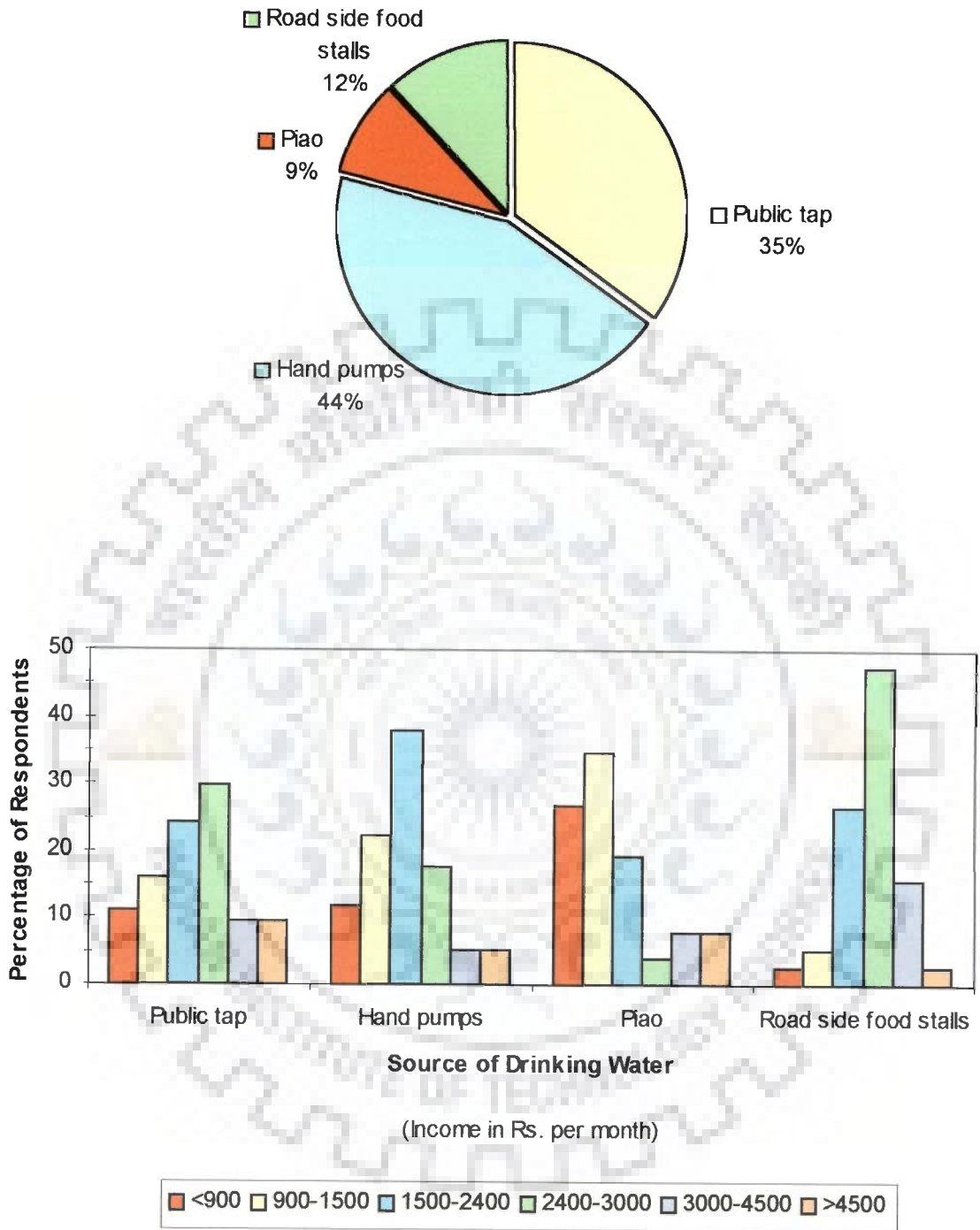
Source: Primary Survey, September 2001

## 4.25 SOURCE OF DRINKING WATER

Drinking water supply is one of the most important parameters among the basic needs since drinking water is considered as equivalent to blood in the human immune system. Nothing can be done without drinking water. It is painful to note that this segment of the society (homeless) has to suffer and fight in the street even for getting adequate quantity of drinking water. Often, these segment find more difficulties to fetch water, but these problem are aggravated during the summer season, when the government itself is unable to provide the required quantity of water to the tariff payees. As a result, encounter between the homeless and the rest of the lower income group (Economically Weaker Section) category are common in the system. Having this knowledge in mind, the Investigator has studied the sources of drinking water for the homeless and the results are presented in Table 4.24 and Fig. 4.30. The table explains that about nine-tenth of the population (88 per cent) depends on public stand posts, which include public tap (35 per cent), hand pump (44 per cent) and piao\* (9 per cent). Little more than one-tenth of the population (12 per cent) depend on food stalls, which are directly set up on pavement from where they have their food. It is also observed that the members belonging from almost all groups (public usages, and piao) are increasing along with monthly income from Rs. < 900 to 3000 and then started to observe the reserve trend. It clearly shows that almost all the sample respondents are using free drinking water supply facilities.

*Table 4.24: Source of Drinking Water*

S. No.	Income per month	Source of Drinking Water				Total	Percent (%)
		Public tap	Hand pumps	Piao	Road side food stalls		
1	<900	12 (11.21)	16 (11.85)	7 (26.92)	1 (2.63)	36	12.00
2	900-1500	17 (15.88)	30 (22.22)	9 (34.61)	2 (5.26)	58	19.00
3	1500-2400	26 (24.29)	51 (37.79)	5 (19.23)	10 (26.34)	92	30.00
4	2400-3000	32 (29.90)	24 (17.78)	1 (3.86)	18 (47.36)	75	24.50
5	3000-4500	10 (9.36)	7 (5.18)	2 (7.69)	6 (15.78)	25	8.00
6	>4500	10 (9.36)	7 (5.18)	2 (7.69)	1 (2.63)	20	6.50
	<b>Total</b>	<b>107</b> (100.00)	<b>135</b> (100.00)	<b>26</b> (100.00)	<b>38</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>35.00</b>	<b>44.00</b>	<b>9.00</b>	<b>12.00</b>	<b>100.00</b>	



**Income Group wise Source of Drinking Water**

**FIG. 4.30 : SOURCES OF DRINKING WATER**

Source: Primary Survey, September 2001

## 4.26 PLACE OF DEFECATION

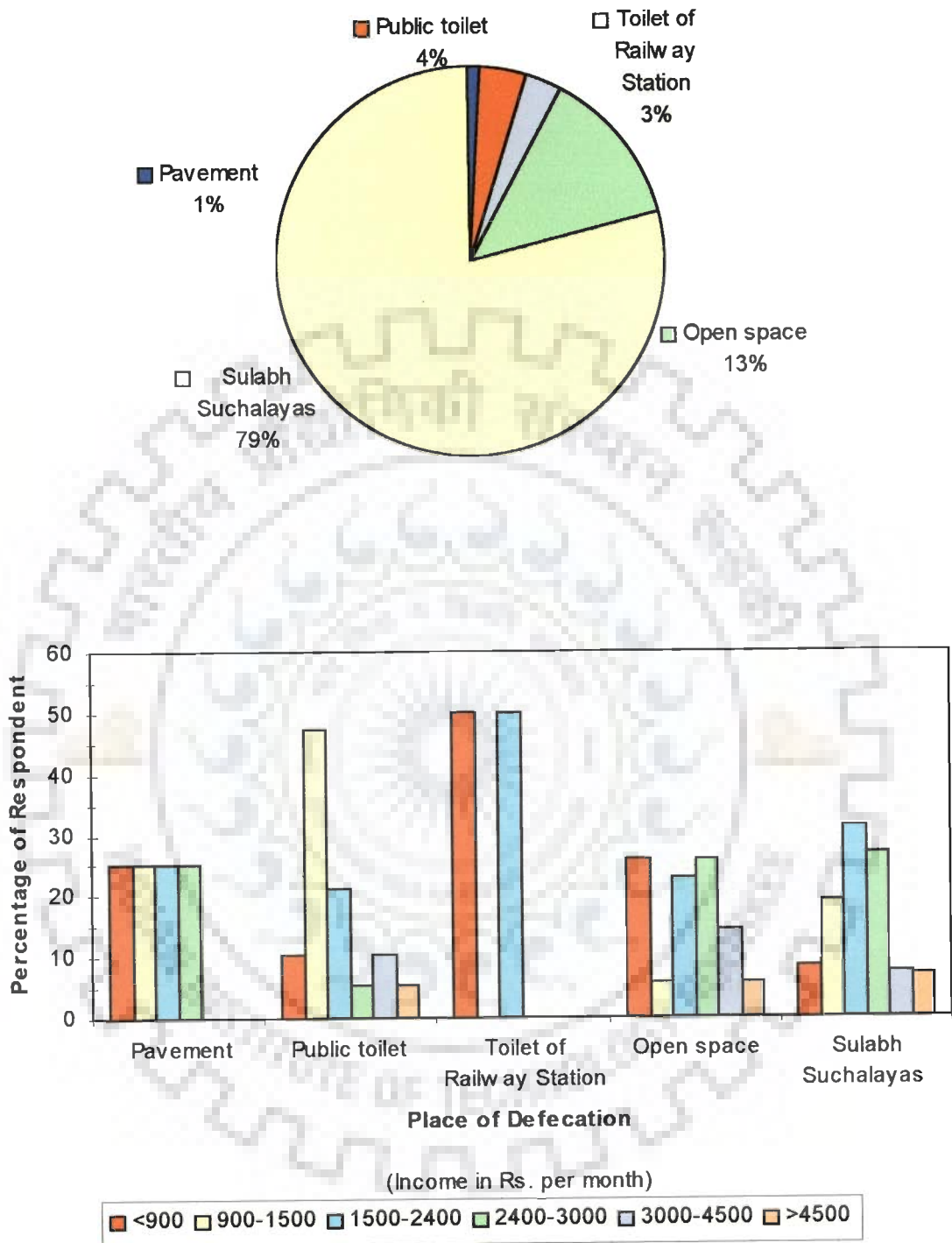
Lack of adequate sanitation can be responsible for severe health problems, such as, cholera, dysentery, typhoid, para typhoid, infectious hepatitis and many other diseases caused by worms. There are more than 50 infectious diseases can be transferred from a diseased person to a healthy one via a direct or indirect excreta route. Lack of adequate public sanitation facilities also creates unique problems to women. Women and adolescent girls usually go out early in the morning to go to the toilet. However, if there are no facilities available, they are often forced to wait until dark for privacy and are often even unable to clean at all. Lack of adequate place for defecation is responsible for several health problems among the homeless.

The Investigator studied the place of defecation among the homeless, and presented the results in Table 4.25 and Fig. 4.31. This table reveals that about four-fifth of the respondents (79 per cent) use Sulabh Suchalayas, about one-tenth of them (9 per cent) use public toilets, which include railway toilets, and another segment having number of little more than one-tenth (12 per cent) use open spaces for this purpose.

It has been observed that even the people having good income compare to rest of the income groups, they prefer open spaces due to several factors, such as, don't want to pay Rs. 2/- per head in Sulabh Suchalaya (sulabh suchalaya collects Rs. 2/- per head for these facilities), no strict enforcement of law and order, no prohibition, etc., in the urban system, in this regard.

*Table 4.25: Place of Defecation*

S. No.	Income per month	Place of Defecation					Total	Percent (%)
		Pavement	Public toilet	Toilet of Railway Station	Open space	Sulabh Suchalayyas		
1	<900	1 (25.00)	1 (7.69)	4 (50.00)	10 (24.39)	20 (8.33)	36	12.00
2	900-1500	1 (25.00)	5 (38.48)	-	6 (14.63)	46 (19.16)	58	19.00
3	1500-2400	1 (25.00)	4 (30.76)	4 (50.00)	8 (19.51)	75 (31.25)	92	30.00
4	2400-3000	1 (25.00)	1 (7.69)	-	9 (21.95)	64 (26.68)	75	24.50
5	3000-4500	-	1 (7.69)	-	6 (14.65)	18 (7.5)	25	8.00
6	>4500	-	1 (7.69)	-	2 (4.87)	17 (7.08)	20	6.50
	<b>Total</b>	<b>4</b> (100.00)	<b>13</b> (100.00)	<b>8</b> (100.00)	<b>41</b> (100.00)	<b>240</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>1.00</b>	<b>4.00</b>	<b>3.00</b>	<b>13.00</b>	<b>79.00</b>	<b>100.00</b>	



**Income Group wise Place of Defecation**

**FIG. 4.31 : PLACE OF DEFECACTION**

Source: Primary Survey, September 2001

## 4.27 PLACE OF BATHING

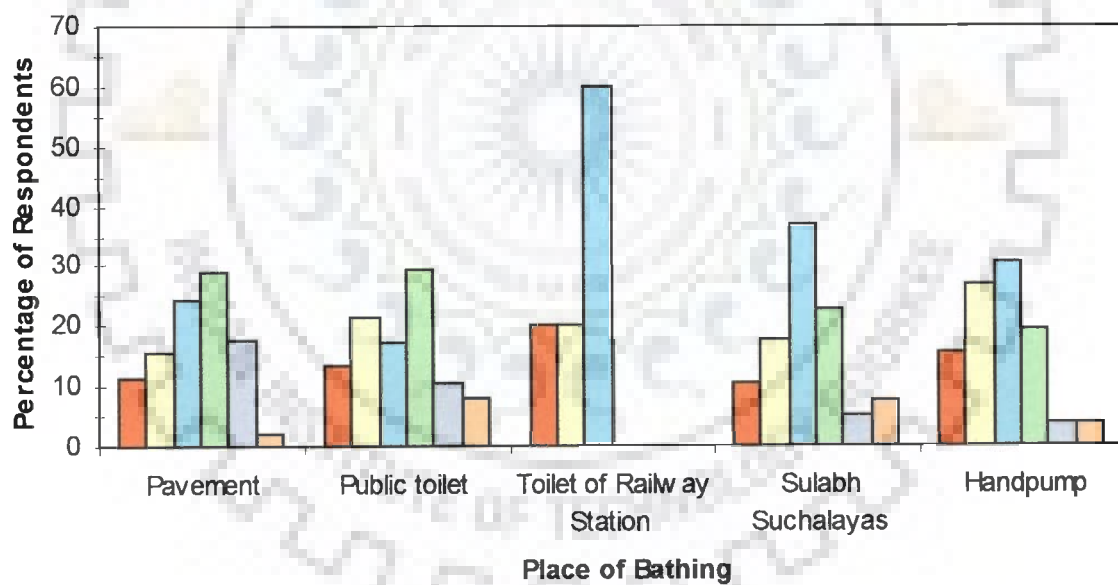
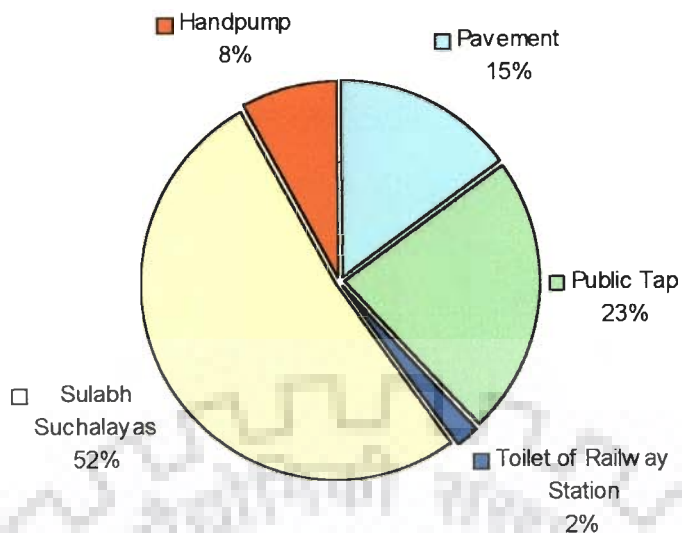
Bathing is one of the important activities in human beings day-to-day affairs. In Indian Hindu tradition, people use to go for bathing as soon as they get up, and then do Surya Namaskar, that is worship of Sun God. It is invariably found among the Hindu Communities, irrespective of economic classes. Since four-fifth of the sample respondents (80 per cent) (c.r.f. Table 4.3) belong to the Hindu community, the Investigator tried to find their bathing habit and the place of bathing, and the results are presented in Table 4.26 and Fig. 4.32. The table reveals that almost all respondents take bath every day and in some cases they take bath in the evening too. It has been found that more than half of the respondents (52 per cent) take bath from the Sulabh Suchalayas, one of the non government organization's, which provide facilities to the homeless in connection with bathing, washing clothes, defecation, etc., about one-fourth (23 per cent) of the samples take bath from public taps, and very meager from hand pumps and public toilets. It is also reported that considerable number of people 15 per cent, i.e., women takes bath from the pavements. In fact, these segment (women) used to fetch water either from public taps or hand pumps and bring to the pavements where little bit isolated place is available for them and take bath.

It is also observed that the number of people take bath from different sources are increasing along with monthly income from Rs. < 900 to Rs. 3000,



*Table 4.26 : Place of Bathing*

S. No.	Income per month	Place of Bathing					Total	Percent (%)
		Pavement	Public Tap	Toilet of Railway Station	Sulabh Suchalayas	Handpump		
1	<900	5 (11.11)	9 (12.85)	1 (20.00)	17 (10.62)	4 (15.38)	36	12.00
2	900-1500	7 (15.58)	13 (18.57)	1 (20.00)	30 (18.75)	7 (26.92)	58	19.00
3	1500-2400	11 (24.44)	13 (18.57)	3 (60.00)	57 (35.62)	8 (30.76)	92	30.00
4	2400-3000	13 (28.88)	20 (28.57)	-	37 (23.12)	5 (19.26)	75	24.50
5	3000-4500	8 (17.77)	8 (11.44)	-	8 (5.00)	1 (3.84)	25	8.00
6	>4500	1 (2.22)	7 (10.00)	-	11 (6.89)	1 (3.84)	20	6.50
	<b>Total</b>	<b>45</b> (100.00)	<b>70</b> (100.00)	<b>5</b> (100.00)	<b>160</b> (100.00)	<b>26</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>15.00</b>	<b>23.00</b>	<b>2.00</b>	<b>52.00</b>	<b>8.00</b>	<b>100.00</b>	



(Income in Rs. per month)



**Income Group wise Place of Bathing**

**FIG. 4.32 : PLACE OF BATHING**

Source: Primary Survey, September 2001

and then started to observe the reverse trend. In fact the persons who take bath from the Sulabh Suchalayas (52 per cent) pay little money (Rs. 3 per head) to afford this facility. Though Rs. 3/- per head is the cost of bathing in sulabh, more than half of the respondents prefer the facility because they said that "something is better than nothing", about these facilities.

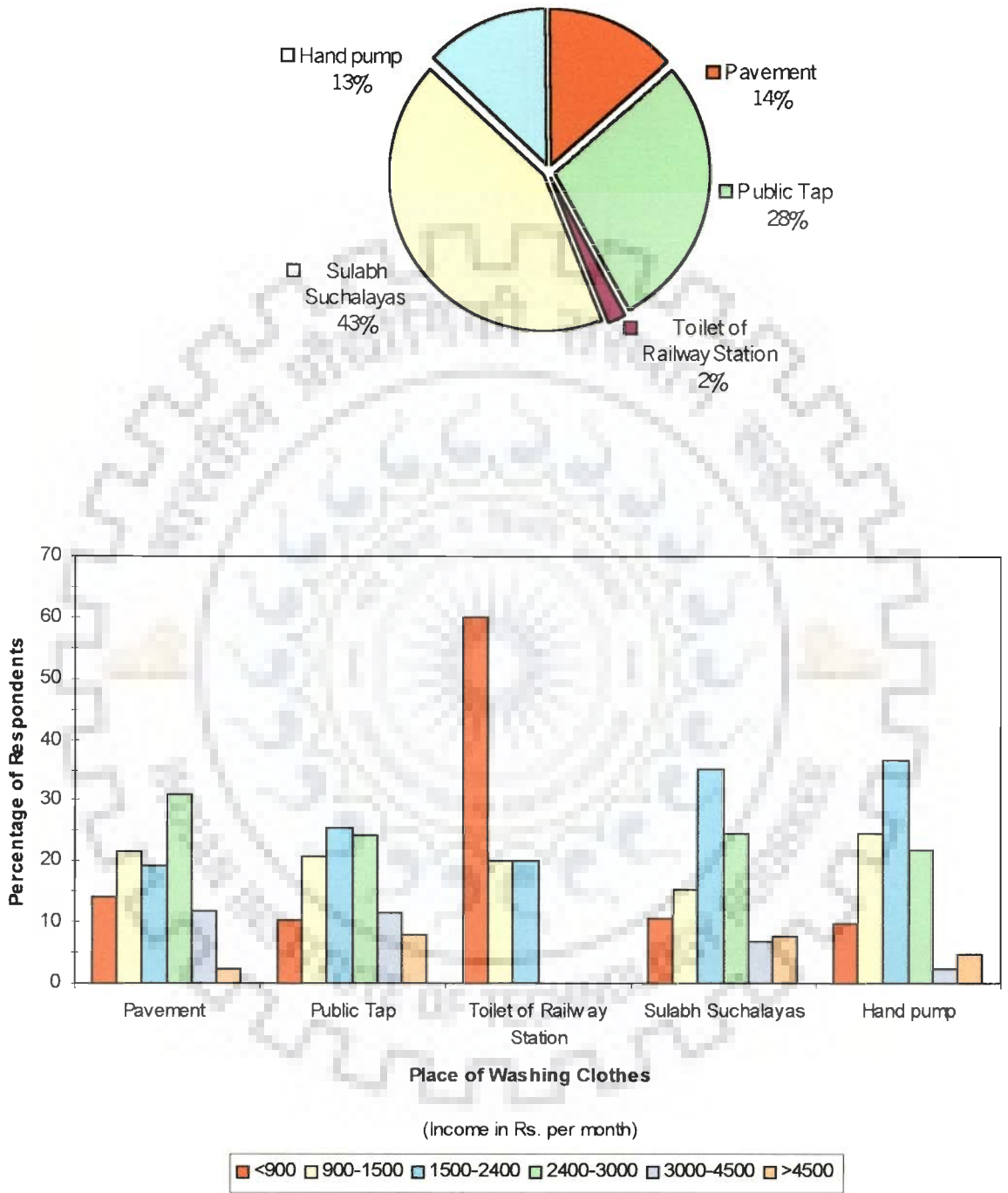
It is of interest, the Investigator further verified the bathing facilities provided by the Sulabh Suchalayas and found that these facilities (sulabh suchalays) are very good, and it serve the purpose of providing basic infrastructure facilities (bathing & defecation) in several places of the city.

#### **4.28 PLACE OF WASHING CLOTHES**

The homeless, generally have very few (one or two) clothes in their day-to-day living. They never give their clothes to the nearest laundry for services because of several reasons, such as, not having adequate number of clothes for changing, laundry collects high cost for its services, and at times poor persons are not even allowed in some quality laundries, etc. As a result, these segments of the population are forced to wash their own clothes. Incidentally, since these people are taking more or less bath from public places, they used to wash their clothes during their bathing. In fact, the Investigator knows their problems very well pertaining to these activities. Even then, the Investigator studied this parameter very meticulously, and the results are reported in Table 4.27 and Fig. 4.33. This table illustrates that more than two-fifth of the respondents (43 per cent)

*Table 4.27: Place of Washing Clothes*

<i>S.No.</i>	<i>Income per month</i>	<i>Place of Washing Clothes</i>					<i>Total</i>	<i>Percent (%)</i>
		<i>Pavement</i>	<i>Public Tap</i>	<i>Toilet of Railway Station</i>	<i>Sulabh Suchalayas</i>	<i>Hand pump</i>		
1	<900	6 (14.28)	9 (10.34)	3 (60.00)	14 (10.68)	4 (9.75)	36	12.00
2	900-1500	9 (21.42)	18 (20.68)	1 (20.00)	20 (15.26)	10 (24.39)	58	19.00
3	1500-2400	8 (19.07)	22 (25.28)	1 (20.00)	46 (35.11)	15 (36.58)	92	30.00
4	2400-3000	13 (30.95)	21 (24.17)	-	32 (24.42)	9 (21.98)	75	24.50
5	3000-4500	5 (11.90)	10 (11.49)	-	9 (6.87)	1 (2.43)	25	8.00
6	>4500	1 (2.38)	7 (8.04)	-	10 (7.66)	2 (4.87)	20	6.50
	<b>Total</b>	42 (100.00)	87 (100.00)	5 (100.00)	131 (100.00)	41 (100.00)	306	100.00
	<b>Percent(%)</b>	14.00	28.00	2.00	43.00	13.00	100.00	



**Income Group wise Place of Washing Clothes**

**FIG. 4.33 : PLACE OF WASHING CLOTHES**

Source: Primary Survey, September 2001

depends on Sulabh Suclalayas, about one-third respondents (28 per cent) on public taps, about one-eight of the respondents on pavement and hand pumps respectively. On the basis of income, it is also observed that the number of people using all types of said facilities increases along with monthly income from Rs. <900 to Rs. 3000 invariably, and then started to observe the reverse trend. It is also observed that though the Sulabh Suchalayayas collects little (very meagre) money, i.e., Rs 3/- per head for using these activities/considerable numbers of people (41 per cent) use these facilities by paying the token money.

The Investigator had discussed with the respondents regarding the facilities and found that some are interested to pay and use, and some feel that since public taps are available they never bother to use such (Sulabh Suchalayayas) facility, and another group of people expressed that since they stay as homeless what ever is available, that is same in front of them.

#### **4.29 PREFERENCE TO MEDICAL FACILITIES**

Availing medical facility is one of the important parameters among the needy communities. In fact, the Government of India is giving free medical facilities to the needy communities. The preamble of the Indian constitution too stressed for the importance of health. Almost all Towns, small Cities and also big Cities, Government hospitals are providing free medicine to the needy communities. In some places, the Government hospitals provide advanced medicines to the needy persons, and even have latest advanced technologies, and well trained specialised persons to treat the needy communities. But invariably, the homeless persons of the study area are often found in the private

hospital too though government gives the facilities to them. Therefore, the Investigator studied the preferences of medical facilities among the homeless, and the results are reported in Table 4.28 and Fig. 4.34. This table reveals that about half of the respondents (45 per cent) prefer private doctors, while one-fourth (26 per cent) prefer government doctors, and another set of one-fourth (27 per cent) prefer collecting medicine directly from the medical stores. The persons procure medicine from the chemist and ignore the health are found very meager, i.e., 1.00 per cent respectively.

It has been observed that the persons procure medicine either from private doctor, or from government doctor or directly from medical store are increasing along with monthly income from Rs. <900 to Rs. 2400, and then started to observe the reverse trend.

It is also distressing to note that even the lowest income category too prefer private doctors due to several reasons, such as, (a) the government hospital doctors treat them into shabby manner, (b) this segment of the community never have identity cards, or ration cards for entry, (c) even if they get entries, they have to wait for a long time in the queue for reaching the doctor, which they don't want because they have to go out for earning, etc.

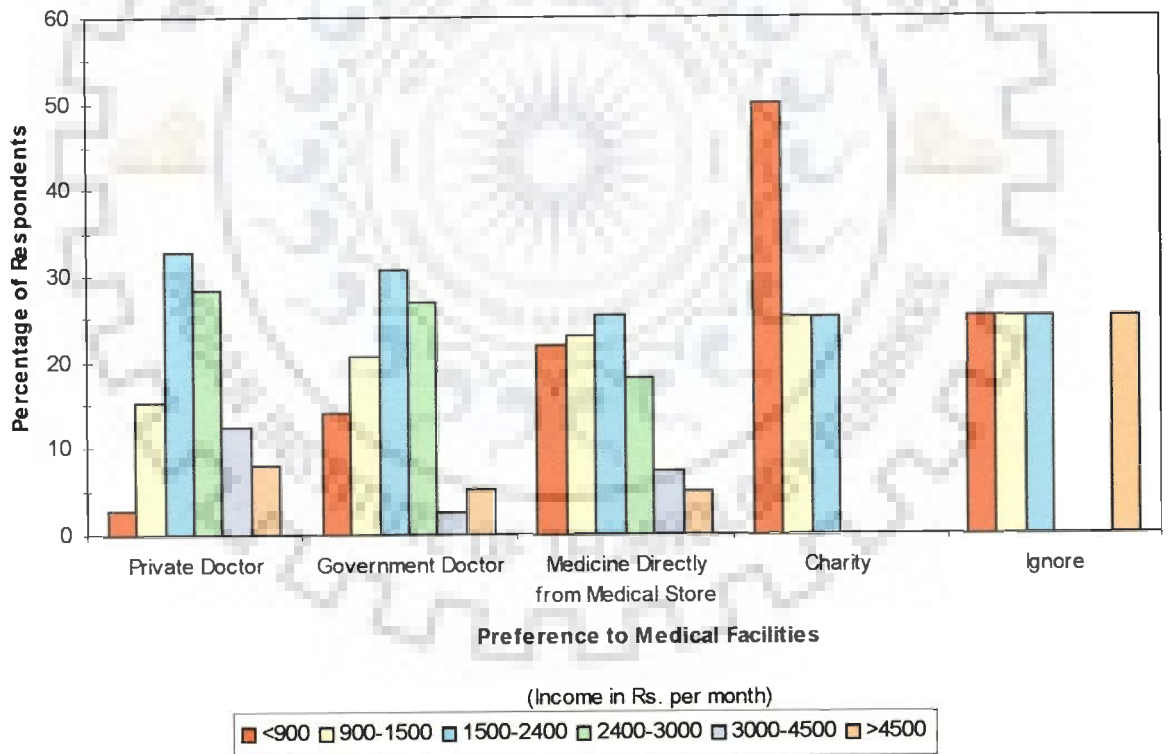
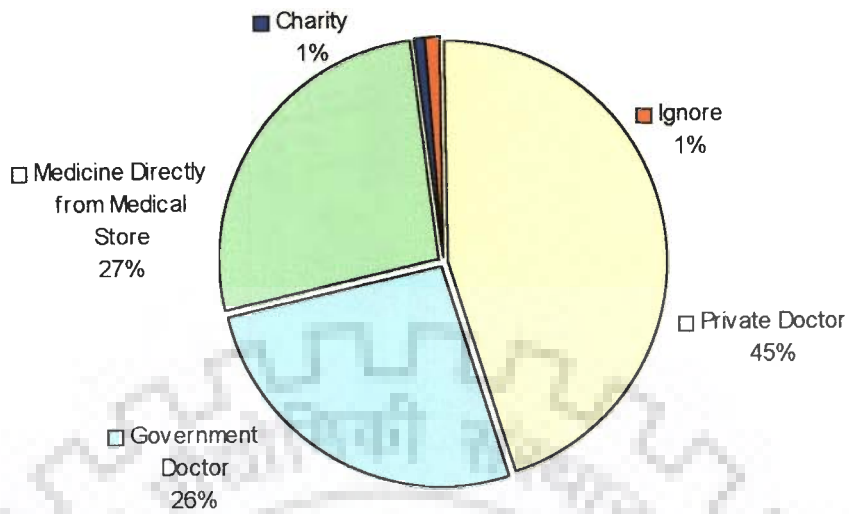
Therefore, even from the smallest income group, people prefer to collect medicine from either directly from the medical store or from the private doctors.

It has been also observed that more numbers of people among the homeless never bother about their health. They used to collect medicine only when the disease is relatively at extreme level. They never attend their health

*Table 4.28: Preference to Medical Facilities*

<i>S. No.</i>	<i>Income per month</i>	<i>Preference to Medical Facilities</i>					<i>Total</i>	<i>Percent (%)</i>
		<i>Private Doctor</i>	<i>Government Doctor</i>	<i>Medicine Directly from Medical Store</i>	<i>Charity</i>	<i>Ignore</i>		
1	<900	4 (2.91)	11 (14.10)	18 (21.68)	2 (50.00)	1 (25.00)	36	12.00
2	900-1500	21 (15.32)	16 (20.51)	19 (22.89)	1 (25.00)	1 (25.00)	58	19.00
3	1500-2400	45 (32.86)	24 (30.76)	21 (25.30)	1 (25.00)	1 (25.00)	92	30.00
4	2400-3000	39 (28.46)	21 (26.92)	15 (18.07)	-	-	75	24.50
5	3000-4500	17 (12.40)	2 (2.56)	6 (7.22)	-	-	25	8.00
6	>4500	11 (8.05)	4 (5.15)	4 (4.84)	-	1 (25.00)	20	6.50
	<b>Total</b>	<b>137</b> (100.00)	<b>78</b> (100.00)	<b>83</b> (100.00)	<b>4</b> (100.00)	<b>4</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>45.00</b>	<b>26.00</b>	<b>27.00</b>	<b>1.00</b>	<b>1.00</b>	<b>100.00</b>	





**Income Group wise Preference to Medical Facilities**

**FIG. 4.34 : PREFERENCE TO MEDICAL FACILITIES**

Source: Primary Survey, September 2001

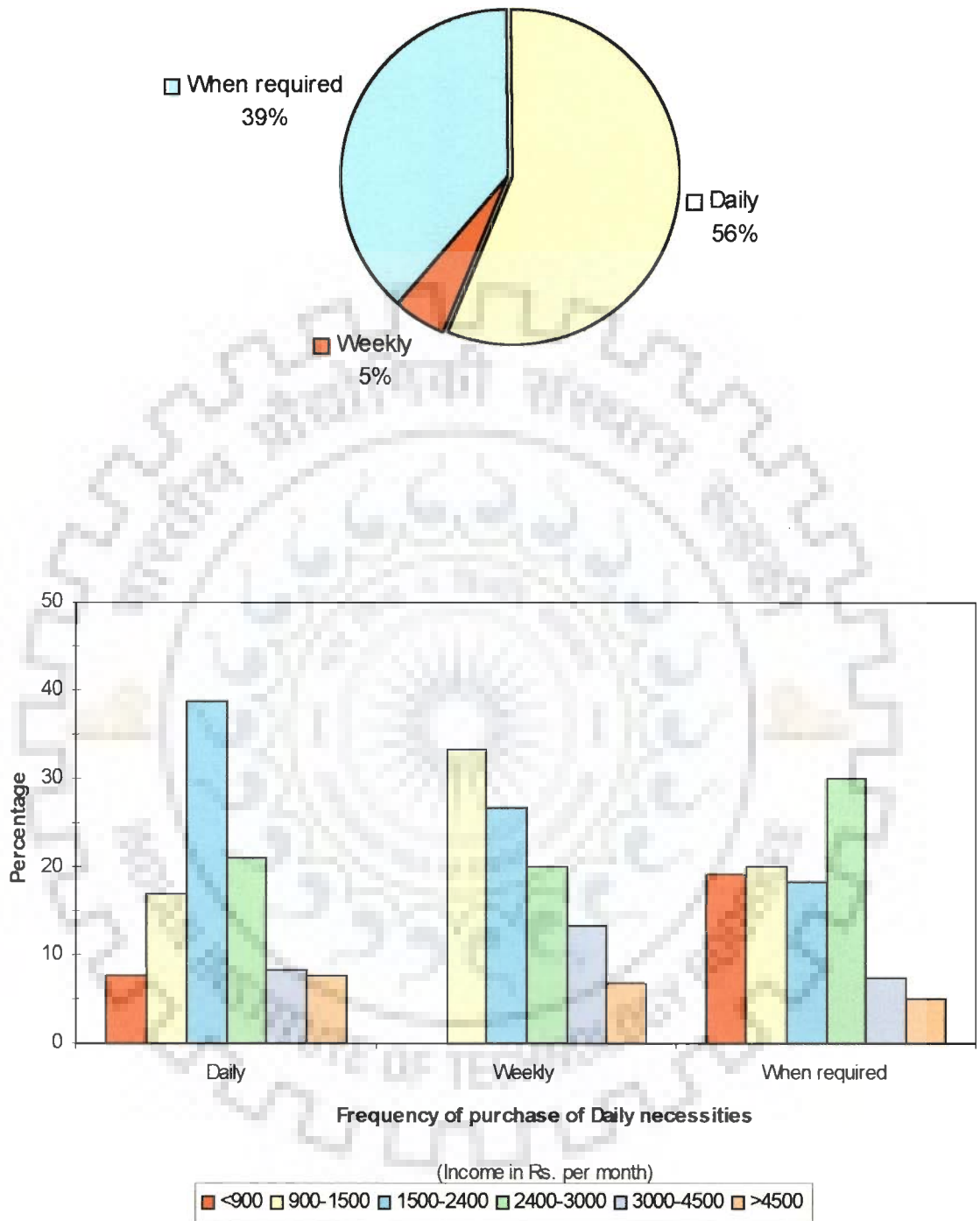
problems during the beginning stages. As a result, when the disease is aggravated, they find several complicated problems, and spend little more money to cure the same.

#### **4.30 FREQUENCY OF PURCHASE OF DAILY NECESSITIES**

The homeless earn income on daily basis or on work basis that may be over within an hour or two. They used to count their income as soon as they earn. In some cases, if a person earn little more money in the forenoon, he is not even attempting to go for a job in the afternoon, because more or less he/she is getting satisfaction. Generally, they collect their own necessary item for survival in the evening once they complete their jobs. In some cases, it has been observed that they used to collect necessary items during their jobs too. For example, the vegetable vendor, used to collect his / her own required items when they go for purchasing vegetables from the market for business. Since the Investigator has longer experience with their activities, it is of interest to study this part also along with the investigation and the results are presented in Table 4.29 and Fig. 4.35. The table illustrates that more than half of the surveyed respondents (56 per cent) collect the required items daily, about two-fifth of the respondents (39 per cent) collect the required items as and when it is required, and rest of them (5 per cent) collect once in a week. It is also observed that the persons who collect materials either on daily income basis is increasing along with monthly income from Rs. <900 to Rs. 2400, and as and when required up to Rs. 3000, and then the representation observed the reverse trend. It is observed that 95 per cent out of total surveyed persons collect their necessary items either

*Table 4.29 : Frequency of Purchase of Daily necessities*

S. No.	Income per month	Frequency of Purchase of Daily necessities			Total	Percent (%)
		Daily	Weekly	When required		
1	<900	13 (7.60)	-	23 (19.16)	36	12.00
2	900-1500	29 (16.98)	5 (33.35)	24 (20)	58	19.00
3	1500-2400	66 (38.59)	4 (26.66)	22 (18.34)	92	30.00
4	2400-3000	36 (21.05)	3 (20)	36 (30)	75	24.50
5	3000-4500	14 (8.18)	2 (13.33)	9 (7.50)	25	8.00
6	>4500	13 (7.60)	1 (6.66)	6 (5)	20	6.50
	<b>Total</b>	<b>171</b> (100.00)	<b>15</b> (100.00)	<b>120</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>56.00</b>	<b>5.00</b>	<b>39.00</b>	<b>100.00</b>	



**Income Group wise Frequency of Purchase of daily necessities**

**FIG. 4.35 : FREQUENCY OF PURCHASE OF DAILY NECESSITIES**

Source: Primary Survey, September 2001

daily or as and when required. It shows their poverty stricken condition, because in retail shops, generally, the cost of goods is very high, where they sale goods at smaller level quantity.

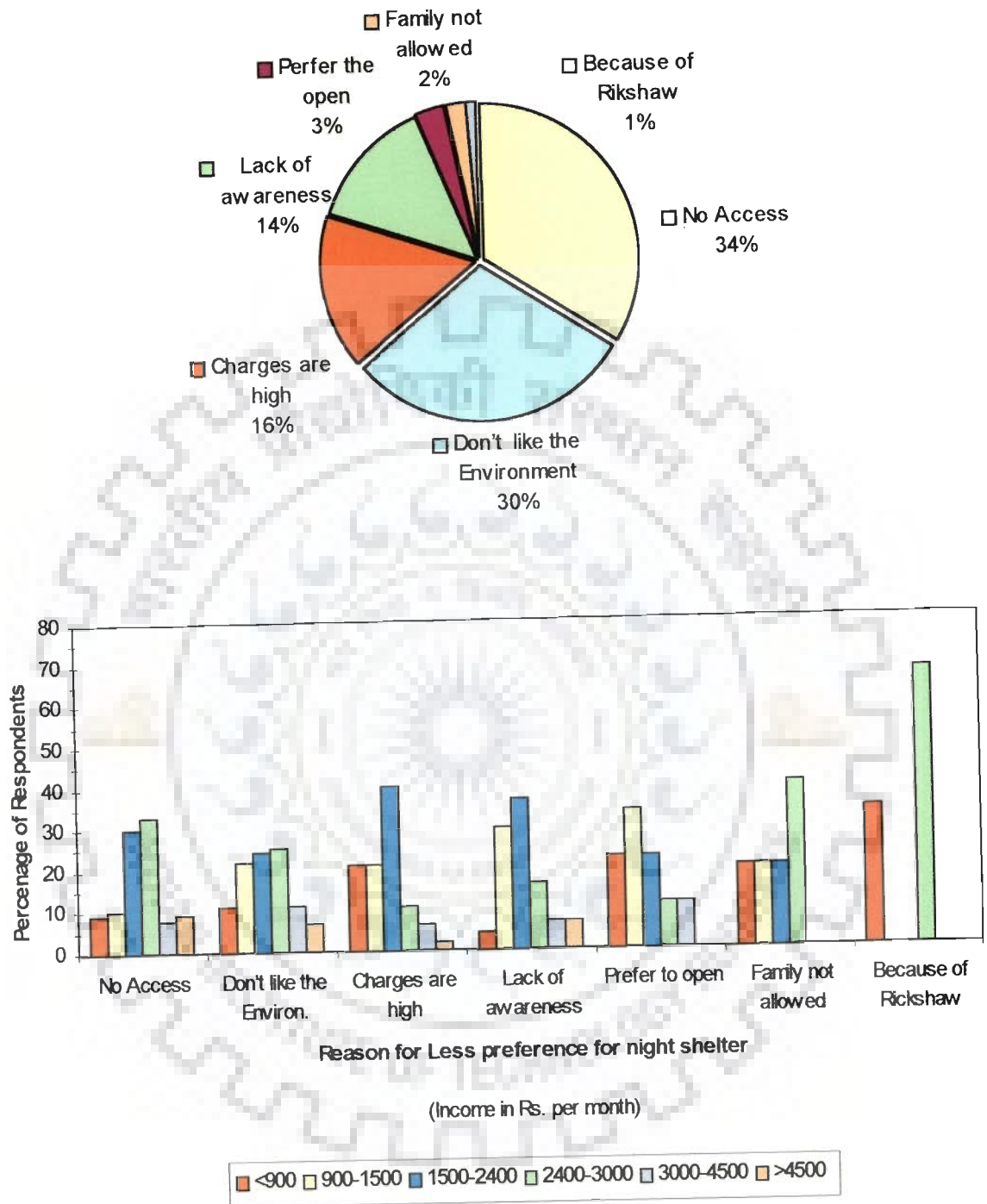
The persons, who have money to collect goods in bulk, they used to collect invariably at lesser price. Since these people do not have much money, they are forced to collect goods on almost every day at higher cost.

#### **4.31 REASON FOR LESS PREFERENCE FOR NIGHT SHELTER**

The homeless persons of the study area are not preferring the Night Shelter, and only just 2 per cent of the respondents used to use the Night Shelter that too during the monsoon season. It is of interest, the Investigator studied the reason for the same very meticulously, and found various reasons are responsible for the same. They are: (a) no access, (b) these people do not like the environment, (c) charges of the Night shelter are high, (d) lack of awareness, (e) prefer open spaces, (f) persons with family are never allow to enter into the Night Shelters (g) and no security safeguard their belongings like rickshaws, handcarts, etc. The people are grouped based on the reasons given by them and incorporated them under different income groups for analysis. The results are presented in Table 4.30 and Fig. 4.36. The table illustrates that one-third of the respondents (34 per cent) are in the opinion of not having access to the Night Shelters. Another set of about one-third of the respondents (30 per cent) opinioned that they do not like the environment in the Night Shelters. About one – sixth of the respondents (16 per cent) viewed that the charges of the Night

*Table 4.30 : Reason for Less Preference for Night Shelter*

S. No.	Income per month	Reason for Less Preference for Night Shelter							Total	Percent (%)
		No Access	Don't like the Environment	Charges are high	Lack of awareness	Perfer the open	Family not allowed	Because of Rikshaw		
1	<900	10 (9.43)	10 (10.98)	10 (20.83)	2 (4.54)	2 (22.22)	1 (20.00)	1 (33.33)	36	12.00
2	900-1500	11 (10.37)	20 (21.97)	10 (20.83)	13 (29.54)	3 (33.34)	1 (20.00)	-	58	19.00
3	1500-2400	32 (30.18)	22 (24.19)	19 (39.58)	16 (36.36)	2 (22.22)	1 (20.00)	-	92	30.00
4	2400-3000	35 (33.05)	23 (25.29)	5 (10.43)	7 (15.90)	1 (11.11)	2 (40.00)	2 (66.67)	75	24.50
5	3000-4500	8 (7.54)	10 (10.98)	3 (6.25)	3 (6.83)	1 (11.11)	-	-	25	8.00
6	>4500	10 (9.43)	6 (6.59)	1 (2.08)	3 (6.83)	-	-	-	20	6.50
	<b>Total</b>	<b>106</b> (100.00)	<b>91</b> (100.00)	<b>48</b> (100.00)	<b>44</b> (100.00)	<b>9</b> (100.00)	<b>5</b> (100.00)	<b>3</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>34.00</b>	<b>30.00</b>	<b>16.000</b>	<b>14.00</b>	<b>3.00</b>	<b>2.00</b>	<b>1.00</b>	<b>100.00</b>	



**Income Group wise Reason for Less Preference for Night Shelter**

**FIG. 4.36: REASON FOR LESS PREFERENCE FOR NIGHT SHELTER**

Source: Primary Survey, September 2001

Shelter are very high. Followed by, a considerable amount of people (14 per cent) opinioned that they do not aware of the availability of the facilities, and very meager amount of people opinioned that they do not prefer due to either family persons not allowed or to safeguard their belongings, i.e., protecting their rickshaws, handcart, etc. It is also observed that the respondents who say whatever reasons, their numbers are increasing along with increase in monthly income upto Rs. 3000/- and then started to decrease. It has been also observed that only five per cent (c.r.f. Table 4.31) of the total respondents prefer night shelter that too only during the monsoon seasons, and rest never prefer at all due to the above mentioned reasons.

Further, the Investigator had a long discussions with the respondents to understand the magnitude of the problems, which they face in the night shelters and observed some important more reasons for not using the same. According to them, Night Shelters are open from 7 PM to till 7 AM. During daytime it is closed. After 12 mid-night no one is allowed to enter into the Night Shelter. They are not allowed to stay continuously for more than 20 days. Their belongings are not allowed inside, as a result they prefer staying outside on footpaths. Social groupings among homeless make them feel more secure staying in-groups on footpaths. In Night Shelters, people also have police fear, as at times police raid such places to pick up their monthly quota of arrests, as a crime solving measure. At times, homeless persons find the attitude of the management very offensive, as a result of which they avoid using them.

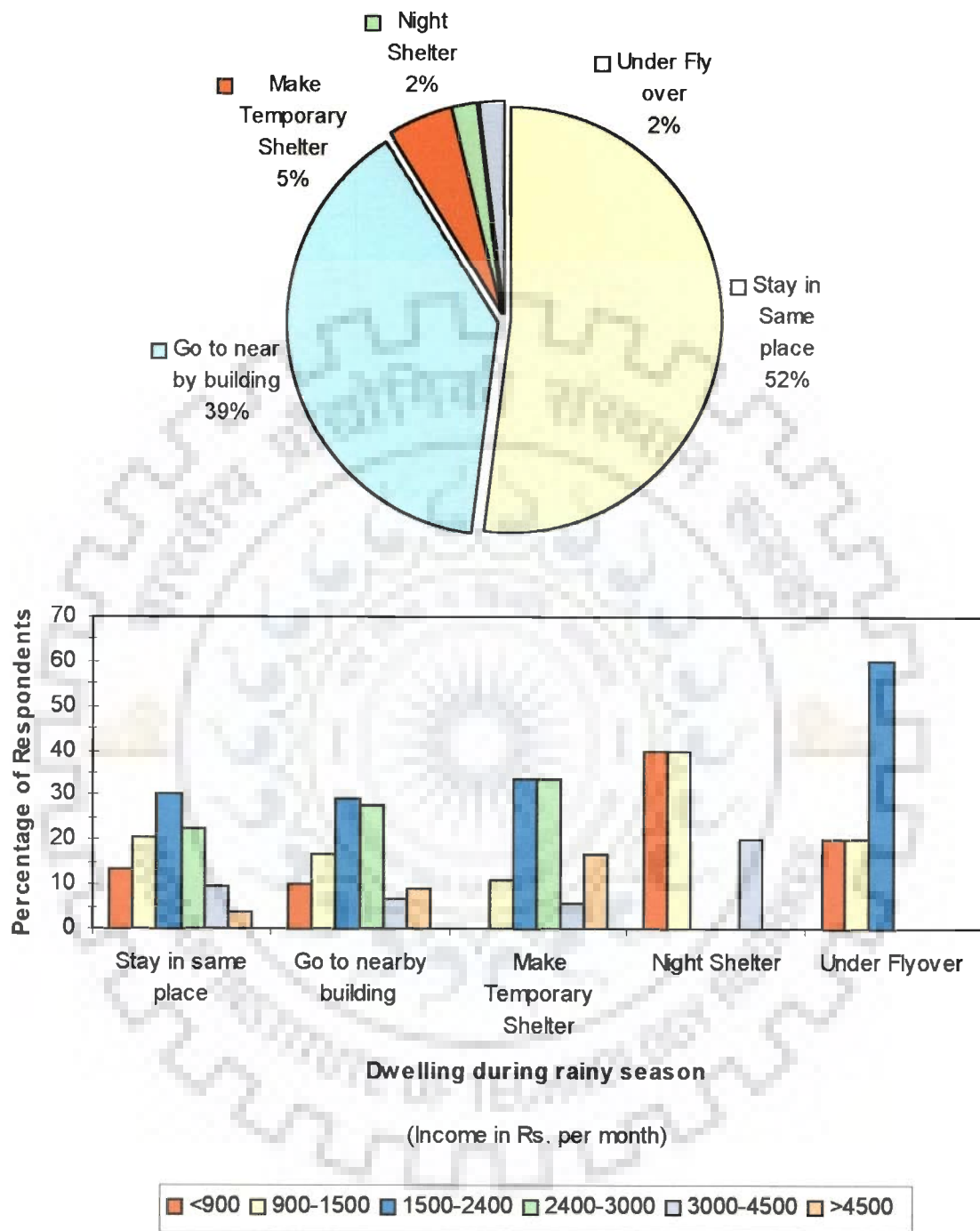


### 4.32 DWELLING DURING MONSOON SEASON

The homeless persons are put at the receiving end during the monsoon and foggy winter seasons. During the monsoon seasons, their lives are really jeopardise, and pathetic. It has been observed that some persons used to cover themselves by using plastic bags, plastic sheets, etc. Some cases used to try to get shelter under the bridges, flyovers, corridors, subways, verandahs of shopping complex etc. In fact, during these seasons, their lives become so vulnerable. Even then, they survive in these conditions and also try to adjust themselves. Having all these Knowledge in mind, the Investigator also studied this variable (dwelling during rainy season among the homeless), and presented the results in Table 4.31 and Fig. 4.37. This table explains that more than half of the respondents (52 per cent) stay in the same place even during the rainy season. About two-fifth of the respondents (39 per cent) go to near by buildings, for shelter. Followed by, a meager percent of the respondents (5 per cent) make temporary shelter, and the rest of them either go to Night Shelter or under flyover to safeguard them. It is also observed that the number of respondents in all categories (stay in same place, go to nearby buildings, make temporary shelter, Night Shelter, and flyovers) is increasing along with monthly income upto Rs. 2400, and then started to observe the reverse trend.

*Table 4.31: Dwelling during monsoon season*

<i>S.No.</i>	<i>Income per month</i>	<i>Dwelling during rainy season</i>					<i>Total</i>	<i>Percent (%)</i>
		<i>Stay in Same place</i>	<i>Go to near by building</i>	<i>Make Temporary Shelter</i>	<i>Night Shelter</i>	<i>Under Fly over</i>		
1	<900	21 (13.20)	12 (10.08)	-	2 (40.00)	1 (20.00)	36	12.00
2	900-1500	33 (20.75)	20 (16.80)	2 (11.11)	2 (40.00)	1 (20.00)	58	19.00
3	1500-2400	48 (30.18)	35 (29.41)	6 (33.33)	-	3 (60.00)	92	30.00
4	2400-3000	36 (22.64)	33 (27.73)	6 (33.33)	-	-	75	24.50
5	3000-4500	15 (9.46)	8 (6.72)	1 (5.55)	1 (20.00)		25	8.00
6	>4500	6 (3.77)	11 (9.26)	3 (16.68)			20	6.50
	<b>Total</b>	<b>159</b> (100.00)	<b>119</b> (100.00)	<b>18</b> (100.00)	<b>5</b> (100.00)	<b>5</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>52.00</b>	<b>39.00</b>	<b>5.00</b>	<b>2.00</b>	<b>2.00</b>	<b>100.00</b>	



**Income Group wise Dwelling during monsoon season**

**FIG. 4.37 : DWELLING DURING MONSOON SEASON**

Source: Primary Survey, September 2001

2. The homeless persons lived in the villages, which are prevalent for joint family system. Since these homeless persons families are living with joint family system in their native place, other who are living in the native place taking care of their families. To maintain the family expenditure people are forced to send money to their native place.
3. Since these people do not have proper accommodation in the city they are unable to bring their families, and left them in their native place. To safeguard them, these people are forced to send money to them.

#### **4.34 EXPENDITURE**

Expenditure among the homeless persons is being decided by their needs and attitudes but not by their income. If expenditure is being decided by income, the people who have higher income must have preferred to spend more money on shelter and other expenditure. But the situation is other way round among the homeless.

It has been observed that expenditure among the homeless are very meager in each and every activity, and they try to save maximum to send the same to their families and other kith and kin's in their native places. They never even bother to safeguard their interest by spending money that too even when they are undergoing health problem. In some cases it has been observed that though Sulabh Suchalayas are available they never prefer for defecation and bathing since they have to pay a very little amount i.e. Rs. 2 for defecation and Rs. 3/- for bathing which they do not want to pay.

Having these knowledge in mind, the Investigator conducted thorough investigation about the expenditure pattern of homeless persons pertaining to their expenditure under different heads such as food, shelter, transport, health, clothes, toilet and bathing facilities, smoking, liquor, drugs and cinema. The data are very carefully analysed and the results are presented under different heads in different tables, as shown below:

#### **4.35 EXPENDITURE ON FOOD**

Expenditure on food of the homeless of the study area is studied very carefully and the results are presented in Table 4.33 and Fig. 4.39. This table explains that two per cent of the respondents never spend money at all for food, they get food either from the charity organisations or from the employer where they work. Of the total persons who spend money for food, two-fifth of them (40.46 per cent) spend very little money i.e., Rs. < 600 per month for food. Followed by, little more than one-fourth of the respondents (28.42 per cent) spend between Rs. 601 and 900 per month, one-fifth of the respondents (21.07 per cent) spend Rs. 901-1200, and very meagre amount of persons spend more than Rs. 1201 per month.

It has been observed from the table the respondents confined in various expenditure groups are increasing along with increase in income upto increase in monthly income of Rs. 1501-2400 up to Rs. 900 per month expenditure on food, and then observed the reverse trend. But the members having expenditure on food between Rs. > 900 and 1200 is increased along with increase in income

Table 4.33: Expenditure on food

(Rs. per month)

S.No.	Income per month	Expenditure on food							Grand Total 1+7	Percent (%)
		1	2	3	4	5	6	7		
		0	<600	601-900	900-1200	1201-1500	>1500	Total 2+3+4+5+6		
1	<900	5 (71.42)	30 (24.79)	1 (1.17)	-	-	-	31 (10.36)	36	12.00
2	900-1500	2 (28.58)	40 (33.05)	14 (16.47)	2 (3.17)	-	-	56 (18.76)	58	19.00
3	1500-2400	-	40 (33.05)	35 (41.17)	15 (23.80)	2 (10.52)	-	92 (30.76)	92	30.00
4	2400-3000	-	8 (6.61)	22 (25.88)	33 (52.38)	7 (36.86)	5 (45.46)	75 (25.08)	75	24.50
5	3000-4500	-	1 (0.85)	8 (9.43)	8 (12.69)	5 (26.31)	3 (27.27)	25 (8.36)	25	8.00
6	>4500	-	2 (1.65)	5 (5.88)	5 (7.96)	5 (26.31)	3 (27.27)	20 (6.68)	20	6.50
	<b>Total</b>	7 (100.00)	121 {40.46} (100.00)	85 {28.42} (100.00)	63 {21.07} (100.00)	19 {6.38} (100.00)	11 {3.67} (100.00)	299 {100.00} (100.00)	306	100.00
	<b>Percent(%)</b>	2.00	40.00	28.00	21.00	6.00	3.00		100.00	

Figure in {...} denotes percentage to be total of Column No. 7

The Investigator has done further discussions with the homeless persons about their stay during the monsoon season and observed the following:

1. Nobody interrupt them by looking at the weather conditions, while they sleep under covered corridors.
2. The persons who stay along with their families usually stay on the same place by making some temporary arrangements, such as, covering them by plastic sheets, while the persons staying alone run to nearby buildings under the flyovers, subways, etc.
3. Those who are going to their native places for a short while more or less prefer to go to their places during the monsoon seasons to avoid more problems.

#### **4.33 REMITTANCES**

Remittances among the homeless are purely based on their income, savings and their linkages with their family persons in their native places. The homeless persons not only send money to their people who live in their native places, but also often go to their native places to meet them and also live with them. The love and affection, which they show among themselves, chain them together though they are staying far away from their native places. This lead to safeguard the interest of the people, those who are suffering for basic needs, such as, food, clothes and even shelter at their native places. As a consequence, the homeless persons do not even safeguard their own interest fully but try to safeguard their own people's interest at their level best so that they are sending the money to their persons those who stay at their native places.

Having this knowledge in mind, the Investigator very carefully studied the remittances made by the homeless persons in the study area, and grouped them into different categories based on their remittances, such as, people send Rs. per month <300, 301-500, 501-1000, 1001-1500, and > 1500 for analysis, and the results are presented in Table 4.32 and Fig. 4.38. The table illustrates that about one-third of the homeless (28 per cent) never send money at all to their native place. Of the total persons who send money to the people at their native place (221), one-sixth of them (15.83 per cent) send money less than Rs. 300 per month, one-fifth of them (20.84 per cent) send Rs. 301-500 per month, two-fifth of them (40.27 per cent) send Rs. 501-1000 per month, about one-fifth of them (18.09 per cent) send Rs. 1000-1500 per month, and a meager persons (4.97 per cent) send money above Rs. 1500 per month to the persons in their native place.

It has been observed from the data pertaining to income and remittances, the accountability of persons are increasing along with increase in their income to certain extent (1500-2400) and then started to observe the reverse trend. Similar observation is also observed in remittances too i.e., it is increased up to Rs. 501-1000, and then started to observe reverse trend.

The Investigator had conducted further discussions with the respondents about knowing their remittances, and their habit of remittances, and observed the following:

1. Their nexus with the society bound them to take care to their kith and kin's.

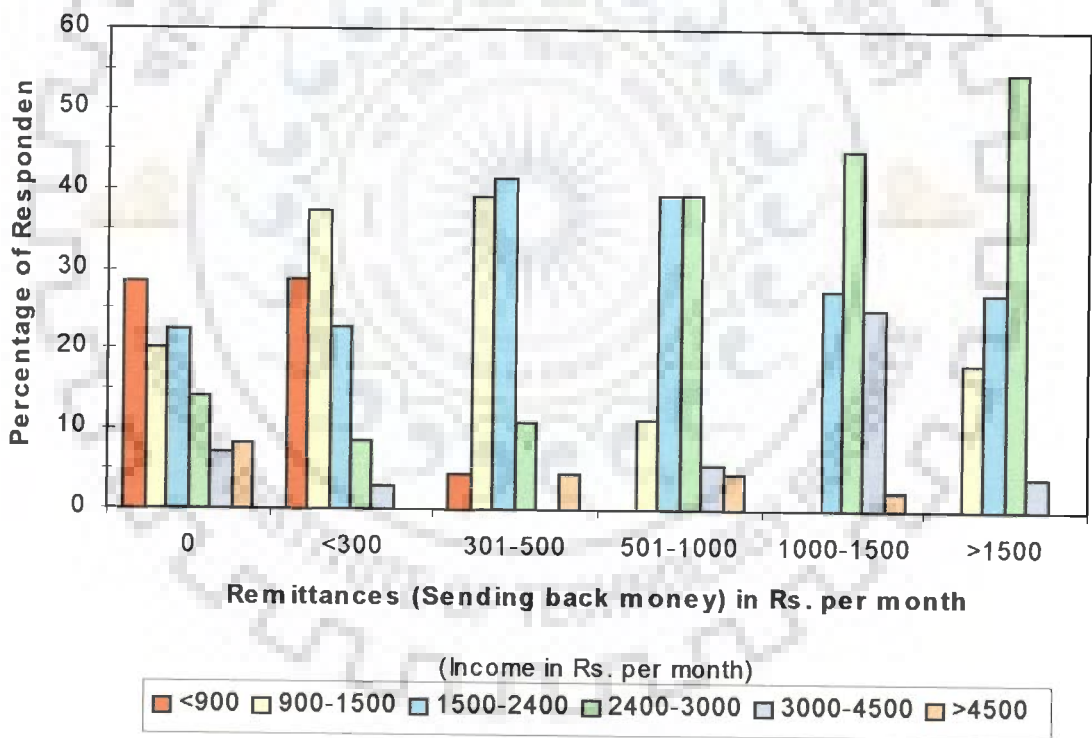
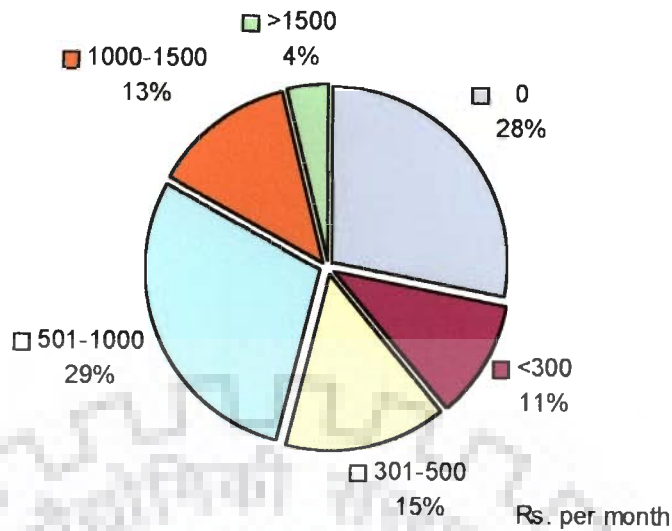


**Table 4.32: Remittances (Sending back money)**

(Rs. per month)

S.No.	Income per month	Remittances							Grand Total 1+7	Percent %
		1	2	3	4	5	6	7		
		0	<300	301-500	501-1000	1000-1500	>1500	Total 2+3+4+5+6		
1	<900	24 (28.23)	10 (28.57)	2 (4.34)	-	-	-	12 (5.42)	36	12.00
2	900-1500	17 (20.00)	13 (37.14)	18 (39.16)	10 (11.23)	-	-	41 (18.55)	58	19.00
3	1500-2400	19 (22.35)	8 (22.85)	19 (41.30)	35 (39.32)	11 (27.50)	-	73 (33.06)	92	30.00
4	2400-3000	12 (14.14)	3 (8.59)	5 (10.86)	35 (39.32)	18 (45.00)	2 (18.18)	63 (28.50)	75	24.50
5	3000-4500	6 (7.05)	1 (2.85)	-	5 (5.64)	10 (25.00)	3 (27.27)	19 (8.59)	25	8.00
6	>4500	7 (8.23)	-	2 (4.34)	4 (4.49)	1 (2.50)	6 (54.55)	13 (5.88)	20	6.50
	<b>Total</b>	85 (100.00)	35 {15.83} (100.00)	46 {20.84} (100.00)	89 {40.27} (100.00)	40 {18.09} (100.00)	11 {4.97} (100.00)	221 {100.00} (100.00)	306	100.00
	<b>Percent(%)</b>	28.00	11.00	15.00	29.00	13.00	4.00		100.00	

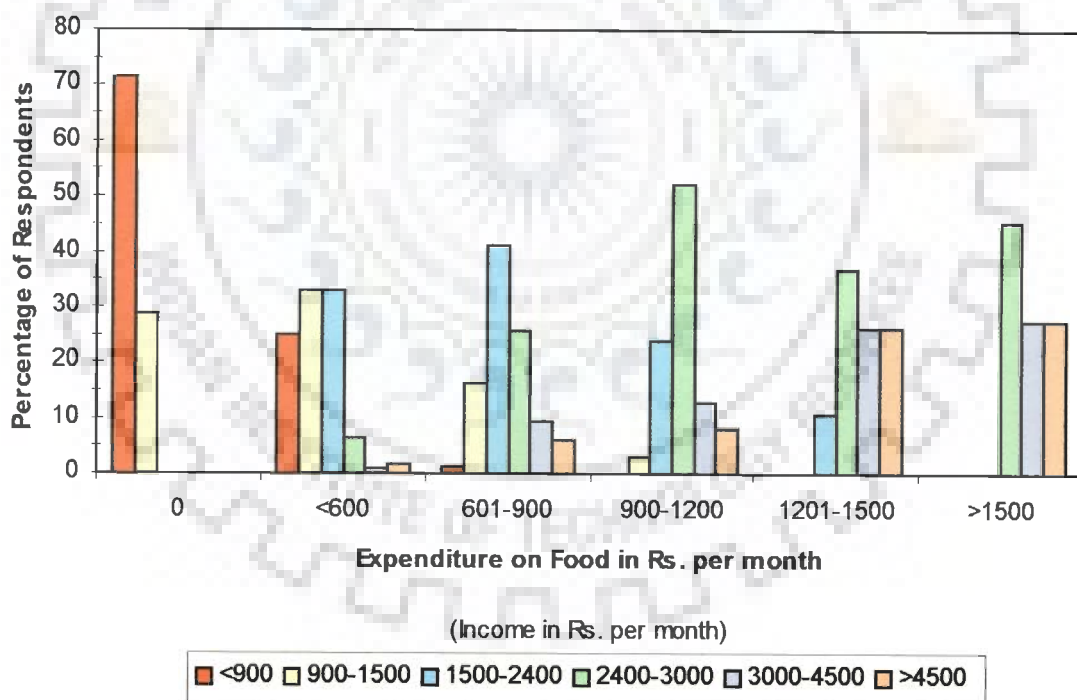
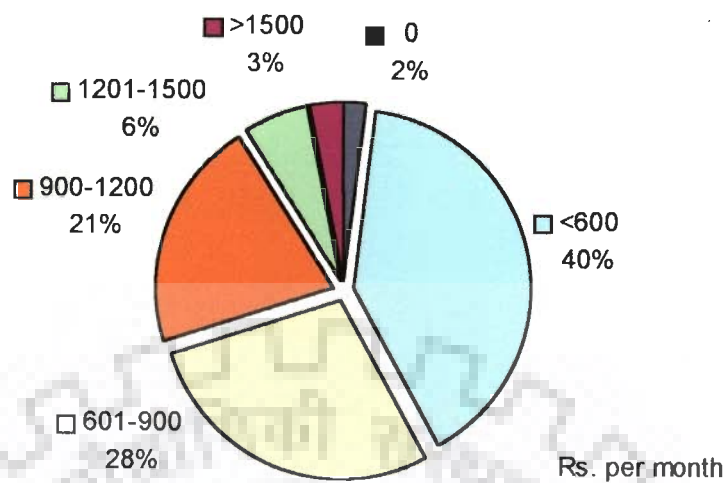
Figure in {...} denotes percentage to be total of Column No. 7



**Income Group wise Remittances (Sending back money)**

**FIG. 4.38 : REMITTANCES (SENDING BACK MONEY)**

Source: Primary Survey, September 2001



**Income Group wise Expenditure on food**

**FIG. 4.39: EXPENDITURE ON FOOD**

Source: Primary Survey, September 2001

i.e., upto the income group of Rs. 2400 – 3000, and then started to observe the reverse trend.

The Investigator further conducted the discussion with the respondents and observed the following. They are:

1. The persons who have the higher size of household spend more money of their income towards food for survival.
2. Those who cook food on their own spend little less towards food, since cooking reduces their expenditure.
3. The persons who frequently visit their native place usually have food from road side food stalls though the expenditure is high in food stalls in comparison with cooking own food since they have no place to store their belongings (utensils, stove etc.) during their visit to their native place.

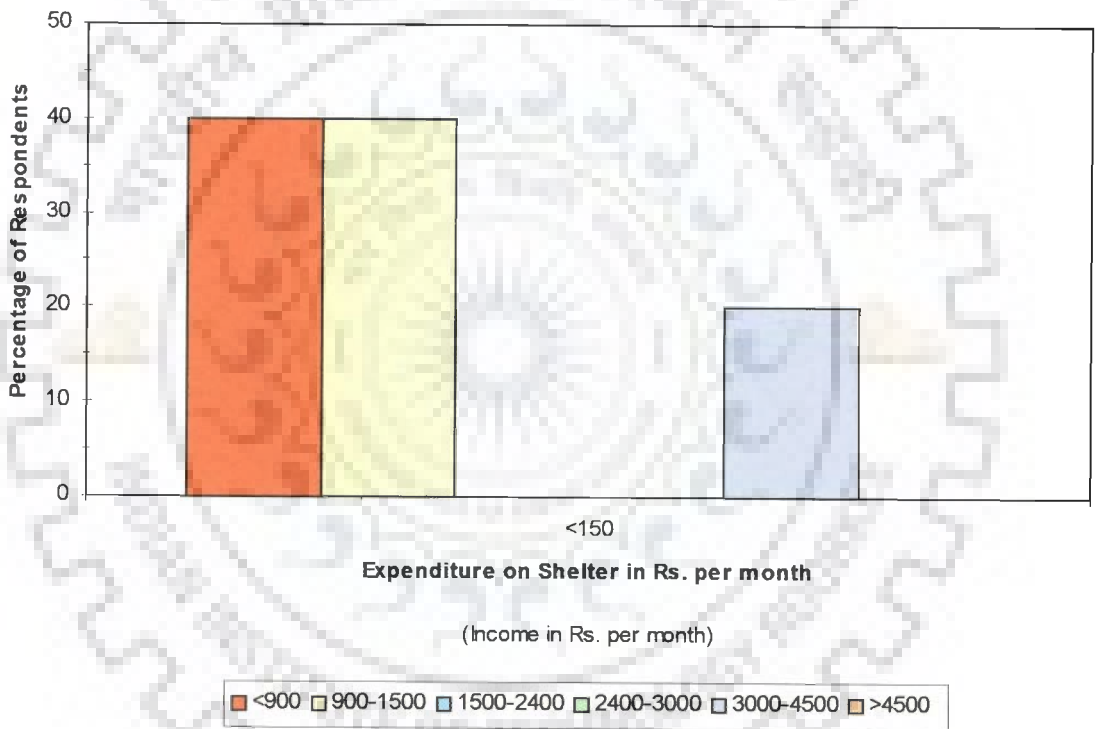
#### **4.36 EXPENDITURE ON SHELTER**

Expenditure made by the homeless persons towards shelter is very carefully studied and the results are presented in Table 4.34 and Fig. 4.40. The table explains that only very-very meagre persons of the total samples (1.63 per cent) spend very little money (less than Rs. 150 per month) for their shelter that too during the monsoon season (c.r.f. Table 4.31). Of which persons belong to different income group categories are Rs. < 900, 901-1500, and 3000-4500 [per month] are 40 per cent, 40 per cent and 20 per cent respectively. Not even a single respondent who spent money for shelter is found in other categories of

*Table 4.34: Expenditure on Shelter*

*(Rs. per month)*

<i>S. No.</i>	<i>Income per month</i>	<i>Expenditure on Shelter</i>	
		<i>&lt;150</i>	<i>Percent</i>
1	<900	2	40.00
2	900-1500	2	40.00
3	1500-2400	-	-
4	2400-3000	-	-
5	3000-4500	1	20.00
6	>4500	-	-
	<b>Total</b>	5	<b>100.00</b>
	<b>Percent (%)</b>	1.00	



**FIG. 4.40 : EXPENDITURE ON SHELTER**

Source: Primary Survey, September 2001

income. It actually shows that income is not at all responsible for using shelter on payment basis at the present prevailing situation in the study area.

#### **4.37 EXPENDITURE ON TRANSPORT**

Expenditure on transport made by the homeless persons is studied very carefully. Expenditure made by them is grouped into different categories, such as, Rs.<50, 51-100, 101-200 and >200 per month and are incorporated along with their monthly income, and are presented in Table 4.35 and Fig. 4.41. This table illustrates that there are little more than four-fifth of the respondents (82 per cent) never spend money for transportation at all, because most of them live very close to their work place and facilities necessary for their survival. Of the total person who spend money for transportation (total of 54 persons) about one-third of the respondents (31.48 per cent). spend Rs. <50 per month, about two-fifth of the respondents (38.88 per cent ) spend Rs. 51-100 per month and about 15 per cent of the respondents spend Rs. 101-200, and >200 per month respectively. The table also explains that the respondents confined in all categories of expenditure (<50,51-100,101-200 and >200), and the group which never spend money for transportation are increasing along with income upto Rs. 1500-2400 and then started to observe the reverse trend.

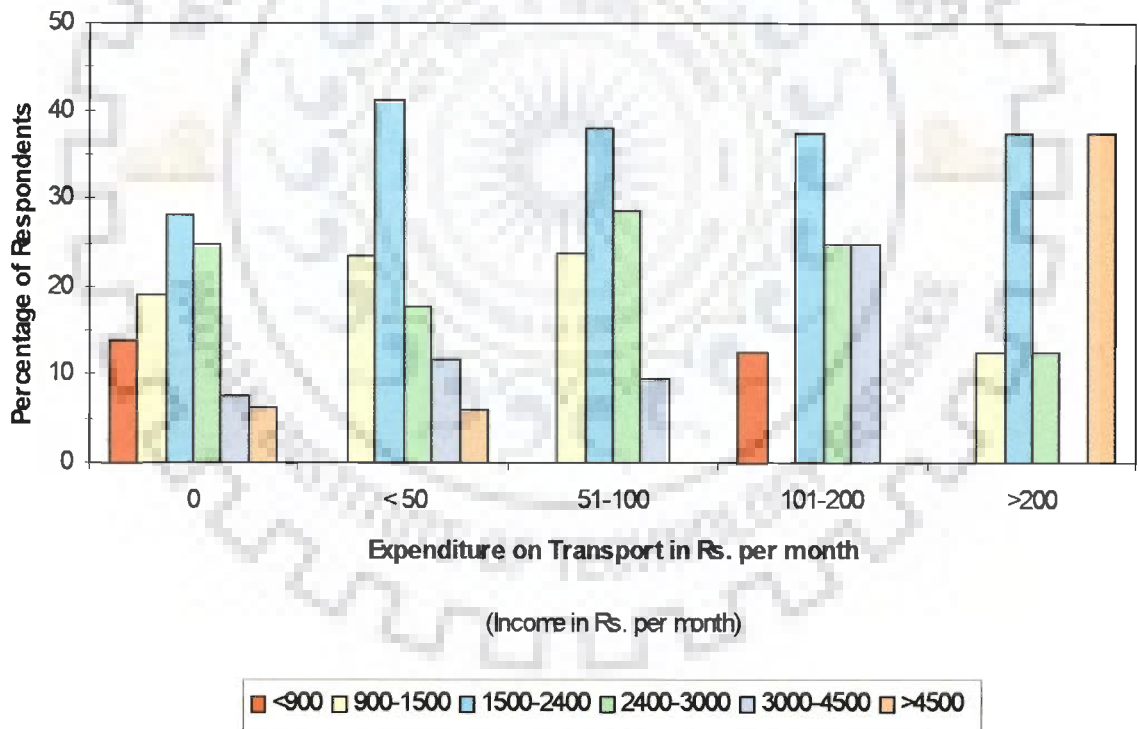
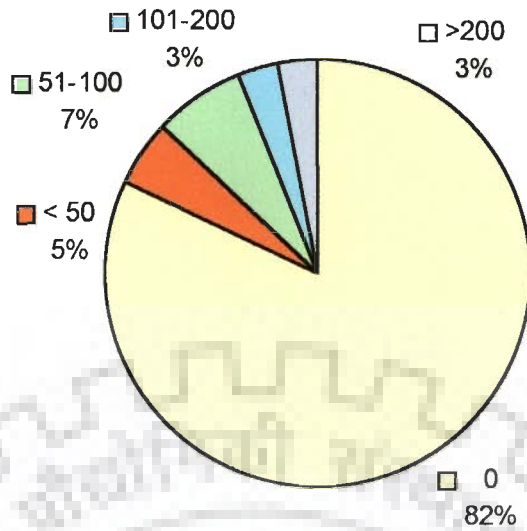
**Table 4.35: Expenditure on Transport**

(Rs. per month)

S.No.	Income per month	Expenditure on Transport						Grand Total 1+6	Percent (%)
		1	2	3	4	5	6		
		0	< 50	51-100	101-200	>200	Total 2+3+4+5		
1	<900	35 (13.88)	-	-	1 (12.5)	-	1 (1.85)	36	12.00
2	900-1500	48 (19.08)	4 (23.55)	5 (23.80)	-	1 (12.5)	10 (18.54)	58	19.00
3	1500-2400	71 (28.17)	7 (41.17)	8 (38.09)	3 (37.5)	3 (37.5)	21 (38.88)	92	30.00
4	2400-3000	63 (25.00)	3 (17.64)	6 (28.59)	2 (25.00)	1 (12.5)	12 (22.22)	75	24.50
5	3000-4500	19 (7.53)	2 (11.76)	2 (9.52)	2 (25.00)	-	6 (11.11)	25	8.00
6	>4500	16 (6.34)	1 (5.88)	-	-	3 (37.5)	4 (7.40)	20	6.50
	<b>Total</b>	<b>252</b> (100.00)	<b>17</b> {31.48} (100.00)	<b>21</b> {38.88} (100.00)	<b>8</b> {14.82} (100.00)	<b>8</b> {14.82} (100.00)	<b>54</b> {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>82.00</b>	<b>5.00</b>	<b>7.00</b>	<b>3.00</b>	<b>3.00</b>		<b>100.00</b>	

Figure in {...} denotes percentage to be total of Column No. 6





**Income Group wise Expenditure on Transport**

**FIG. 4.41 : EXPENDITURE ON TRANSPORT**

Source: Primary Survey, September 2001

The Investigator further done close discussions with the respondents, about their expenditure on transportation, and observed the following:

- (a) Since most of the people stay near by work place, they do not require to spend for transportation.
- (b) The persons who spend money for transportation is not actually spending for commuting for daily jobs, but bringing their required item for survival once in a week.

#### **4.38 EXPENDITURE ON HEALTH**

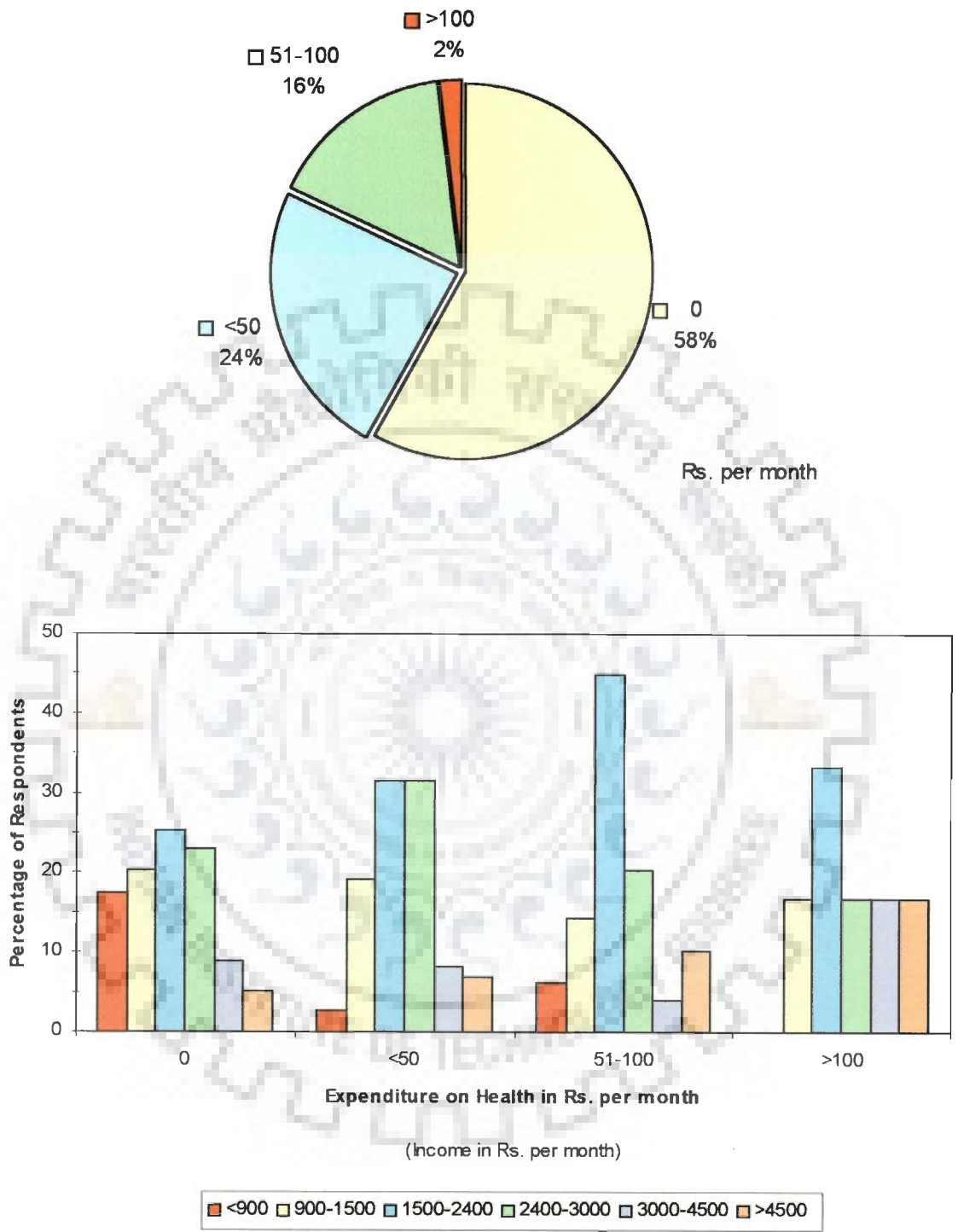
There is a proverb that 'Health is Wealth'. But it seems that this proverb is not applicable to this segment of the society because most of them never take care of their health or never give much attention to their health. Having this knowledge in mind, the expenditure on health is studied very carefully, and found that less than half of them spend little money for health. These group is classified under different groups based on their expenditure, such as, money spend Rs. < 50, 51-100 and >100 per month, and are incorporated in accordance with their monthly income for analysis. The results are presented in Table 4.36 and Fig. 4.42. The table explains that about three-fifth (58 per cent) persons of the total respondents never spend money at all for their health. Of the total persons who spend money, more than half of them (57.04 per cent) spend very little money, i.e., Rs. > 50 per month for health care activities, about two-fifth of them (38.28 per cent) spend Rs. 51-100 per month, and rest of them (only 4.68 per cent) spend more than Rs. 100 per month for the same.

Table 4.36: Expenditure on Health

(Rs. per month)

S.No.	Income per month	Expenditure on Health					Grand Total 1+5	Percent (%)
		1	2	3	4	5		
		0	<50	51-100	>100	Total 2+3+4		
1	<900	31 (17.41)	2 (2.73)	3 (6.15)	-	5 (3.90)	36	12.00
2	900-1500	36 (20.25)	14 (19.17)	7 (14.28)	1 (16.66)	22 (17.18)	58	19.00
3	1500-2400	45 (25.28)	23 (31.50)	22 (44.89)	2 (33.36)	47 (36.74)	92	30.00
4	2400-3000	41 (23.03)	23 (31.50)	10 (20.40)	1 (16.66)	34 (26.56)	75	24.50
5	3000-4500	16 (8.98)	6 (8.26)	2 (4.08)	1 (16.66)	9 (7.03)	25	8.00
6	>4500	9 (5.05)	5 (6.84)	5 (10.20)	1 (16.66)	11 (8.59)	20	6.50
	<b>Total</b>	178 (100.00)	73 {57.04} (100.00)	49 {38.28} (100.00)	6 {4.68} (100.00)	128 {100.00} (100.00)	306	100.00
	<b>Percent (%)</b>	58.00	24.00	16.00	2.00		100.00	

Figure in {...} denotes percentage to be total of Column No. 5



**Income Group wise Expenditure on Health**  
**FIG. 4.42 : EXPENDITURE ON HEALTH**

Source: Primary Survey, September 2001

spending for clothes. Further, the persons spending for clothes are divided into three categories, such as person spend Rs. < 50, 50-100 and >100 per month, and are incorporated along with their respective income categories for analysis. The results are presented in Table 4.37 and Fig. 4.43. The table explains that there are little more than one-fourth (27 per cent) of the respondents never spend money for clothes at all. Of the total persons who spend for clothes, about half of the persons (45.98 per cent) spend Rs. <50 per month, and another a set of about half of the persons (46.44 per cent) spent Rs. 51-100 per month and a very less number of people (7.58 per cent) spend Rs. >100 per month for clothes.

The table also further explains that the respondents confined in all the groups irrespective of either spending for clothes (people spends <50, 51-100 and >100 per month) or not spending for clothes are increasing along with increase in monthly income upto Rs. 1501-2400 and then started to observe the reverse trend.

The Investigator had done discussion with several respondents once again after the survey is over, regarding to their spending on clothes and observed the following.

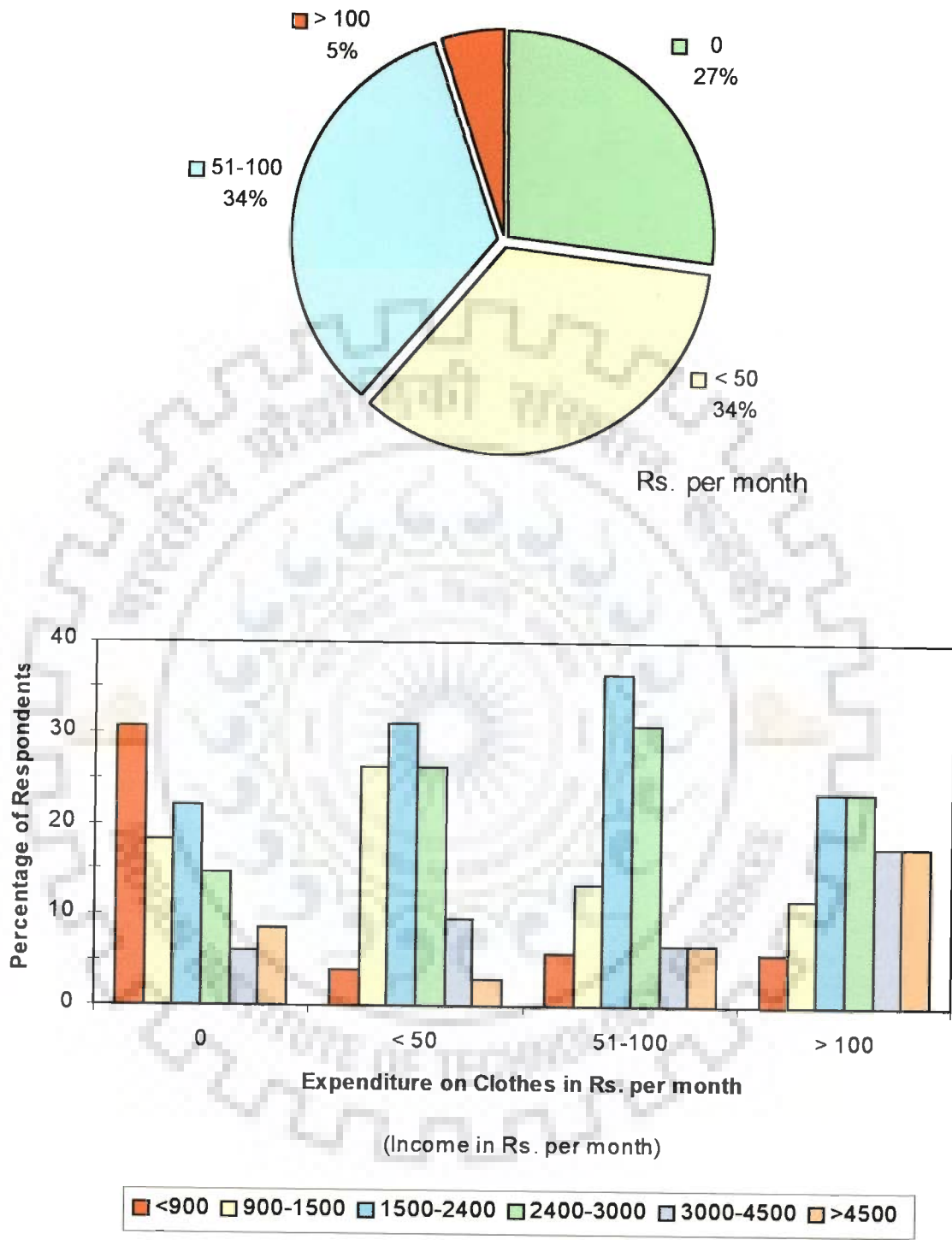
1. Few persons are collecting their clothes either from the charity or from the employer who engage them.
2. Among the persons who spend money for collecting clothes, almost all of them collect clothes from the open market where second hand clothes are sold at very negligible rate.

**Table 4.37: Expenditure on Clothes**

(Rs. per month)

S.No.	Income per month	Expenditure on Clothes					Grand Total 1+5	Percent (%)
		1	2	3	4	5		
		0	< 50	51-100	> 100	Total 2+3+4		
1	<900	25 (30.48)	4 (3.88)	6 (5.76)	1 (5.88)	11 (4.91)	36	12.00
2	900-1500	15 (18.29)	27 (26.21)	14 (13.46)	2 (11.78)	43 (19.19)	58	19.00
3	1500-2400	18 (21.95)	32 (31.09)	38 (36.53)	4 (23.53)	74 (33.03)	92	30.00
4	2400-3000	12 (14.63)	27 (26.21)	32 (30.79)	4 (23.53)	63 (28.15)	75	24.50
5	3000-4500	5 (6.09)	10 (9.70)	7 (6.73)	3 (17.64)	20 (8.92)	25	8.00
6	>4500	7 (8.56)	3 (2.91)	7 (6.73)	3 (17.64)	13 (5.80)	20	6.50
	<b>Total</b>	<b>82</b> (100.00)	<b>103</b> {45.98} (100.00)	<b>104</b> {46.44} (100.00)	<b>17</b> {7.58} (100.00)	<b>224</b> {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>27.00</b>	<b>34.00</b>	<b>34.00</b>	<b>5.00</b>		<b>100.00</b>	

Figure in {...} denotes percentage to be total of Column No. 5



**FIG. 4.43 : EXPENDITURE ON CLOTHES**

Source: Primary Survey, September 2001

3. It is found that those who are spending Rs. >100 per month for clothes are very much fond of wearing good clothes.

#### **4.40 EXPENDITURE ON TOILET AND BATHING FACILITIES**

Generally, the homeless persons used to go toilet and bathing wherever it is freely available and possible. Some persons used to use the facilities available by paying a token amount, i.e., Rs. 3/- for bathing and Rs. 2/- for defecation in Sulabh Suchalayyas. Having these knowledge in mind, the Investigator conducted the study in relation with their expenditure on bathing and toilet. The people those who spend money and not to spend money are segregated into two. Further, the people who spend money for the same are grouped into three groups on the basis of their payment per month, such as, Rs. <60, 60-90 and 90-150 and then these groups are clubbed with their income categories for analysis. The results are presented in Table 4.38 and Fig. 4.44. The table explains that about one seventh of the respondents (15 per cent) never spend money at all for bathing and defecation purposes, and use open spaces, pavements, and toilets of railway station, etc (c.r.f. Table 4.25 and 4.26). Of the total persons who pay little amount for bathing and toilet facilities (259), about two-fifth of them (38.24 per cent) only spend little money i.e., Rs. 2/- per day for toilet, and a meager number of persons (2.31 per cent) pay very little amount, i.e., Rs. 3/-day for bathing. About three-fifth of the respondents (59.45 per cent) use both facilities by paying Rs. 5/- per day.

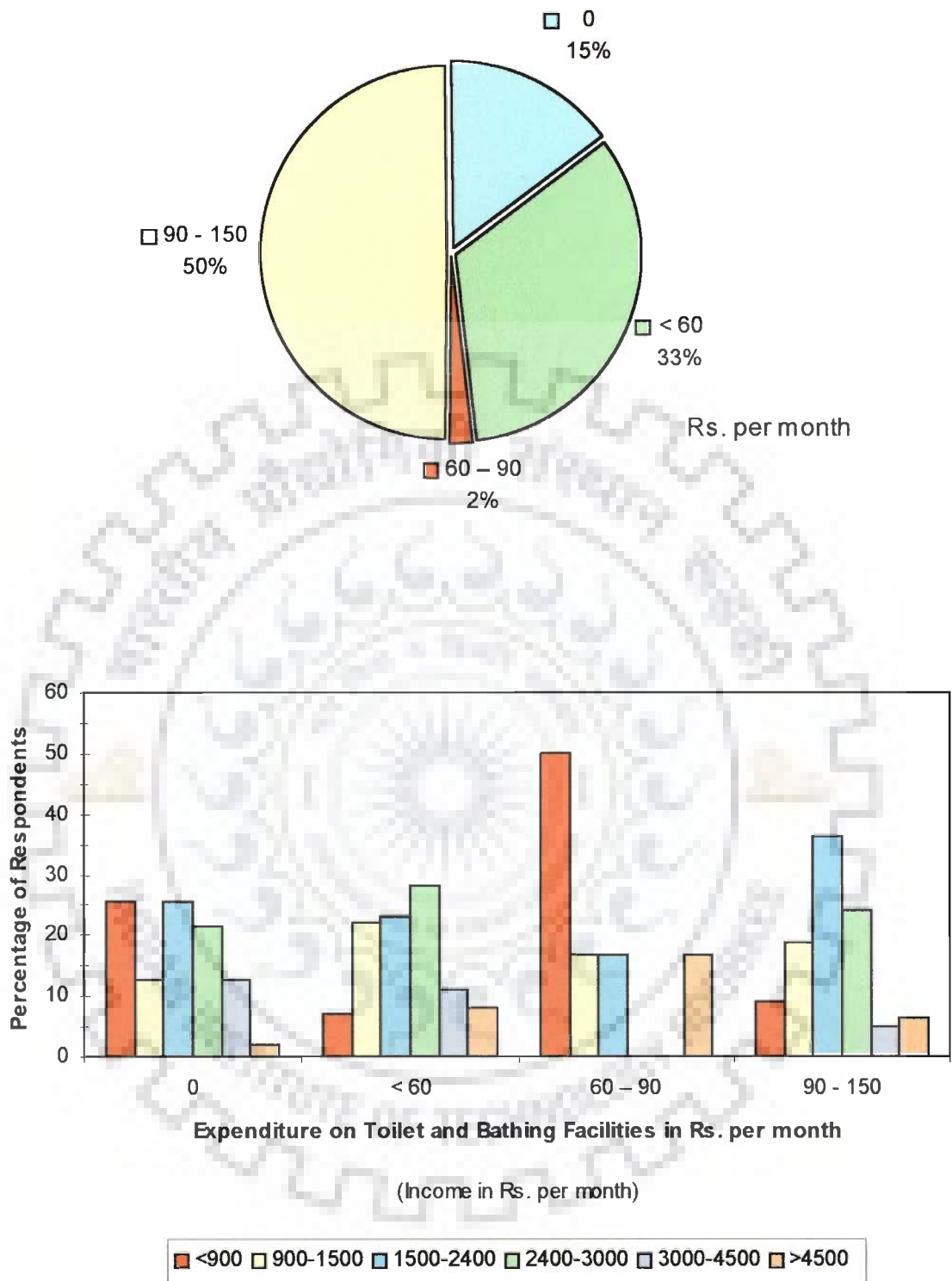


**Table 4.38: Expenditure on Toilet and Bathing Facilities**

(Rs. per month)

S.No.	Income per month	Expenditure on Toilet and Bathing Facilities					Grand Total 1+5	Percent (%)
		1	2	3	4	5		
		0	< 60	60 - 90	90 - 150	Total 2+3+4		
1	<900	12 (25.53)	7 (7.07)	3 (50.00)	14 (9.09)	24 (9.26)	36	12.00
2	900-1500	6 (12.76)	22 (22.22)	1 (16.67)	29 (18.85)	52 (20.07)	58	19.00
3	1500-2400	12 (25.53)	23 (23.24)	1 (16.67)	56 (36.36)	80 (30.88)	92	30.00
4	2400-3000	10 (21.30)	28 (28.28)	-	37 (24.02)	65 (25.09)	75	24.50
5	3000-4500	6 (12.76)	11 (11.11)	-	8 (5.19)	19 (7.35)	25	8.00
6	>4500	1 (2.12)	8 (8.08)	1 (16.66)	10 (6.49)	19 (7.35)	20	6.50
	<b>Total</b>	47 (100.00)	99 {38.24} (100.00)	6 {2.31} (100.00)	154 {59.45} (100.00)	259 {100.00} (100.00)	306	100.00
	<b>Percent (%)</b>	15.00	33.00	2.00	50.00		100.00	

Figure in {...} denotes percentage to be total of Column No. 5



**Income Group wise Expenditure on Toilet and Bathing Facilities**

**FIG. 4.44 : EXPENDITURE ON TOILET AND BATHING FACILITIES**

Source: Primary Survey, September 2001

Further, the table explains that the number of people confined in various income groups are increasing along with increase in income to the certain level and then started to observe the reverse trend, i.e., the persons pay Rs. 2/- per day increase along with monthly income upto Rs. 2400-3000, and then started to observe the reverse trend, while the rest of the groups increased along with monthly income upto Rs. 1500-2400, and then started to observe the reverse trend.

The Investigator further conducted discussions with the respondents and observed the following.

1. Few respondents stated that since they earn very less amount, five rupee also seem to be a big amount for them.
2. Since there is no strict rules and regulations enforced in the city, they are habituated to use open spaces for this purpose.

#### **4.41 EXPENDITURE ON SMOKING**

Smoking is invariably found among the lowest economic strata of the communities to avoid tension, and later it becomes habit. The homeless persons are not an exceptional one from these activities. These persons used to smoke and also spend money for the same though they earn little. Having this knowledge in mind, the expenditure made towards smoking by the homeless persons is studied very carefully. At the outset, the respondents are grouped into two groups, such as, persons not spending for smoking, and persons spending for smoking after having the survey. Then, the persons who smoke are grouped

into four groups based on their expenditure on smoking, such as, people spending Rs. <50, 51-100, 101-150 and >150 per month, and are clubbed along with their income groups for analysis, and the results are presented in Table 4.39 and Fig. 4.45. The table reveals that little more than one-fourth of the respondents (27 per cent) never smoke at all. Of the total persons who smoke (222), more than half of the respondents (54.95 per cent) spend Rs. 51-100 per month for smoking. Followed by, about one-fifth of the persons (17.56 per cent) spend Rs. 101-150 per month, about one-sixth of the persons (15.76 per cent) spend Rs. <50 per month, and little more than one-tenth of them (11.73 per cent) spend Rs. >150 per month.

The table also reveals that the number of persons accounted for both groups (persons not spending for smoking and persons spending for smoking) are increasing along with increase in monthly income upto Rs. 1501-2400, and then started to observe reverse trend. Similar observation is also found among the various expenditure groups i.e., persons spending Rs. <50, 51-100, 101-150, and >Rs. 150 per month for smoking.

The Investigator had done further discussion with majority of the respondents to gain more knowledge about their smoking and also money spends for smoking, and observes the following:

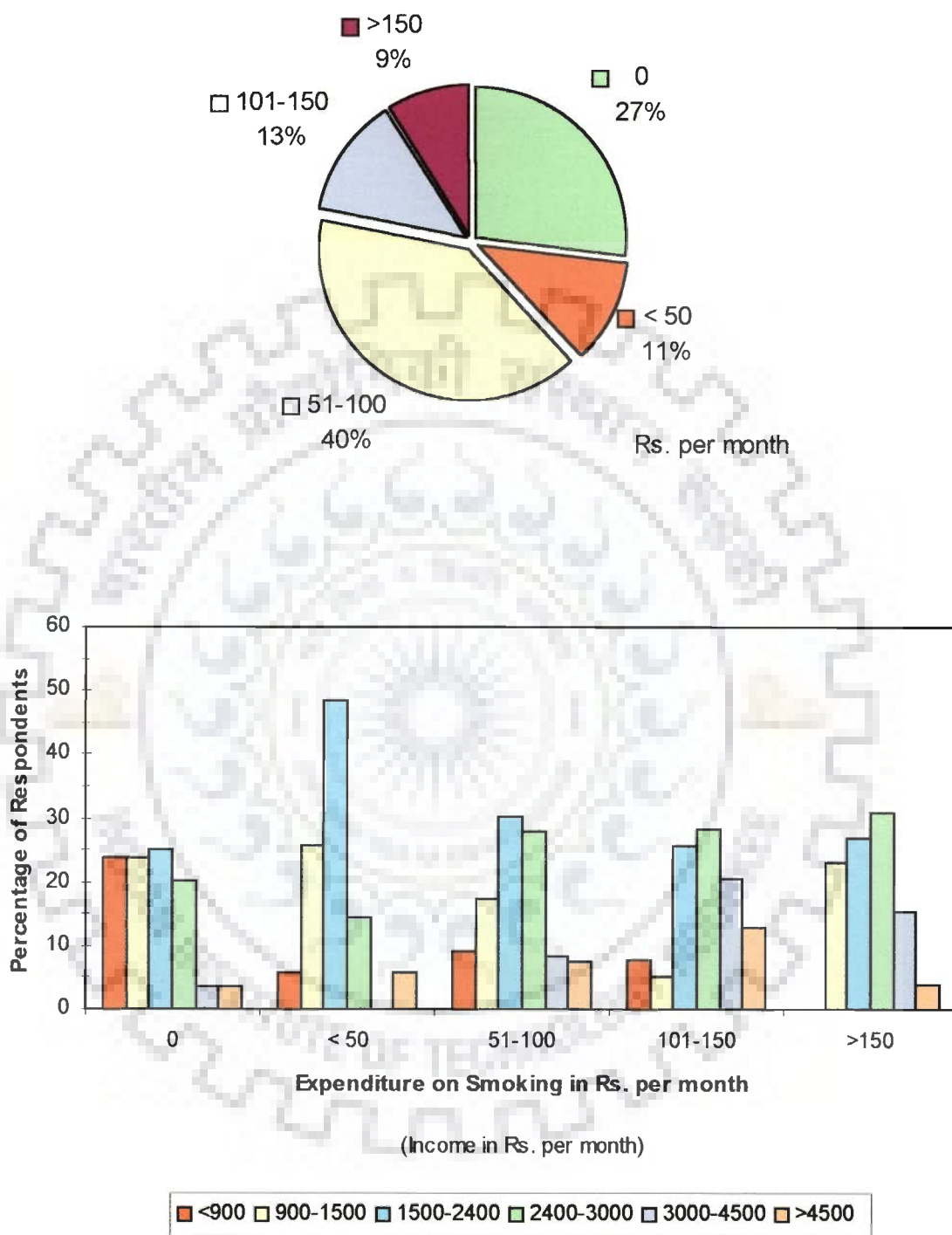
1. They smoke the lowest quality of tobacco in the form of biddies.
2. It is also very distressing to note that the female persons among these homeless too smoke, which is very rare among the Indian society.

**Table 4.39: Expenditure on Smoking**

(Rs. per month)

S.No.	Income per month	Expenditure on Smoking					Grand total 1+6	Percent (%)	
		1	2	3	4	5			6
		0	< 50	51-100	101-150	>150			Total 2+3+4+5
1	<900	20 (23.80)	2 (5.72)	11 (9.05)	3 (7.69)	-	16 (7.20)	36	12.00
2	900-1500	20 (23.80)	9 (25.71)	21 (17.21)	2 (5.12)	6 (23.07)	38 (17.11)	58	19.00
3	1500-2400	21 (25.00)	17 (48.57)	37 (30.32)	10 (25.64)	7 (26.95)	71 (31.98)	92	30.00
4	2400-3000	17 (20.26)	5 (14.28)	34 (27.86)	11 (28.20)	8 (30.76)	58 (26.14)	75	24.50
5	3000-4500	3 (3.57)	-	10 (8.19)	8 (20.51)	4 (15.38)	22 (9.90)	25	8.00
6	>4500	3 (3.57)	2 (5.72)	9 (7.37)	5 (12.84)	1 (3.84)	17 (7.68)	20	6.50
	<b>Total</b>	84 (100.00)	35 {15.76} (100.00)	122 {54.95} (100.00)	39 {17.56} (100.00)	26 {11.73} (100.00)	222 {100.00} (100.00)	306	100.00
	<b>Percent (%)</b>	27.00	11.00	40.00	13.00	9.00		100.00	

Figure in {...} denotes percentage to be total of Column No. 6



**Income Group wise Expenditure on Smoking**

**FIG. 4.45 : EXPENDITURE ON SMOKING**

Source: Primary Survey, September 2001

3. They sit in a group and smoke during the evenings after their work is over and have gathering or get together by smoking themselves together, as a group is a habit.

#### **4.42 EXPENDITURE ON LIQUOR**

Consumption of liquor among the homeless persons is not a common phenomenon but quite a few of them consume little quantity of liquor after their work is over during the evening. Having this knowledge in mind, the expenditure made towards liquor by the homeless persons in the study area is studied very carefully. At the outset, the respondents are grouped into two groups, such as, people do not drink liquor, and people who drink liquor. Then the persons who drink liquor are grouped into four groups based on their expenditure on liquor, such as monthly expenditure for liquor Rs.<50, 51-100, 101-200, and >200, and are clubbed with various income group categories for analysis. The results are presented in Table 4.40 and Fig. 4.46.

The table explains that there are about half of the respondents (46 per cent) never drink at all. Of the total persons who drink liquor (165), half of them (50.90 per cent) spend monthly Rs. 101-200, whereas little more than quarter of the respondents (27.27 per cent) spend Rs. 51-100, about one-fifth of them (18.18 per cent) spend Rs>200, and a very meager persons (3.65 per cent) spend Rs. < 50 per month for this purpose.

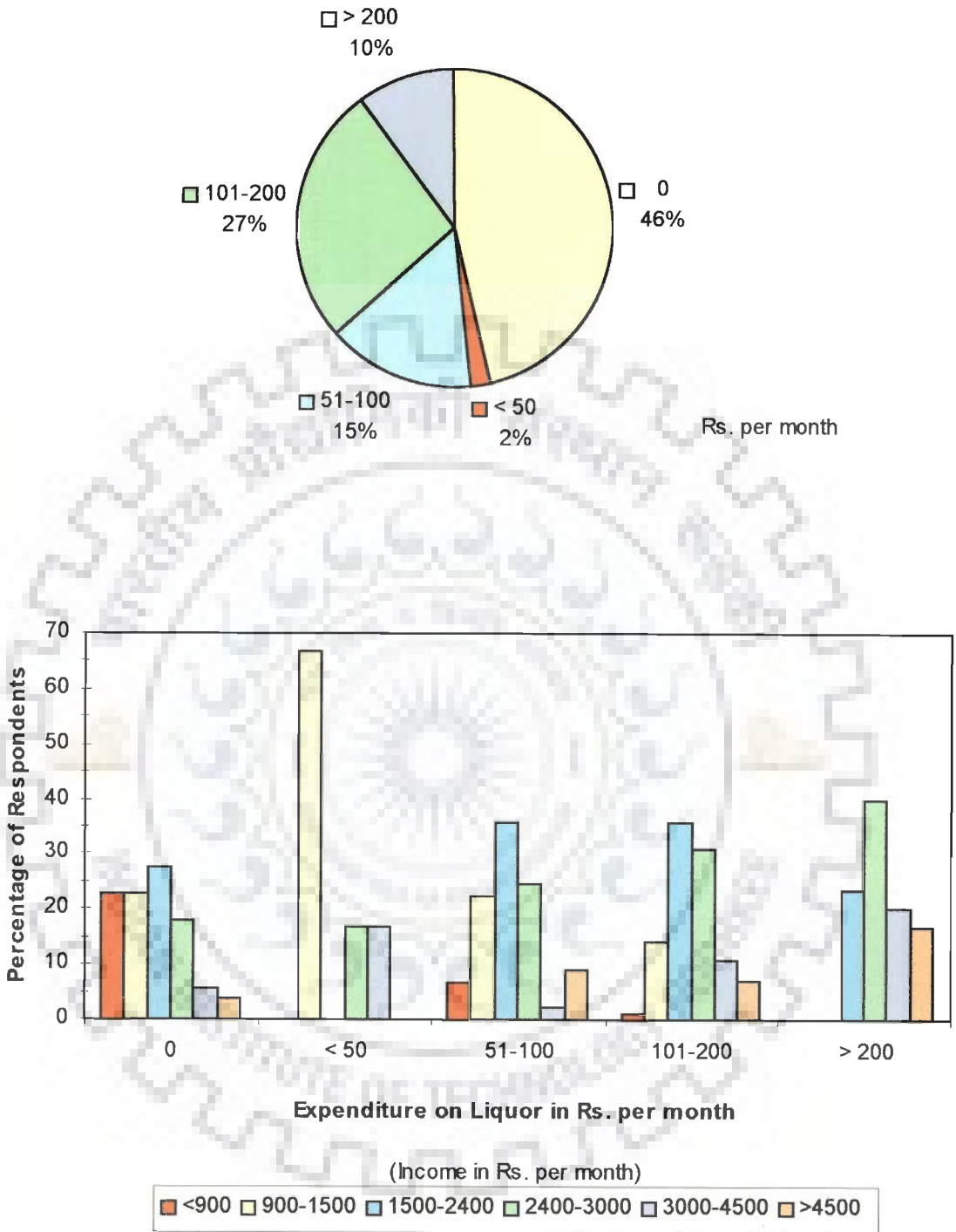
**Table 4.40: Expenditure on Liquor**

(Rs. per month)

S.No.	Income per month	1	Expenditure on Liquor					Grand Total 1+6	Percent (%)
			2	3	4	5	6		
			0	< 50	51-100	101-200	> 200		
1	<900	32 (22.69)	-	3 (6.66)	1 (1.19)	-	4 (2.42)	36	12.00
2	900-1500	32 (22.69)	4 (66.66)	10 (22.22)	12 (14.28)	-	26 (15.75)	58	19.00
3	1500-2400	39 (27.65)	-	16 (35.58)	30 (35.73)	7 (23.33)	53 (32.14)	92	30.00
4	2400-3000	25 (17.76)	1 (16.67)	11 (24.44)	26 (30.95)	12 (40.00)	50 (30.30)	75	24.50
5	3000-4500	8 (5.67)	1 (16.67)	1 (2.22)	9 (10.71)	6 (20.00)	17 (10.30)	25	8.00
6	>4500	5 (3.54)	-	4 (8.88)	6 (7.14)	5 (16.67)	15 (9.09)	20	6.50
	<b>Total</b>	<b>141</b> (100.00)	<b>6</b> {3.65} (100.00)	<b>45</b> {27.27} (100.00)	<b>84</b> {50.90} (100.00)	<b>30</b> {18.18} (100.00)	<b>165</b> {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>46.00</b>	<b>2.00</b>	<b>15.00</b>	<b>27.00</b>	<b>10.00</b>		<b>100.00</b>	

Figure in {...} denotes percentage to be total of Column No. 6





**Income Group wise Expenditure on Liquor**

**FIG. 4.46: EXPENDITURE ON LIQUOR**

Source: Primary Survey, September 2001

The table also explains that both groups of persons (persons who drink or do not drink) are increasing along with increase in their monthly income upto Rs. 1500-2400, and then started to observe the reverse trend. Similar trend is also observed among the various expenditure groups (Rs < 50, 50-100, 101-200, and >200 per month) who spend money for liquor.

The Investigator done further discussion with the respondents about their spending on liquor and observed the following:

1. They used to procure very poor quality of country liquor at cheaper cost.
2. They used to drink liquor to get relief from tiredness from the work, to get accustomed to sleep over the pavements and other open spaces, and to bear the extreme bad weather (foggy winter, sunny summer and monsoon seasons).

#### **4.43 EXPENDITURE ON DRUGS**

It has been observed that very meager persons (5 per cent of the total samples) are taking drugs, such as, heroines, brown sugar, smacks, etc during evening. Among them, it has been also observed that very few cases have these drugs during the daytime and sleep over the pavement and other open spaces.

#### **4.44 EXPENDITURE ON CINEMA**

Cinema is one of the major important media's, which give pleasure, creating awareness, work as a catalyst for social changes, imparting knowledge, etc. But for homeless persons, it is used for only passing time. The homeless persons usually go to the cinema halls where the cost is very less, and that too

the lowest category of charges and sometimes watch the film and sometime just pass their time because most of homeless persons used to go the halls after having intoxication. Having these knowledge in mind, the Investigator carefully studied the expenditure made for cinema by the respondents. At the outset, the persons who go for cinema and not going for cinema hall are grouped separately. Then, the persons, who are having the habit of going to the cinema halls, are classified in accordance with their monthly expenditure made for the same, i.e., Rs. < 50, 51-100, 101-200, > 200 and clubbed these monthly expenditure along with their respective income groups for analysis. The results of the analysis are presented in Table 4.41 and Fig. 4.47. The table reveals that about nine - tenth of the respondents (88 per cent) never go to cinema hall at all. Of the total persons who are going to cinema hall (37), about two-third of them (62.16 per cent) spend Rs 51-100 per month for cinema, and rest of them are almost evenly distributed among the rest of the expenditure groups i.e. Rs. <50, 101-200 and > 200 per month.

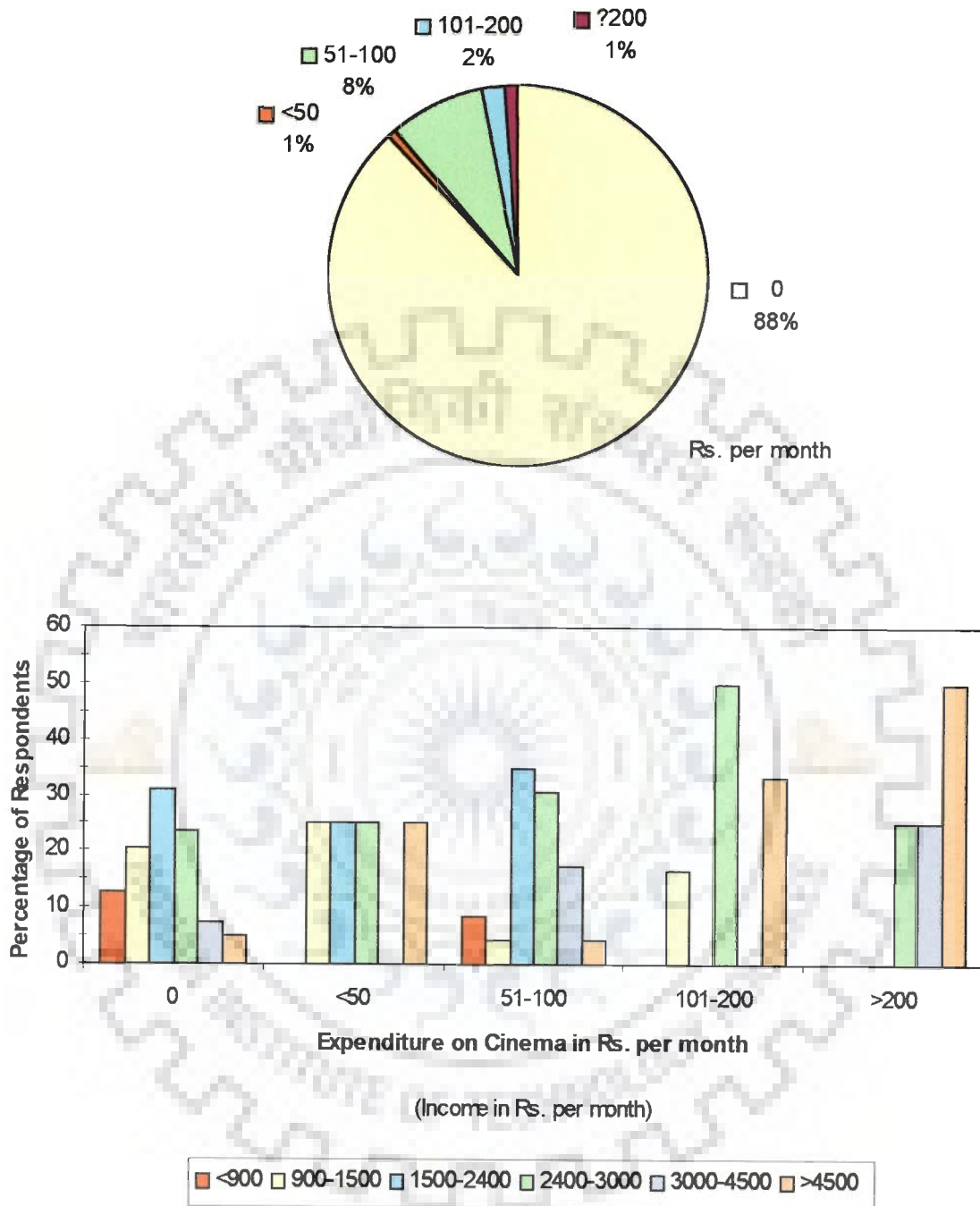
The table also reveals that both groups (persons go to cinema hall and not to go to cinema halls) are increasing along with increase in monthly income of Rs. 1500 – 2400, and then started to observe the reverse trend. Similar observation is also found among various expenditure groups, who spend money for cinema.

**Table 4.41: Expenditure on Cinema**

(Rs. per month)

S.No.	Income per month	Expenditure on Cinema						Grand Total 1+6	Percent (%)
		1	2	3	4	5	6		
		0	<50	51-100	101-200	>200	Total 2+3+4+5		
1	<900	34 (12.63)	-	2 (8.69)	-	-	2 (5.40)	36	12.00
2	900-1500	55 (20.44)	1 (25.00)	1 (4.34)	1 (16.67)	-	3 (8.10)	58	19.00
3	1500-2400	83 (30.85)	1 (25.00)	8 (34.78)	-	-	9 (24.32)	92	30.00
4	2400-3000	63 (23.45)	1 (25.00)	7 (30.43)	3 (50.00)	1 (25.00)	12 (32.43)	75	24.50
5	3000-4500	20 (7.43)	-	4 (17.39)	-	1 (25.00)	5 (13.54)	25	8.00
6	>4500	14 (5.20)	1 (25.00)	1 (4.34)	2 (33.33)	2 (50.00)	6 (16.21)	20	6.50
	<b>Total</b>	269 (100.00)	4 { 10.81} (100.00)	23 {62.16} (100.00)	6 {16.22} (100.00)	4 {10.81} (100.00)	37 {100.00} (100.00)	306	100.00
	<b>Percent (%)</b>	88.00	1.00	8.00	2.00	1.00		100.00	

Figure in {...} denotes percentage to be total of Column No. 6



**Income Group wise Expenditure on Cinema**

**FIG. 4.47 : EXPENDITURE ON CINEMA**

Source: Primary Survey, September 2001

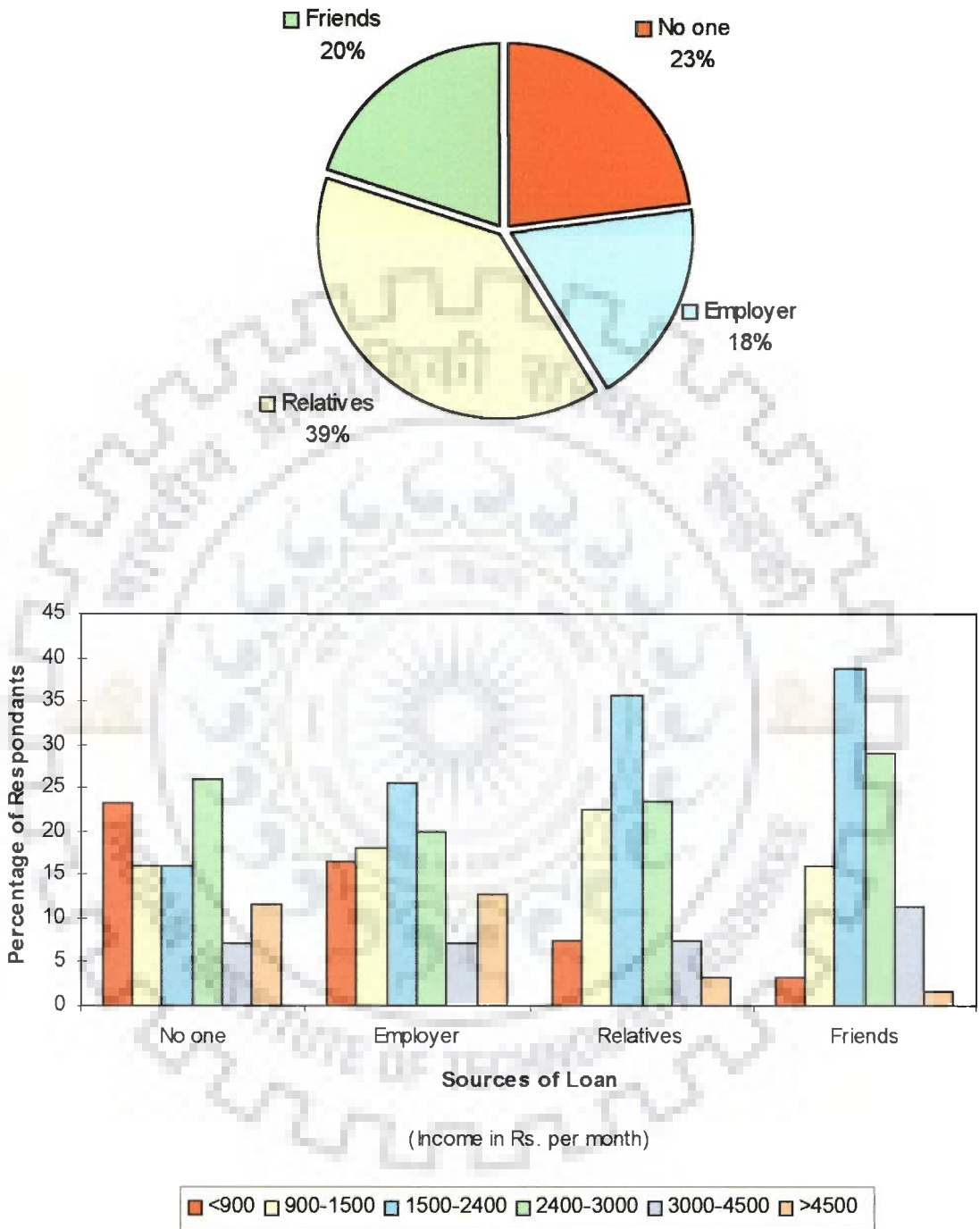
#### 4.45 SOURCES OF LOAN

The homeless persons of the study area generally take loans either from his/her employer, relatives or friends, because their circle is very much limited within themselves. They cannot enjoy the loan facilities offered by the financial institutions since they do not have identity, security and also lacking awareness about the same. Having this knowledge in mind, the Investigator studied the sources of loan among the respondents. At first, the respondents are grouped into two groups based on persons who take loan and not to take loans at all. Further, the persons who take loan are classified into three groups based on the sources of loans, such as from employer, from relative and from friends, and then they are incorporated along with respective income groups for analysis. The results of the analysis are presented in Table 4.42 and Fig. 4.48. The table explains that about quarter of the respondents (23 per cent) never take loan at all. Of the persons who take loan (237), more than half of them (50.64 per cent) take loan from their relatives who also live on the pavement in the city who reside either with them or reside in some other pockets of the city. Rests of them take loan either from their employer or from their friends and are also almost equally distributed among other sources, such as employer and friends. The table further explains that the person confined in various income groups who are not at all taking loans are increasing along with increase in monthly income upto Rs. 2400 – 3000, and then started to observe the reverse trend. In case of persons who take loan though it observe the same trend, it is increasing along with monthly

*Table 4.42: Sources of Loan*

S.No	Income per month	Sources of Loan					Grand Total 1+5	Percent (%)
		1	2	3	4	5		
		No one	Employer	Relatives	Friends	Total 2+3+4		
1	<900	16 (23.18)	9 (16.36)	9 (7.50)	2 (3.22)	20 (8.73)	36	12.00
2	900-1500	11 (15.94)	10 (18.18)	27 (22.5)	10 (16.12)	47 (19.86)	58	19.00
3	1500-2400	11 (15.94)	14 (25.45)	43 (35.83)	24 (38.70)	81 (34.17)	92	30.00
4	2400-3000	18 (26.08)	11 (20)	28 (23.33)	18 (29.03)	57 (24.05)	75	24.50
5	3000-4500	5 (7.27)	4 (7.27)	9 (7.5)	7 (11.29)	20 (8.43)	25	8.00
6	>4500	8 (11.59)	7 (12.74)	4 (3.34)	1 (1.64)	12 (5.06)	20	6.50
	<b>Total</b>	69 (100.00)	55 {23.20} (100.00)	120 {50.64} (100.00)	62 {26.16} (100.00)	237 {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	23.00	18.00	39.00	20.00		<b>100.00</b>	

Figure in {...} denotes percentage to be total of Column No. 5



**Income Group wise Sources of Loan**

**FIG. 4.48 : SOURCES OF LOAN**

Source: Primary Survey, September 2001



income upto Rs 1500-2400, and then started to observe the reverse trend, irrespective of different sources, such as, employer, relatives and friends.

#### 4.46 SAVINGS

Saving is the most important parameter, which lead to increase in capital formation. Increase in capital formation lead to increase in investment, lead to increase in production, trade & commerce, which lead to higher growth of the economy. At the lower level, among the homeless persons, saving is purely depends upon their income and expenditure. Persons live alone saves more amount of money and send back to their native places to support their families. They spend very little on themselves by living on the streets, staying close to work place, etc., and thus saving cost of comminuting, cooking own food, working all seven days for more than eight hours a day and taking least care of their health. In some cases, the people spend whatever they earn the same day, which results into no saving at all.

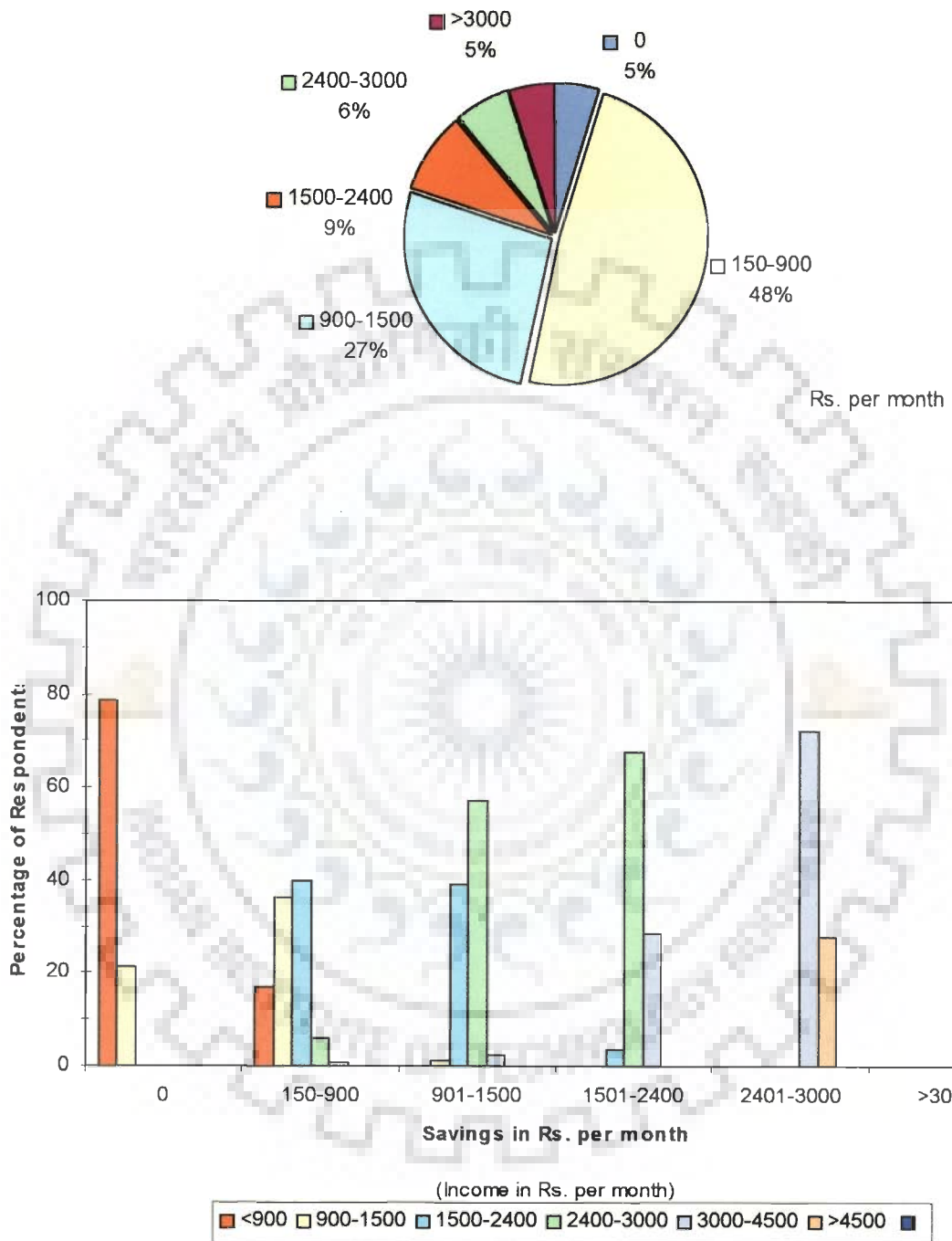
Having these knowledge in mind, the Investigator studied the savings of the homeless persons in this investigation and grouped their savings under different categories, such as persons having savings from Rs. 150 – 900, 901 – 1500, 1501 – 2400, 2401 – 3000, and > Rs. 3000 per month for analysis, and the results are presented in Table 4.43 and Fig. 4.49. The table explains that most of the respondents (95 per cent) are having savings, and only a few persons (5 per cent) never save money at all. Of the total persons who save money (292), half

Table 4.43: Saving

(Rs. per month)

S.No.	Income per month	Saving							Grand Total 1+7	%age
		1	2	3	4	5	6	7		
		0	150-900	900-1500	1500-2400	2400-3000	>3001	Total 2+3+4+5+6		
1	<900	11 (78.57)	25 (16.89)	-	-	-	-	25 (8.56)	36	12.00
2	900-1500	3 (21.43)	54 (36.48)	1 (1.21)	-	-	-	55 (18.86)	58	19.00
3	1500-2400	-	59 (39.88)	32 (39.02)	1 (3.57)	-	-	92 (31.50)	92	30.00
4	2400-3000	-	9 (6.08)	47 (57.31)	19 (67.85)	-	-	75 (25.68)	75	24.50
5	3000-4500	-	1 (0.67)	2 (2.46)	8 (28.58)	13 (72.22)	1 (6.25)	25 (8.56)	25	8.00
6	>4500	-	-	-	-	5 (27.78)	15 (93.75)	20 (6.84)	20	6.50
	<b>Total</b>	<b>14</b> (100.00)	<b>148</b> {50.68} (100.00)	<b>82</b> {28.08} (100.00)	<b>28</b> {9.58} (100.00)	<b>18</b> {6.18} (100.00)	<b>16</b> {5.48} (100.00)	<b>292</b> {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>5.00</b>	<b>48.00</b>	<b>27.00</b>	<b>9.00</b>	<b>6.00</b>	<b>5.00</b>		<b>100.00</b>	

Figure in {...} denotes percentage to be total of Column No. 7



**Income Group wise Savings**

**FIG. 4.49: SAVINGS**

Source: Primary Survey, September 2001

of them (50.68 per cent) save very less, i.e. save Rs. 150 – 900 per month. Little higher than one – fourth of the total saving persons (28 per cent) save Rs. 901 – 1500 per month. About one – tenth (9.58 per cent ) of them save Rs. 1501 – 2400 per month. Followed by, six per cent of them save Rs. 2401 – 3000 per month, and rest of them (5.48) are accounted in the category of saving Rs. > 3001 per month. It has been very clearly observed from the table that the persons who save money are decreasing along with the amount of saving increases. This finding also reflects the amount of income earning, i.e., more number of persons confined in the least income group categories (c.r.f. Table 4.1), In this particular segment of the community (homeless personal) it seems, income is the only parameter, which decide the savings too because expenditure is very negligible.

#### **4.47 IMPROVEMENT IN STANDARD OF LIVING**

Every one wants to have better life, by improving their standard of living, by earning higher income and subsequently accumulation of higher quality of goods in day-to-day living, etc. The homeless persons are also not an exceptional one in this regard. The Investigator conducted the study about the improvement of the standard of living of the respondents. At the outset, the persons are grouped into two categories such as, want improvement in their lives, and do not want to have improvement. Further, the persons who want to improve their lives are classified into two, based on their willingness, such as through education and also through imparting vocational training to them, and

these groups are incorporated along with their respective income groups for analysis. The results are presented in Table 4.44 and Fig. 4.50. The table explains that about two-third of the respondents (63 per cent) do not want to improve their standard of living, and are satisfied. Of the total persons who want to improve their standard of living (113), about two-third of them (65.48 per cent) opined that they can improve their standard of living by imparting vocational training, and are ready for taking the same. The rest of them (34.51 per cent) opined that if they get good education, they can improve their standard of living.

The table also explains that the persons confined in both groups (want to improve their standard of living and not to improve their standard of living) are increasing along with increase in income to the certain extent, i.e., the persons who want to improve their standard of living upto monthly income Rs. 1500-2400 and the other groups upto Rs. 2400-3000, and then started to observe the reverse trend. Similar observation is also observed between two different groups who want to have either education or vocational training for their improvement.

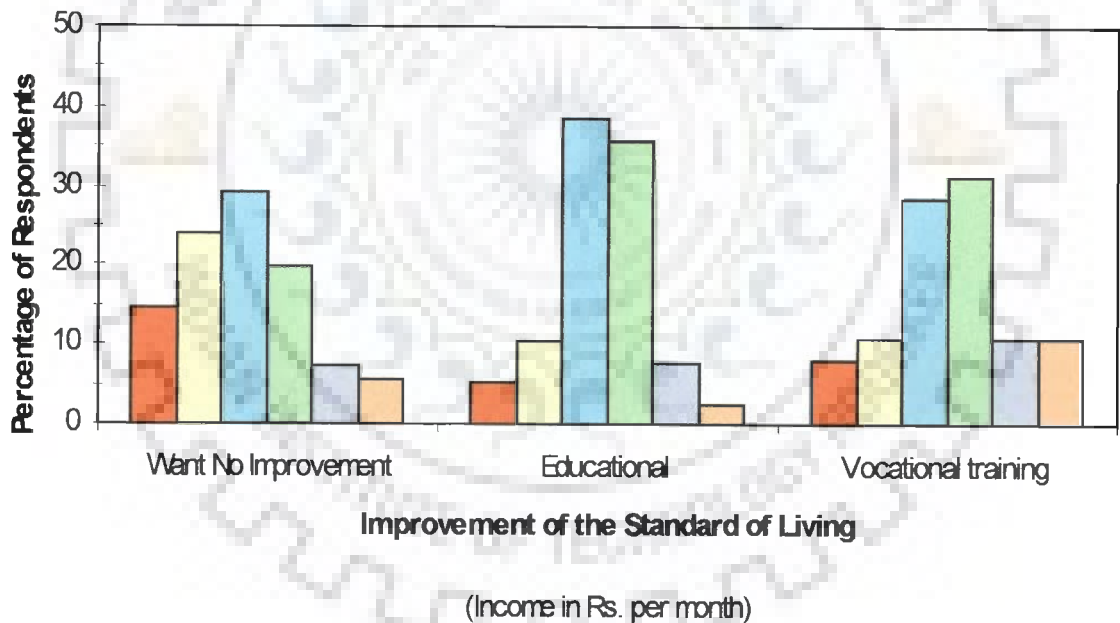
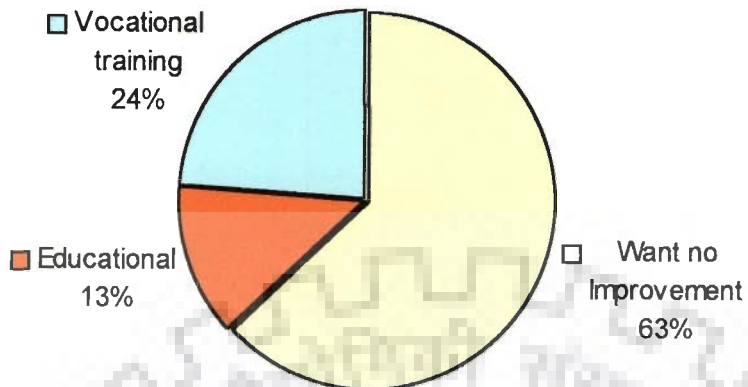
The investigator also conducted further discussion among the respondents who do not require further improvement in their lives and observed the following:

1. Lack of awareness among these segments, which induce them to satisfy themselves in the same position what they are at present.
2. This tendency lead them lethargy among them and arrest their thinking process to develop themselves.

*Table 4.44: Improvement of the Standard of Living*

S. No.	Income per month	Improvement of the Standard of Living				Grand Total 1+4	Percent (%)
		1	2	3	4		
		Wont. No Improvement	Educational	Vocational training	Total 2+3		
1	<900	28 (14.50)	2 (5.12)	6 (8.10)	8 (7.07)	36	12.00
2	900-1500	46 (23.83)	4 (10.25)	8 (10.81)	12 (10.61)	58	19.00
3	1500-2400	56 (29.05)	15 (38.49)	21 (28.39)	36 (31.85)	92	30.00
4	2400-3000	38 (19.68)	14 (35.89)	23 (31.08)	37 (32.78)	75	24.50
5	3000-4500	14 (7.25)	3 (7.69)	8 (10.81)	11 (9.73)	25	8.00
6	>4500	11 (5.69)	1 (2.56)	8 (10.81)	9 (7.96)	20	6.50
	<b>Total</b>	193 (100.00)	39 {34.51} (100.00)	74 {65.48} (100.00)	113 {100.00} (100.00)	306	<b>100.00</b>
	<b>Percent(%)</b>	63.00	13.00	24.00		100.00	

Figure in {...} denotes percentage to be total of Column No. 4



Legend for Income Group wise Improvement in Standard of living:

- <900
- 900-1500
- 1500-2400
- 2400-3000
- 3000-4500
- >4500

**Income Group wise Improvement in Standard of living**

**FIG. 4.50 : IMPROVEMENT IN STANDARD OF LIVING**

Source: Primary Survey, September 2001

3. No catalyst is available to direct them to have a better life among themselves since almost every one is living with the same thinking process.

#### **4.48 FREQUENCY OF HOME VISITS**

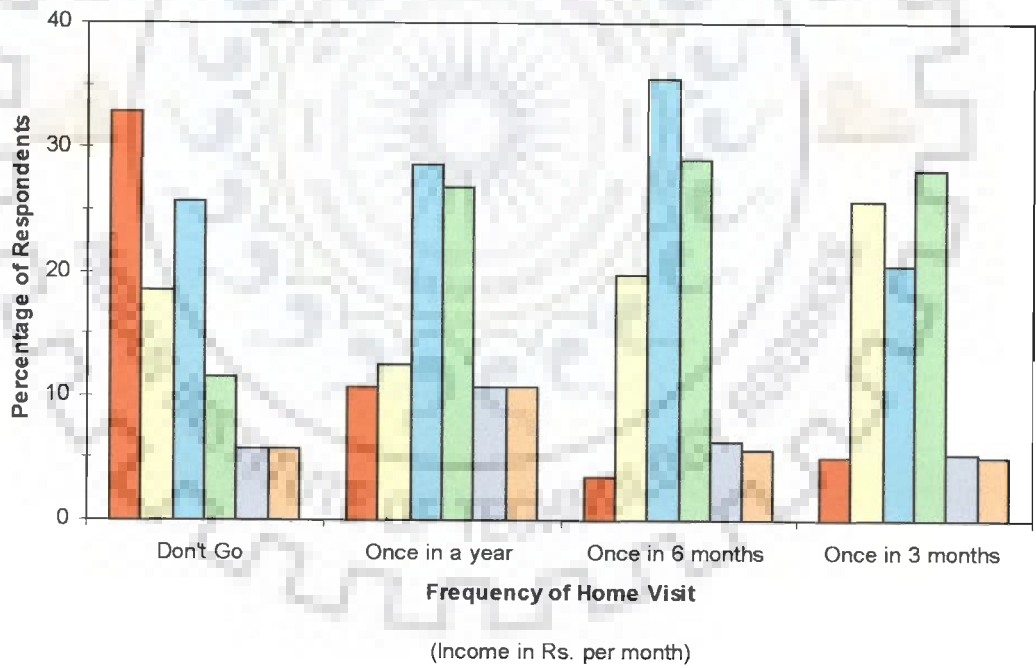
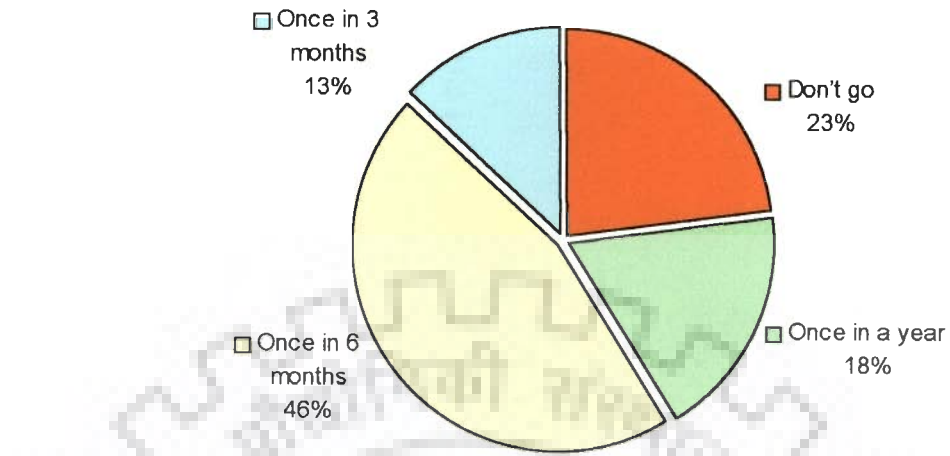
The Investigator has considered frequency of home visits as one of the variables in this present investigation since the Investigator has more knowledge about their activities for a quite a long period. In fact, most of the homeless persons used to visit their respective native place few times in a year for either giving money to their kith's and kin, or for joining any other social functions and so on. Having this knowledge in mind, the Investigator interviewed the respondents about their home visit and its duration. The data are very carefully processed. At the outset, the entire respondents are grouped into two groups, such as persons not to visit the native place, and persons visit the native places. Then, the persons who visit their native places are grouped into three groups, such as, persons visit their native places once in a year, once in six months and once in three months, and incorporated them along with their respective income groups for analysis. The results are presented in Table 4.45 and Fig. 4.51. The table explains that about a quarter of the total respondents (23 per cent) never visit their native places at all. Of the total persons who visit their native places, about three-fifth of them visit once in six months. Followed by, about one-fourth of them (23.72 per cent) visit once in a year, and about one-sixth of them (16.52 per cent) visit once in three months.



**Table 4.45: Frequency of Home Visit**

S.No.	Income per month	Frequency of Home Visit					Grand Total 1+5	Percent (%)
		1	2	3	4	5		
		Don't Go	Once in a year	Once in 6 months	Once in 3 months	Total 2+3+4		
1.	<900	23 (32.85)	6 (10.71)	5 (3.54)	2 (5.12)	13 (5.50)	36	12.00
2	900-1500	13 (18.57)	7 (12.5)	28 (19.85)	10 (25.64)	45 (19.07)	58	19.00
3	1500-2400	18 (25.71)	16 (28.59)	50 (35.49)	8 (20.54)	74 (31.37)	92	30.00
4	2400-3000	8 (11.45)	15 (26.78)	41 (29.07)	11 (28.20)	67 (28.38)	75	24.50
5	3000-4500	4 (5.71)	6 (10.71)	9 (6.38)	6 (5.38)	21 (8.89)	25	8.00
6	>4500	4 (5.71)	6 (10.71)	8 (5.67)	2 (5.12)	16 (6.79)	20	6.50
	<b>Total</b>	70 (100.00)	56 {23.72} (100.00)	141 {59.74} (100.00)	39 {16.52} (100.00)	236 {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	23.00	18.00	46.00	13.00		<b>100.00</b>	

Figure in { ... } denotes percentage to be total of Column No. 5



Legend for Income Group wise Frequency of Home Visits:  
 ■ <900 ■ 900-1500 ■ 1500-2400 ■ 2400-3000 ■ 3000-4500 ■ >4500

**Income Group wise Frequency of Home Visits**

**FIG.4.51 : FREQUENCY OF HOME VISITS**

Source: Primary Survey, September 2001

The table also explains that persons confined in both categories (people visit their native place, and not to visit their native place) are increasing along with monthly income upto Rs. 1500 – 2400, and started to observe the reverse trend. Similar trend is also observed among the different group of persons who visit their native places on different occasions.

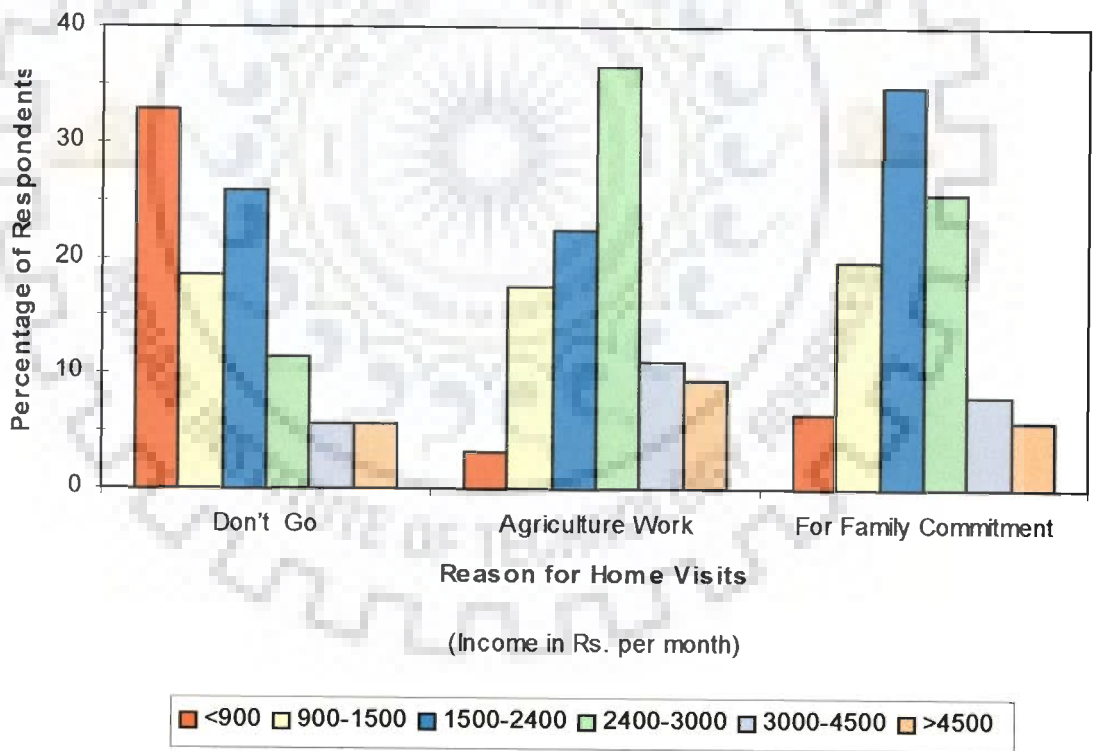
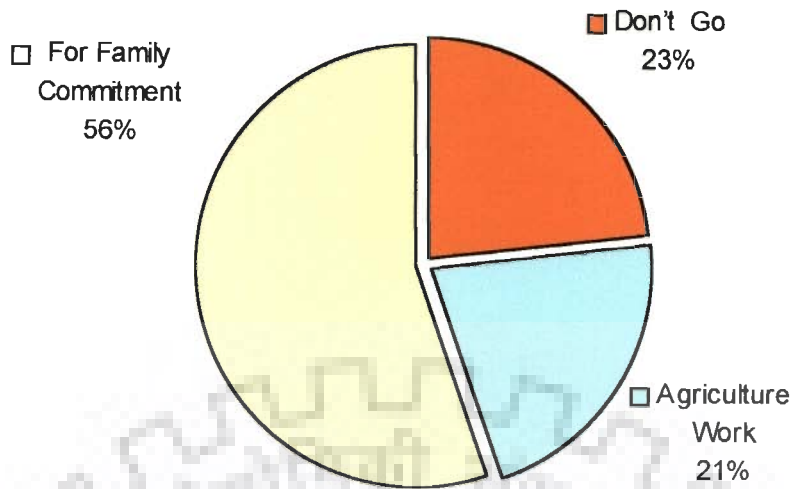
#### **4.49 REASON FOR HOME VISITS**

Majority of the homeless persons of the study area go to their native places and returned to the city due to several reasons. Having this knowledge in mind, the Investigator studied the reason of their native place visit. At the outset, the respondents are grouped into groups, such as, persons visit their native place, and persons not visit their native places. Once more the persons who visit their native places are further divided into two groups, such as, agriculture work and family commitment, based on the reasons and are incorporated along with their respective income groups for analysis. The results are presented in Table 4.46 and Fig. 4.52. The table illustrates that about a quarter of the respondents (23 per cent) never visit their native places at all. Of the total persons who visit their native places (236), about three-fourth of them (73.30 per cent) visit their native places due to family commitment, and rest of them (26.69 per cent) visit their native places due to performing agricultural operation.

*Table 4.46: Reason for Home Visits*

S. No.	Income per month	Reason for Home Visit				Grand Total 1+4	Percent (%)
		1 Don't Go	2 Agriculture Work	3 For Family Commitment	4 Total 2+3		
1	<900	23 (32.85)	2 (3.17)	11 (6.35)	13 (5.50)	36	12.00
2	900-1500	13 (18.57)	11 (17.46)	34 (19.65)	45 (19.06)	58	19.00
3	1500-2400	18 (25.71)	14 (22.22)	60 (34.68)	74 (31.39)	92	30.00
4	2400-3000	8 (11.45)	23 (36.50)	44 (25.45)	67 (28.38)	75	24.50
5	3000-4500	4 (5.71)	7 (11.11)	14 (8.09)	21 (8.89)	25	8.00
6	>4500	4 (5.71)	6 (9.54)	10 (5.78)	16 (6.78)	20	6.50
	<b>Total</b>	70 (100.00)	63 {26.69} (100.00)	173 {73.30} (100.00)	236 {100.00} (100.00)	306	100.00
	<b>Percent(%)</b>	23.00	21.00	56.00		100.00	

Figure in {...} denotes percentage to be total of Column No. 4



**Income Group wise Reason for Home Visits**

**FIG. 4.52 : REASON FOR HOME VISITS**

Source: Primary Survey, September 2001

The table also illustrates that persons confined in both groups (person visit their native place and not visiting their native places) are increasing along with increase in their income categories upto certain extent, i.e. monthly income upto Rs. 1500 – 2400, and then started to observe the reverse trend.

The Investigator conducted further discussion with the respondents about their native place visit and observed the following regarding to the same. They are:

1. Few people used to go to their native place during their festival seasons and social functions.
2. Few persons used to go to their native places to have a look at their own people, and for giving money to them.
3. Few people used to go to their native places during the period of agricultural operations.
4. The persons who do not go to their native place are not at all interested to maintain any relationship with their kith and kin's.

#### **4.50 PRIORITY IN LIFE**

The homeless persons used to face uncertainty at anytime in their day-to-day life since they do not have anything permanent in their living. For example, they have to search for a job as soon as they get up in the morning. Since employment opportunities are also very scarce, they are forced to get up early and search for the same. As a consequence, they are also forced to live wherever job prosperity is available. Since employment opportunities are

available to them on purely temporarily basis, it becomes so uncertain to several persons, which lead to even unemployment among them for some time. Having this knowledge in mind, the Investigator had conducted a detailed study among the respondents about their priority in life, and the results are presented in Table 4.47 and Fig. 4.53. The table elucidates that more than two-third of the respondents (69 per cent) prefer employment as their first priority. Followed by little more than one-fourth of the population (27 per cent) prefer shelter as their first priority, and rest (very meager, i.e., 4 per cent) of them prefer water & sanitation and education as their first priority.

The table very clearly shows that most of the homeless persons are having thrust for employment opportunities. It seems that they are not getting much employment opportunities every day, and uncertainty prevails.

The number of respondents who showed willingness as employment and shelter as their first priority are increasing along with increase in monthly income to the certain extent (for employment upto Rs. 1500 –2400, and for shelter Rs. 2400-3000), and then started to decrease.

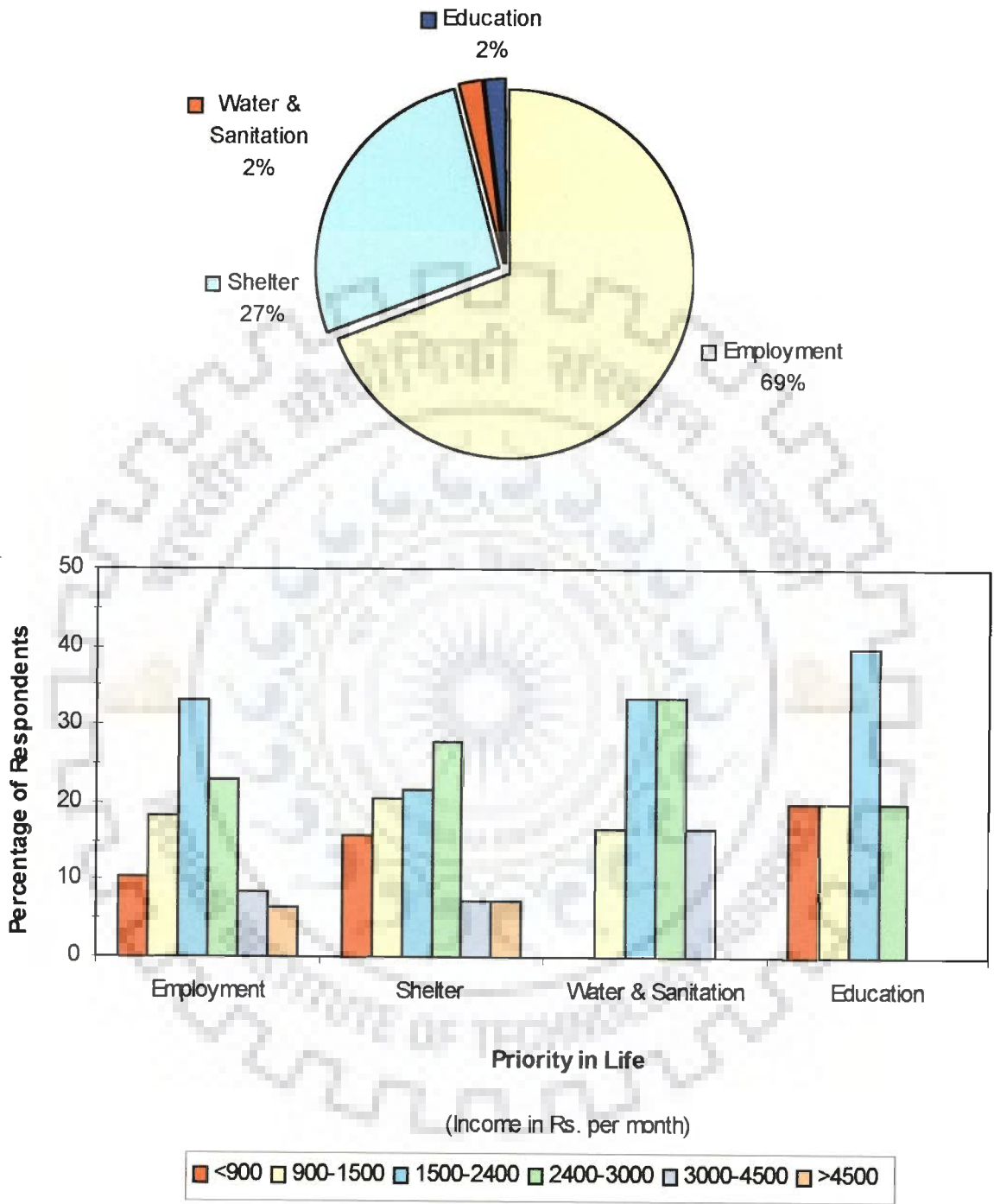
The Investigator had conducted further discussion with the respondents to get more information about the reason for first priority, and observed the following. They are:

1. A segment of the community, who earn little more income want to have shelter, and also they prefer shelter. Since non availability of housing is prevalent in the system as per their affordability, they are forced to live on the street.

*Table 4.47: Priority in Life*

<i>S. No.</i>	<i>Income per month</i>	<i>Priority in Life</i>				<i>Total</i>	<i>Percent (%)</i>
		<i>Employment</i>	<i>Shelter</i>	<i>Water &amp; Sanitation</i>	<i>Education</i>		
1	<900	22 (10.37)	13 (15.66)	-	1 (20.00)	36	12.00
2	900-1500	39 (18.39)	17 (20.48)	1 (16.67)	1 (20.00)	58	19.00
3	1500-2400	70 (33.01)	18 (21.68)	2 (33.33)	2 (40.00)	92	30.00
4	2400-3000	49 (23.14)	23 (27.74)	2 (33.33)	1 (20.00)	75	24.50
5	3000-4500	18 (8.49)	6 (7.22)	1 (16.67)	-	25	8.00
6	>4500	14 (6.60)	6 (7.22)	-	-	20	6.50
	<b>Total</b>	<b>212</b> (100.00)	<b>83</b> (100.00)	<b>6</b> (100.00)	<b>5</b> (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent(%)</b>	<b>69.00</b>	<b>27.00</b>	<b>2.00</b>	<b>2.00</b>	<b>100.00</b>	





**Income Group wise Priority in Life**

**FIG. 4.53 : PRIORITY IN LIFE**

Source: Primary Survey, September 2001

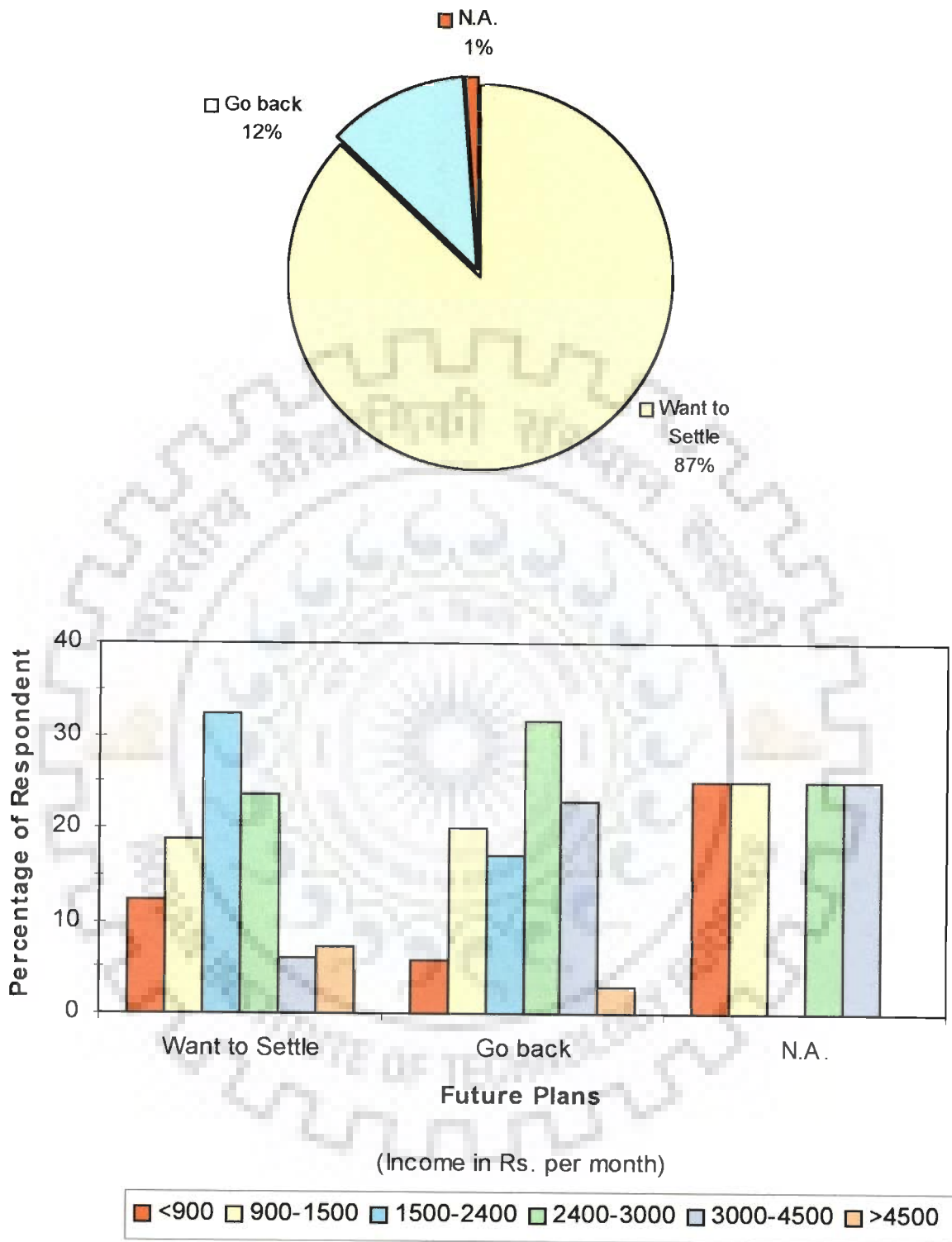
2. Since only very meager persons of the respondents (2 per cent) prefer sanitation and water, it shows that almost all persons could manage their required facilities from the existing system.
3. Very meager persons (2 per cent) show their priority for education since their basic needs (job, shelter) are not met.
4. No person has responded towards health a first priority, since these people ignore their health and work till their physic allow them.

#### **4.51 FUTURE PLAN**

Generally, the homeless are uncertain about their future because nothing is in their hands, even if they want to go back, the prevailing socio-economic conditions in the rural areas (native place) do not permit them to do so. Since about two-third of the respondent's i.e., 61 per cent (c.r.f. table 4.5). families are staying at their native place, and the respondents are staying alone on the pavements of the study area, the Investigator included this variable also in this study for investigation. The results are presented in Table 4.48 and Fig. 4.54. The table explains that about nine-tenth (87 per cent) of the respondents, opinioned that they want to settle in the study area inspite of facing all types of socio-economic evils in their day-to-day living in the city. Only a meager (12 per cent) respondents opinioned that they may go back to their native place after some time that too after making good savings from Delhi. It is also observed that the availability of members among the persons who want to settle in Delhi is increasing along with increase in monthly income upto Rs. 1500 – Rs. 2400 and

*Table 4.48: Future Plans*

<i>S. No.</i>	<i>Income per month</i>	<i>Future Plans</i>			<i>Total</i>	<i>Percent (%)</i>
		<i>Want to Settle</i>	<i>Go back</i>	<i>N.A.</i>		
1	<900	33 (12.35)	2 (5.71)	1 (25.00)	36	12.00
2	900-1500	50 (18.75)	7 (20)	1 (25.00)	58	19.00
3	1500-2400	86 (32.20)	6 (17.14)	-	92	30.00
4	2400-3000	63 (23.59)	11 (31.45)	1 (25.00)	75	24.50
5	3000-4500	16 (5.99)	8 (22.85)	1 (25.00)	25	8.00
6	>4500	19 (7.15)	1 (2.85)	-	20	6.50
	<b>Total</b>	267 (100.00)	35 (100.00)	4 (100.00)	306	100.00
	<b>Percent(%)</b>	87.00	12.00	1.00	100.00	



**Income Group wise Future Plans**

**FIG. 4.54 : FUTURE PLANS**

Source: Primary Survey, September 2001

then started to observe the reverse trend, whereas, it is increased upto the monthly income of Rs. 2400 – 3000, who is having interest of going back, and then started to observe the reverse trend.

The Investigator had conducted further discussions with the respondents who are interested to go back to their native place, and found that the persons who earn little more income want to go back because they feel that they can start a business in their native place by using the savings and then they can lead a good life. Further, the Investigator also observed that a segment of the homeless person want to go back to their native place just because they want to live with their kith and kin at least during the end of their lives.

#### **4.52 AFFORDABILITY TO SHELTER**

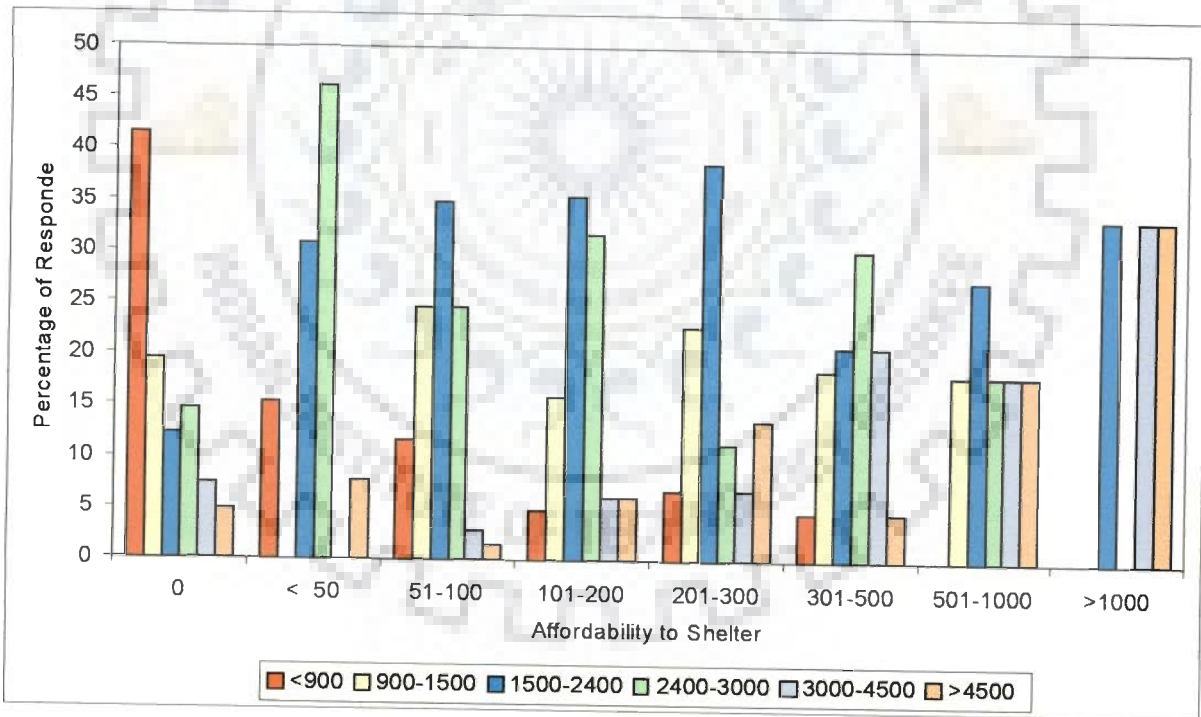
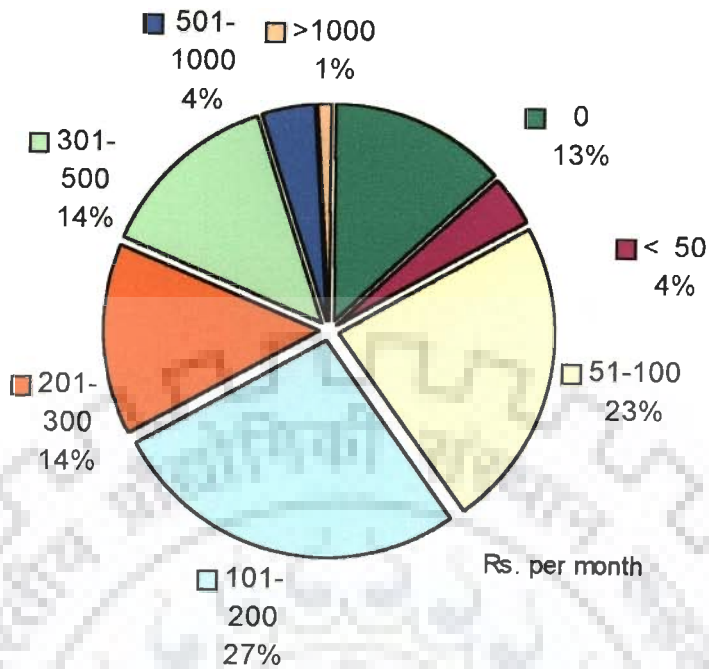
The Investigator conducted the thorough investigation about the affordability of the homeless persons in the study area towards shelter. At the outset, the persons who have affordability and the persons who do not have affordability to spend for shelter are segregated. Followed by, the persons who have affordability to spend for shelter are grouped into various groups based on the affordability per month, such as Rs < 50, 51-100, 101-200, 201-300, 301-500, 501-1000, and > 1000 and are incorporated along with their respective income groups for analysis. The results are presented in Table 4.49 and Fig. 4.55. The table illustrates that almost all persons want to have shelter but 87 per cent of them expressed their affordability to shelter, but a meager amount of persons (13 per cent) state that they cannot have affordability to

**Table 4.49: Affordability to Shelter**

(Rs. per month)

S.No.	Income per month	Affordability to Shelter									Grand Total 1+9	Percent (%)
		1	2	3	4	5	6	7	8	9		
		0	< 50	51-100	101-200	201-300	301-500	501-1000	>1000	Total 2+3+4+5+6+7+8		
1	<900	.17 (41.46)	2 (15.38)	8 (11.59)	4 (4.88)	3 (6.82)	2 (4.65)	-	-	19 (7.17)	36	12.00
2	900-1500	8 (19.51)	-	17 (24.64)	13 (15.85)	10 (22.73)	8 (18.61)	2 (18.18)	-	50 (18.87)	58	19.00
3	1500-2400	5 (12.20)	4 (30.77)	24 (34.78)	29 (35.37)	17 (38.64)	9 (20.93)	3 (27.28)	1 (33.33)	87 (32.83)	92	30.00
4	2400-3000	6 (14.63)	6 (46.16)	17 (24.64)	26 (31.70)	5 (11.36)	13 (30.23)	2 (18.18)	-	69 (26.04)	75	24.50
5	3000-4500	3 (7.32)	-	2 (2.90)	5 (6.10)	3 (6.82)	9 (20.93)	2 (18.18)	1 (33.33)	22 (8.30)	25	8.00
6	>4500	2 (4.88)	1 (7.69)	1 (1.45)	5 (6.10)	6 (13.63)	2 (4.65)	2 (18.18)	1 (33.33)	18 (6.79)	20	6.50
	<b>Total</b>	<b>41</b> (100.00)	<b>13</b> {4.91} (100.00)	<b>69</b> {26.04} (100.00)	<b>82</b> {30.94} (100.00)	<b>44</b> {16.60} (100.00)	<b>43</b> {16.23} (100.00)	<b>11</b> {4.15} (100.00)	<b>3</b> {1.13} (100.00)	<b>265</b> {100.00} (100.00)	<b>306</b>	<b>100.00</b>
	<b>Percent (%)</b>	<b>13.00</b>	<b>4.00</b>	<b>23.00</b>	<b>27.00</b>	<b>14.00</b>	<b>14.00</b>	<b>4.00</b>	<b>1.00</b>		<b>100.00</b>	

Figure in {...} denotes percentage to be total of Column No. 9



**Income Group wise Affordability to Shelter**

**FIG. 4.55 : AFFORDABILITY TO SHELTER**

Source: Primary Survey, September 2001

shelter. Of the persons who show their affordability towards shelter, about one - third of them (30.94 per cent) opined that they can spend Rs. 101-200 per month. Followed by little more than quarter of them (26.04 per cent) state that they can afford Rs. 51-100 per month, about one-sixth of them (16.60 and 16.23 per cent) from each category of income Rs. 201-300 per month, and Rs. 301 – 500 per month it can afford money for housing. About one-twentieth (4.98 per cent) of them can afford Rs. <50 per month, and about another set of one – twentieth (4.69 per cent) can afford Rs. 501-1000 per month, and a very meager persons (1.13 per cent) can afford Rs. >1000 per month towards shelter.

The table also illustrates that the person who have affordability is increasing along with income to the certain extent, i.e., monthly income Rs. 1501-2400, and then started to observe the reverse trend. Similar trend is also observed among the groups whose affordability, are such as, Rs. 51-100, 101-200, 201-300, 301-500, and 501-1000. The people who opined that they cannot afford money for shelter are confined in the lowest income category.

The Investigator further conducted the discussion with the respondents in this regard and observed the following.

1. Though most of the persons among the homeless have affordability for Night Shelter, they never prefer the same since the environment of the existing Night Shelters are not suiting them and also they are located in very far off areas from their work place.



2. They do not want to spend more money for communication (by transport) for having just a stay in the Night Shelter.

#### **4.53 FINDINGS**

The survey at the grassroots level gives more insight to understand the present status of the homeless persons of the study area. The Investigator has observed several major findings based on the analytical work, and are presented as below:

1. The respondents are grouped in different income groups, such as Rs. <900, Rs. 900-1500, Rs. 1500-2400, Rs. 2400-3000, Rs. 3000-4500, and Rs. > 4500 per month, and are accounted as 12 per cent , 19 per cent , 30 per cent , 24.60 per cent , 8 per cent and 6.5 per cent respectively
2. Majority of the respondents (92 per cent) belongs to age group of 11-50 years.
3. About four-fifth (80 per cent) of the homeless persons belong to Hindu religion, and the rest of them (20 per cent) belong to Muslim religion.
4. About two- third (65 per cent) of the surveyed homeless do not have literacy at all. Of the literate persons, about 61 per cent has only primary level of education. The rest of them are scattered into middle school, high school and even very few in graduate segments.
5. About two- third (61 per cent) of the homeless persons are married but living alone in the city and left their families and children in the villages from where they migrated. About one-third (29 per cent) of the homeless persons are found unmarried, and are migrated in very young age, and

rest 10 per cent are married and staying with their families on either footpaths or in parks or in religious places, etc.

6 In almost all households across all segment of the income categories (98 per cent) patriarchial family system is followed, and a very meager respondents (2 per cent) followed matriarchial family system.

7 More than four- fifth of the population (82 per cent) are living alone, and little higher than one- tenth of the respondents (13 per cent) belong to nuclear family with four to five members. Some cases are reported that they are having more than five members in their family, and their numbers are very meager, which is accounted for only 5 per cent of the total respondents.

8 Half of the surveyed samples (50 per cent) are migrated from neighbouring socio-economic depressed state, Bihar. Followed by, another socio-economically depressed state Uttar Pradesh account for more than two-fifth (41 per cent) and 8.00 per cent belonging to Madhya Pradesh, Rajasthan, West Bengal, Assam, Gujarat and Haryana, and rest 1.00 per cent belong to the study area itself.

9 More than nine-tenth (93 per cent) of the homeless migrated due to prevailing economic evils, such as unemployment, underemployment, disguised unemployment, and poverty. A meager quantity of homeless (6 per cent) of the samples migrated due to social evils, which prevail in the system, like family disputes, divorce, death of parents, window-hood,

etc. It is also distressed to note that one per cent of the total sample persons traditionally belong to the city (study area) it self.

- 10 About half of the total respondents (46 per cent ) arrived to Delhi City since Delhi is the capital city and the nearest big city to the poverty stricken states, such as Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan and Haryana. Followed by, people arrived to Delhi since their relatives and friends were already living in Delhi, which account for relatives 37 per cent, and friends 16 per cent respectively.
- 11 About half of the respondents (43 per cent ) stay on the particular pavement since it is very nearer to their work place. Followed by, 27 per cent due to strong social ties, 15 per cent due to availability of good infrastructure facilities, 8 per cent due to peaceful environment, and 7 per cent due to safety and security.
- 12 More than two-third of the migrants came to the city along with either friends or relatives, and about one-third of the migrants came to the city alone.
- 13 More than half of the migrants (56 per cent) were doing agriculture and its allied activities in their native place. Followed by, casual labour and absolutely unemployed persons represents 12 per cent each, school dropouts by 7 per cent, business and service classes by 4.5 per cent each, and industrial labour by 2 per cent.

- 14 About two-third (61 per cent) of the total persons are having land along with shelter, and about one-third (28 per cent) having only shelter in their native places.
- 15 More than half of the respondents (55 per cent) spent their lives on the footpath and other places for about 10 years. Little more than one-fifth of the respondents (26 per cent) spent their lives on footpath and other open spaces for about 10-20 years, and one-tenth of them (10 per cent) live as homeless for more than 20 years, and another a set of about one-tenth of the samples (8 per cent) are living about a year as homeless.
- 16 More than one-fourth (26 per cent) of the persons engaged in rickshaw pulling activities, followed by one-fifth (20 per cent) in labour activities, 12 per cent in service, 14 per cent in self employed, 5 per cent hawker, 2 per cent thella pulling, 5 per cent goods rickshaw pulling, 6 per cent auto-rickshaw driving, 1 per cent rag picking and about one-tenth (9 per cent) is in begging. It also explain that more than half (53 per cent) of the population engaged in hard labour activities, such as, rickshaw pulling, labour activities, good-rickshaw pulling and thela pulling.
- 17 About ninth-tenth (89 per cent) of the homeless do not posses any kind of skill at all, and rest of them are having little skill pertaining to tailoring, driving, handicrafts, etc.
- 18 More than half of the homeless surveyed (53 per cent) are having good physic and engaged in hard labour activities. Little higher than one- third (35 per cent) are having moderate physic, and engaged mediocre activities, such as, service, self employed, and hawkers. Very meager

persons (6 per cent) are engaged in driving (Auto rickshaw and tempo), and rest of them (6 per cent) are found disabled, and are mostly engaged in begging, and rag picking. It clearly shows that ability of the persons decide their occupational functions.

- 19 More than two-fifth (41 per cent) of the population stay in same place, followed by one-sixth (16.5 per cent) of the population stay in nearby places, more than one-tenth (11.5 per cent) of the population travel upto 10 Km, and rest of them scattered over in more than 10 km distances.
- 20 About four-fifth of the respondents (79 per cent) never shift their places at all. Of the total persons shifted (65 per cent), about three-fourth of them (73.68 per cent) shifted only once in their life within the city. Followed by about one -sixth of them (15.38 per cent) shifted twice, and rest of them (10.76 per cent) shifted thrice.
- 21 Half of the homeless persons (50 per cent) used to carry their belongings along with them while even go for their routine job. About one-third (32 per cent) of the homeless keep their belongings on the pavements by putting them in iron boxes, and chain them along with iron railing of the pavement for protection. Rest of them keep their belongings in the nearby shops may be because they work for them, or have been in acquaintance with the shop keepers being in the same place for a long duration.
- 22 Less than half of the surveyed population (46 per cent) cooks their own food. Rest of them take food either from road side food stalls, which are functioning besides the road, open spaces, etc., on temporary basis

usually for just few hours. It is interesting to note that a meager per cent (3 per cent) of the sample respondents take their food from the charity organisations, and few persons (10 per cent) sparingly cook their own food.

23 More than four-fifth (81 per cent) of the total cooking persons, are using kerosene for cooking, and rest of them (19 per cent) are using fuel wood for cooking.

24 About nine-tenth of the population (88 per cent) depends on public stand posts, which include public tap (35 per cent), hand pump (44 per cent) and piao (9 per cent). Little more than one-tenth of the population (12 per cent) depend on food stalls, which are directly set up on pavement from where they have their food.

25 About four-fifth of the respondents (79 per cent) use Sulabh Suchalayas, about one-tenth of them (9 per cent) use public toilets, which include railway toilets. Another segment having number of little more than one-tenth (12 per cent) use open spaces for this purpose.

26 More than half of the respondents (52 per cent) take bath from the Sulabh Suchalayas, one of the non government organization's, which provide facilities to the homeless in connection with bathing, washing clothes, defecation, etc. About one-fourth (23 per cent) of the samples take bath from public taps, and very meager from hand pumps and public toilets. It is also reported that considerable number of women (15 per cent) takes bath from the pavements.

- 27 More than two-fifth of the respondents (43 per cent) depends on Sulabh Suclalayas, about one-third respondents (28 per cent) on public taps, about one-eighth of the respondents on pavement and hand pumps respectively.
- 28 About half of the respondents (45 per cent) prefer private doctors, while one-fourth (26 per cent) prefer government doctors, and another set of one-fourth (27 per cent) prefer collecting medicine directly from the medical stores. The persons procure medicine from the chemist and ignore the health fully are found very meager, i.e., 1.00 per cent respectively.
- 29 More than half of the surveyed respondents (56 per cent) collect the required items daily, about two-fifth of the respondents (39 per cent) collect the required items as and when it is required, and rest of them (5 per cent) collect once in a week.
- 30 About one-third of the respondents (34 per cent) are in the opinion of not having access to the Night Shelters. Another set of about one-third of the respondents (30 per cent) opinioned that they do not like the environment in the Night Shelters. About one –sixth of the respondents (16 per cent) viewed that the charges of the Night Shelter are very high. Followed by, a considerable amount of people (14 per cent) opinioned that they do not aware of the availability of the facilities, and a very meager amount of people opinioned that they do not prefer since females (counterparts) are not allowed.
- 31 More than half of the respondents (52 per cent) stay in the same place even during the monsoon season. About two-fifth of the respondents

(39 per cent) go to near by buildings, for shelter. Followed by, a meager percent of the respondents (5 per cent) make temporary shelter, and the rest of them either go to Night Shelter or under flyover to safeguard them.

32 About one - third of the homeless (28 per cent) never send money at all to their native place. Of the total persons who send money to the people at their native place (221), one – sixth of them (15.83 per cent) send money less than Rs. 300 per month, one – fifth of them (20.84 per cent) send Rs. 301 – 500 per month, two – fifth of them (40.27 per cent ) send Rs. 501 – 1000 per month, about one – fifth of them (18.09 per cent ) send Rs. 1000 – 1500 per month, and a meager persons (4.97 per cent ) send money above Rs. 1500 per month to the persons in their native place.

33 Two per cent of the respondents never spend money at all for food, they get food either from the charity organisations or from the employer where they work. Of the total persons who spend money for food, two – fifth of them (40.46 per cent) spend very little money i.e., Rs. < 600 per month for food. Followed by, little more then one – fourth of the respondents (28.42 per cent) spend between Rs. 601 and 900 per month, one-fifth of the respondents (21.07 per cent) spend Rs. 901 – 1200, and very meager amount of persons spend more than Rs. 1201 per month.

34 Only very-very meager persons of the total samples (1.63 per cent) spend very little money (less than Rs. 150 per month) for their shelter that too during the monsoon season



- 35 More than four-fifth of the respondents (82 per cent) never spend money for transportation at all, because most of them live very closer to their work place where facilities are available for their survival. Of the total person who spend money for transportation (total of 54 persons), about one-third of the respondents (31.48 per cent), spend Rs. <50 per month, about two-fifth of the respondents (38.88 per cent) spend Rs. 51-100 per month and about 15 per cent of the respondents spend Rs. 101-200, and >200 per month respectively.
- 36 About three-fifth (58 per cent) persons of the total respondents never spend money at all for their health. Of the total persons who spend money, more than half of them (57.04 per cent) spend very little money, i.e., Rs. > 50 per month for health care activities, about two-fifth of them (38.28 per cent) spend Rs. 51-100 per month, and rest of them (only 4.68 per cent) spend more than Rs. 100 per month for the same.
- 37 More than one-fourth (27 per cent) of the respondents never spend money for clothes at all. Of the total persons who spend for clothes, about half of the persons (45.98 per cent) spend Rs. <50 per month, and another a set of about half of the persons (46.44 per cent) spent Rs. 51-100 per month and a very less number of people (7.58 per cent) spend Rs. >100 per month for clothes.
- 38 About one seventh of the respondents (15 per cent) never spend money at all for bathing and defecation purposes, and use open spaces, pavements, and toilets of railway station, etc. Of the total persons who pay

little amount for bathing and toilet facilities (259), about two-fifth of them (38.24 per cent) only spend little money i.e., Rs. 2/- per day for toilet, and a meager number of persons (2.31 per cent) pay very little amount, i.e., Rs. 3/-day for bathing. About three-fifth of the respondents (59.45 per cent) use both facilities by paying Rs. 5/- per day.

39 More than one-fourth of the respondents (27 per cent) never smoke at all. Of the total persons who smoke, more than half of the respondents (54.95 per cent) spend Rs. 51-100 per month for smoking. Followed by, about one-fifth of the persons (17.56 per cent ) spend Rs. 101-150 per month, about one -sixth of the persons (15.76 per cent ) spend Rs. <50 per month, and little more than one-tenth of them (11.73 per cent ) spend Rs. >150 per month.

40 About half of the respondents (46 per cent) never drink at all. Of the total persons who drink liquor , half of them (50.90 per cent) spend monthly Rs. 101-200, whereas little more than quarter of the respondents (27.27 per cent) spend Rs. 51-100, about one- fifth of them (18.18 per cent) spend Rs>200, and a very meager persons (3.65 per cent) spend Rs. < 50 per month for this purpose.

41 It has been observed that very meager persons (5 per cent of the total samples) are taking drugs.

42 About nine - tenth of the respondents (88 per cent) never go to cinema hall at all. Of the total persons who are going to cinema hall (37), about two-third of them (62.16 per cent) spend Rs 51-100 per month for cinema, and

rest of them are almost evenly distributed among the rest of the expenditure groups i.e. Rs. <50, 101-200 and > 200 per month.

- 43 About quarter of the respondents (23 per cent) never take loan at all. Of the persons who take loan, more than half of them (50.64 per cent) take loan from their relatives who also live on the pavement in the city who reside either with them or reside in some other pockets of the city. Rests of them take loan either from their employer or from their friends and are also almost equally distributed among other sources, such as employer and friends.
- 44 Most of the respondents (95 per cent) are having savings, and only a few persons (5 per cent) never save money at all. Of the total persons who save money, half of them (50.68 per cent) save very less, i.e. save Rs. 150 – 900 per month. Little higher than one – fourth of the total saving persons (28 per cent) save Rs. 901 – 1500 per month. About one – tenth (9.58 per cent ) of them save Rs. 1501 – 2400 per month. Followed by, six per cent of them save Rs. 2401 – 3000 per month, and rest of them (5.48) are accounted in the category of saving Rs. > 3001 per month.
- 45 About two-third of the respondents (63 per cent) do not want to improve their standard of living, and are satisfied. Of the total persons who want to improve their standard of living, about two-third of them (65.48 per cent) opinioned that they can improve their standard of living by imparting vocational training, and are ready for taking the same. The rest of them

- (34.51 per cent) opined that if they get good education, they can improve their standard of living.
- 46 About a quarter of the total respondents (23 per cent) never visit their native places at all. Of the total persons who visit their native places, about three-fifth of them visit once in six months. Followed by, about one-fourth of them (23.72 per cent) visit once in a year, and about one-sixth of them (16.52 per cent) visit once in three months.
- 47 About a quarter of the respondents (23 per cent) never visit their native places at all. Of the total persons who visit their native places (236), about three-fourth of them (73.30 per cent) visit their native places due to family commitment, and rest of them (26.69 per cent) visit their native places due to performing agricultural operation.
- 48 More than two-third of the respondents (69 per cent) prefer employment as their first priority. Followed by little more than one-fourth of the population (27 per cent) prefer shelter as their first priority, and rest (very meager, i.e., 4 per cent) of them prefer water & sanitation and education as their first priority.
- 49 About nine-tenth (87 per cent) of the respondents, opined that they want to settle in the study area inspite of facing all types of socio-economic evils in their day-to-day living in the city. Only a meager (12 per cent) respondents opined that they may go back to their native place after some time that too after making good savings from Delhi.

50 Almost all persons want to have shelter but 87 per cent of them expressed their affordability to shelter, but a meager amount of persons (13 per cent) state that they cannot have affordability to shelter. Of the persons who show their affordability towards shelter, about one - third of them (30.94 per cent) opined that they can spend Rs. 101-200 per month. Followed by little more than quarter of them (26.04 per cent) state that they can afford Rs. 51-100 per month, about one-sixth of them (16.60 and 16.23 per cent) from each category of income Rs. 201-300 per month, and Rs. 301 – 500 per month it can afford money for housing. About one-twentieth (4.98 per cent) of them can afford Rs. <50 per month, and about another set of one – twentieth (4.69 per cent) can afford Rs. 501-1000 per month, and a very meager persons (1.13 per cent) can afford Rs. >1000 per month towards shelter.

In this present chapter the socio-economic, and environmental conditions of the homeless persons are analyzed thoroughly, and presented. Plausible findings are observed based on the analytical work done and are reported. It has been observed from the findings that the homeless persons are not considered as the part of the urban system, and their basic needs are not fulfilled. The Investigator tried to consider them as a part of the system, and also tried to fulfill the basic needs by calculating their affordability for provision of shelter to them. Therefore, the Investigator employed System Concept, theory of Hierarchy of Human Needs, and Multiple Regression Technique in this investigation and are presented in the subsequent chapter (chapter 5).

## APPLICATION OF THEORIES AND MODELS

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### 5.1 INTRODUCTION

The Investigator has employed two related theories like Systems Theory and the theory of Hierarchy of Human Needs, and a multiple regression model in this present investigation. The Investigator observes that the homeless persons are not treated as an integral part of the urban system while evolving policies, plans, programs, etc., for the development of the urban system so far. In fact, no development program is still evolved and implemented for the development of the homeless, since they are not treated as the part of the system. Therefore, the Investigator tried to establish the fact that the homeless persons are also an integral part of the urban system by employing the concept of system for the development of this segment. Further, the Investigator analyses the theory of hierarchy of human needs to evolve strategies for the development of the homeless by providing a basic need like shelter to this particular homeless segment. The Government of India has shifted its economic policies from socialistic form to capitalistic form of economic system, which expects some contribution from the beneficiary for implementing programs. Therefore, the Investigator has developed a multiple regression model based on the survey data to understand the affordability of the homeless persons towards housing to evolve optimal strategies for providing shelter to the homeless segment.

## 5.2 SYSTEMS CONCEPT

A system functions as whole with the interaction of several sub-systems. All the sub-systems of the system are inter-connected, and interdependent to each other, and forming a system. If one of the sub-systems of the system defunct or functions with higher degree (taking a lead role) during its function, its effects can be visualized in the entire system. In some cases, the system may not function at all, while in some cases the system may function, but with lot disturbances or the smooth functions of the system may be paralyzed.

In an urban system, the following sub-systems are linked together and form an urban system. They are:

1. Urban land
2. Population
3. Housing
4. Industries
5. Trade and commerce
6. Infrastructure facilities, (both physical and social)
7. Transportation, and
8. Administration (Control mechanism)

These all the sub-systems are interlinked and interdependent with each other, forming a system and function as a whole. The urban system is a complex social system, and it has the following characteristic features:<sup>(16)</sup>

“(1) It is not a mechanistic system, but rather an adaptive system.

- (2) It is an open system and thus cannot be studied or regulated apart from its contextual environments, which are defined by the nature of external interactions.
- (3) It is characterized by extreme interrelatedness of its part, calling forth the need for viewing the system in its entirety.
- (4) It is also characterized by substitutability of parts and functions implying that the detection of new and independent trends is difficult as they are often masked by the apparent stability of the parts”.

Each and every sub-system, which is mentioned above may also have or does not have sub-systems within them. For example, population can be categorized into people live in different types of households, such as, High Income Group, Middle Income Group, Low Income Group, Economically Weaker Section, Slums, Squatters, Pavement Dwelling units, and also homeless persons. Homeless persons become a part of the population sub-system. Similarly in Urban land sub-system, urban land may be used for different purposes, such as, housing, industries, infrastructure services, trade and commercial activity, urban agriculture, civic open spaces, etc. Like the above, other sub-systems also may have different sub-systems within their purview.

In this present Investigation, the Investigator has made an attempt to include homeless persons as one of the sub-system of the urban system, since large number of homeless persons live as homeless and they function as an

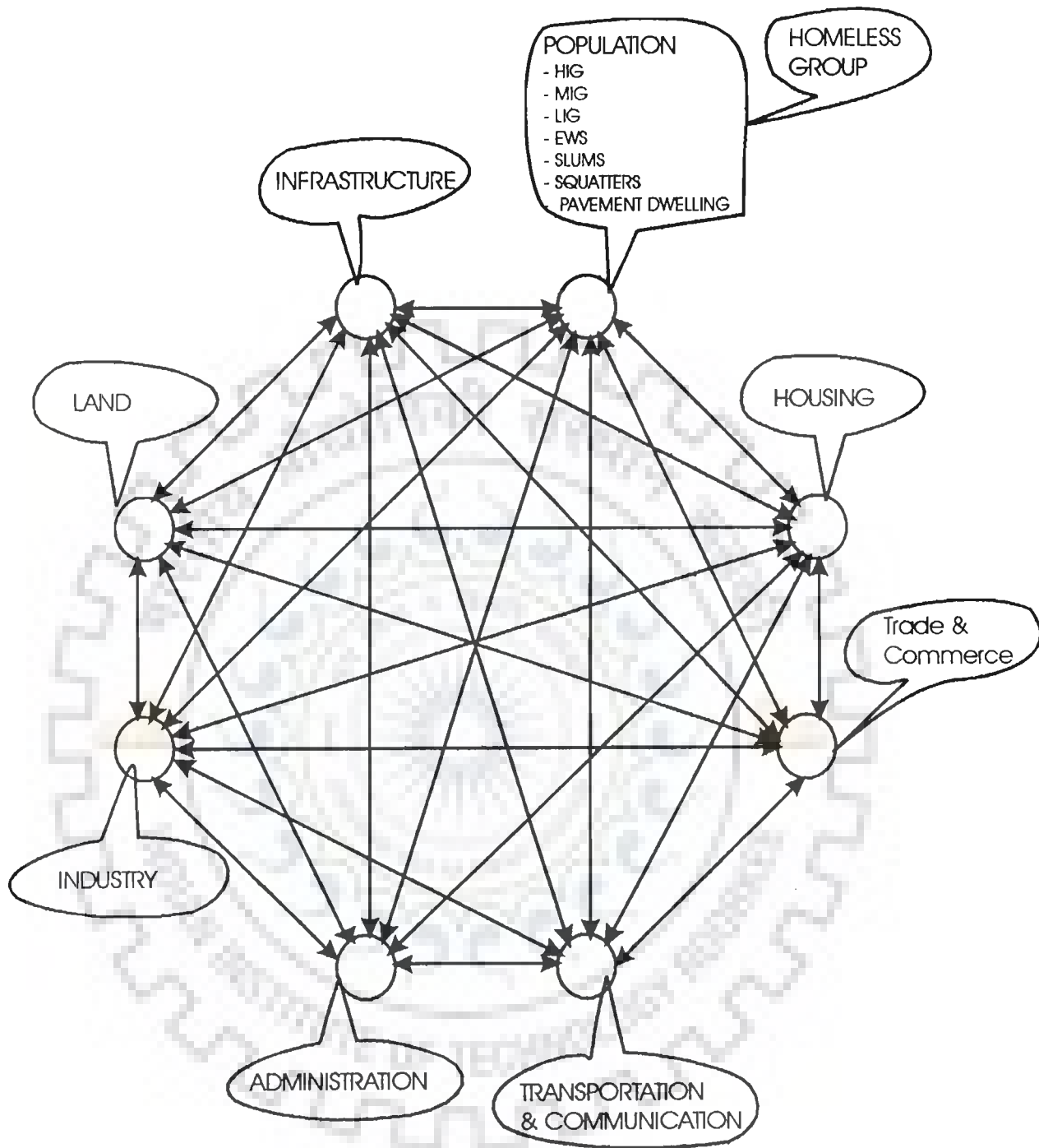


integral part of the urban system. Homeless becomes the integral part of the urban system as follows:

1. It lives within the urban limit.
2. It extends its services to the entire urban system.
3. It takes services from the urban system for its own survival.
4. Services of the homeless persons are more necessary to the urban system, and if their services are absent for few days, the entire urban system may be affected, or at least a part of the urban system will be affected.
5. The homeless persons are the essential elements of any commercial activity in the city because they carry goods and passengers from one destination to other in the city.
6. They contribute labour in construction, industry, transportation, rag picking, and setting up infrastructure.

Therefore, the Investigator made an attempt to establish the nexus of the homeless persons in the urban system by using system concept. The functions of the urban system with homeless persons are one of the sub-systems of the urban system are presented in Figure 5.1.

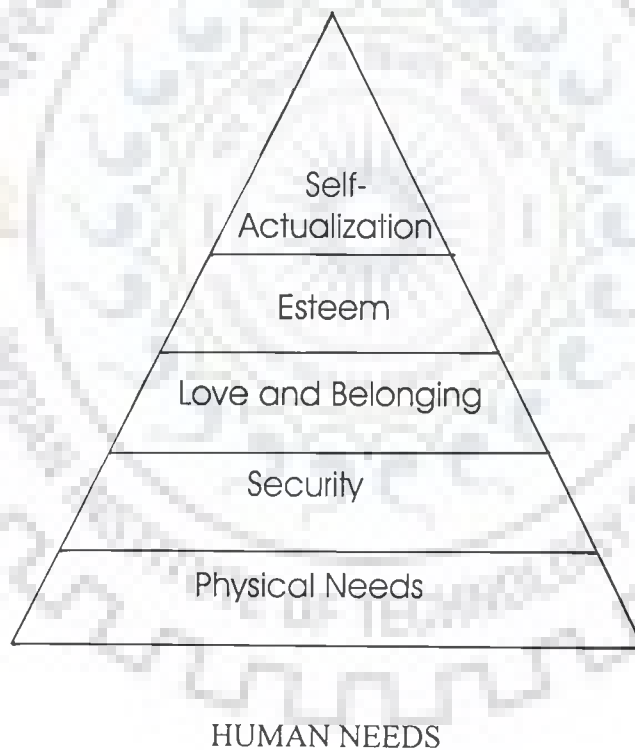
In India, it has been observed that the homeless persons are considered as a vulnerable group in the society and is isolated so far. The present investigation considers this particular group is also an integral part of the urban system, and evolves strategies for the development of this group particularly.



**Fig. No.5.1 HOMELESS IS A SUB-SYSTEM OF THE URBAN SYSTEM**

### 5.3 THEORY OF HIERARCHY OF HUMAN NEEDS

In this present investigation, Abraham Maslow's theory, of "hierarchy of human needs" (1954) is employed to understand the socio, economic, and physiological conditions of the homeless personals of the study area. In this theory, Abraham Maslow has clearly explained the human needs. The human needs are divided into five stages, such as, physical needs, security, love and belongingness, esteem, and self-actualization. These five stages are organized in a pyramid form starting from the basic stage, (physical need) to the highest reaching stage (self-actualization) and is shown in Fig. 5.2.



**Fig. No 5.2 Maslow shows the priority of human needs by arranging them in the shape of a pyramid.**

1. **Physical needs:** In physical needs, the following physical needs, such as food, water, shelter and clothing, must be at least partially satisfied before one can think about anything else.
2. **Security:** Next, one needs to feel safe in his/her surroundings and to know what to expect. One needs protection from physical harm and economic disaster.
3. **Love and acceptance:** At this point, one will do many things to gain affection. One needs to be praised and accepted by the others. People need people. They need contact and association with other human beings to become fully human. Therefore, they form social groups, establish families of many types, and invent complex social institutions. They need opportunities to give and receive friendship and love. A small failure can also make one feel rejected from the society. One needs much support, assurance and personal warmth.
4. **Esteem:** In this stage, not only one wants to be liked by others but also want to be respected. Each human being needs to feel positively about himself. This comes from a feeling of belonging, of participating effectively in the group to which one belongs, and from which one derives feelings of security. It includes feelings of self- confidence, achievement, competence, and independence.
5. **Self-actualization:** To reach this level, all other needs must be fulfilled to some degree. Each person has unique abilities and talents. Unless

lower- level needs have been reasonably well met, there may never be the opportunity to become a self-actualizing person- that is, a person who has become what he or she is uniquely capable of becoming a person who is self-fulfilled. If one wants to become a “fuller” person, he has to learn to develop full potential. He has to show his individuality despite social pressures. <sup>(6.)</sup>

As per this theory, the basic stage is physical needs. At the outset, each and every citizen tries to achieve the basic stage. Once the basic stage is achieved, one may try to achieve the second stage, i.e., security, then the third stage, fourth stage, and than the fifth stage.

According to Abraham Maslow's theory (the pyramid), the bottom most step is the physical needs. Unless and until the people achieve the basic steps, i.e., physical needs, one may not reach the second stage. But in India, meeting the physical needs itself is a dream to about a quarter of the population. Of which, more than two million (2.03 million) do not have houses at all and are living on pavement and other open spaces. <sup>(71)</sup>

In this present investigation, it has been observed that the homeless persons are not even met the physical needs according to Abraham Maslow. According to him, physical needs are food, water, shelter, and clothing. It has been observed that the homeless persons in the study area do not meet any one of these needs fully. In case of food, more than half of the studied homeless persons (54 per cent) manage food from outside (c.r.f. Table 4.22 in Chapter 4).

If these people had adequate shelter, they would have preferred to cook their own food since the cost is very less in self-cooking. In case of water, all the respondents in the study area are depending on either public tap or hand pump or piao, or roadside food stalls, and not even a single respondents has safe drinking water facilities (c. r. f. Table 4.24 in chapter 4). All the respondent have to go to outside for having water always since they do not have a place even to store a cup of water for next time drinking. It shows their vulnerable conditions. In case of toilets, none of the respondents in this investigation has safe toilet facilities (c. r. f. Table 4.25 in Chapter 4). About four-fifth of the respondents (79 per cent) use the pay and use toilets, and the rest of them either go to the public places or the toilet of the railway station.

In case of bathing, none of the respondents has privacy in bathing (c. r. f. Table 4.26 of Chapter 4). About half of them (48 per cent) take bath from public places, and the rest of them (52 per cent) use pay and use bathing facilities. In case of shelter, none of respondents has shelter at all. Only one per cent of the respondents use pay and use shelter in the night, and are shelterless in the daytime even if they suffer from chronic disease. The rest 99 per cent of the respondents do not have shelter at all. They undergo tortures during the monsoon season, foggy winter season and the sunny summer season. In case of clothes, all the respondents have clothes not even in reasonable condition, and all of them weared torned clothes. In some cases, it has been observed that they do not have even a second cloth for changing. In some cases (50 per cent), the respondents who have clothes to change are carrying their clothes along with

them always since they do not have storing places (shelter), (c. r. f. Table 4.21 of Chapter 4). It has been observed that almost all the respondents have to think always about their shelter during the monsoon season, and the foggy winter seasons to find even a little accommodation. Therefore, they are forced to move from one place to other for survival during the extreme weather conditions.

### **5.3.1 Significance of Maslow's Theory**

Abraham Maslow's theory clearly illustrates that, at the outset, human beings have to meet the first stage of satisfaction. Unless the first stage of satisfaction (physical needs) is met, one cannot achieve the second stage. In this present investigation, the investigated homeless personals do not meet the requirement of the basic stage, i.e., physical needs. They are very much lacking behind in food, water, clothes and shelter. It has been observed that all these physical needs (food, water, clothes and shelter) are beyond their dreams in their lives due to several reasons in general, and sending major part of their earning to their native place to safeguard their family members lives in particular.

In this grave situation, it is very much inevitable to evolve a set of plausible policy guidelines to fulfill the physical needs of the homeless personals, and then to think of the next stages like security, and so on.

## **5.4 APPLICATION OF MODEL**

In India, since independence, socialistic form of economic planning and development were practiced upto the year 1990. As per the socialistic form of economy, the government used to attend the poor people's problems and their aspirations regularly. In the field of housing, government had been introducing

several types of housing schemes aimed at providing free houses to the downtrodden community, who cannot afford houses on their own at all. Besides these, several schemes were introduced that gave capital subsidies to the poor people who construct their own houses. In some schemes, interest subsidies were given to promote construction of houses.

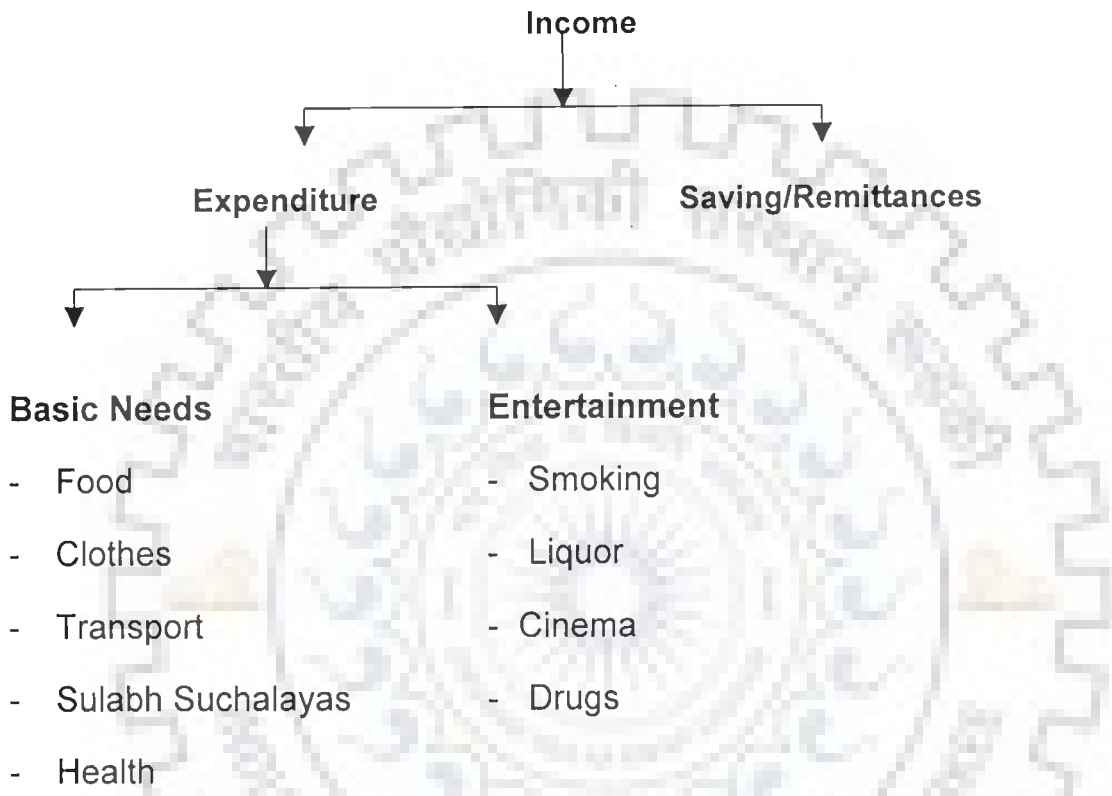
In 1991, the Government of India shifted its economic policies from socialistic system to capitalistic economic system. As a result, allocation of resources in the annual budget to safeguard the interest of the downtrodden section of the society is drastically decreased. The government has brought a new policy in which the beneficiary (the downtrodden community or who ever may be among the weaker section) has to contribute at least little percentage of amount for house construction. Government's policies are changed from provider to facilitator. As a consequence, even the poorest among the poor section of the society is also forced to pay certain amount for managing their own housing facilities. In this situation, the investigator has made an attempt to understand the affordability of this particular economically vulnerable section of this society towards housing by employing multiple regression model.

#### **5.4.1 Application of Multiple Regression Model**

In this present investigation, multiple regression model is employed to understand the affordability level of the homeless persons towards shelter. At the outset, the variable which are responsible for deciding the affordability level are identified based on the primary survey conducted among the homeless persons. It has been observed that the homeless persons are spending money for two



activities, such as, basic needs and entertainment. Besides these, the homeless persons save a considerable amount of money from their income, and send back to their hometown for safeguard the interest of their kith's and kin's. The type of expenditure made by the homeless is shown in Fig. 5.3.



**Fig. No 5.3 Expenditure Patterns of the Homeless Persons**

The amount of expenditure and the amount of remittances (sending back money to their houses) are varying from one income group to other income group of the sample respondents (c.r.f table 4.32 to 4.41 of chapter 4). Therefore, the regression analysis was done by considering the different income group of the homeless. To construct the regression model, affordability is considered as dependent variable (Y), subject to the following independent variables:

- (i) Income ( $X_1$ )
- (ii) Expenditure on Basic Needs ( $X_2$ )
- (iii) Expenditure on Entertainment ( $X_3$ )
- (iv) Remittances ( $X_4$ )
- (v) Age of Respondents ( $X_5$ )
- (vi) Period of Stay ( $X_6$ )

Based on these variables, the following analytical model is developed for calculating the affordability level among different income group of the homeless persons.

$$y = c + \sum_{i=1}^6 m_i x_i$$

- At the outset, the Investigator tried to understand the correlation among the dependent and independent variables, and the results are presented in Table 5.1. It is observed from the table that income, basic needs, entertainment and remittances have some effect of about 15 to 20 per cent on affordability, whereas the other variables such as, age and period of stay show very poor co-efficient of correlation with affordability. Based on the above results of the correlation analysis, the Investigator considered four variables, which have association on affordability, i.e. income, basic needs, entertainment and remittances as independent variables. A multiple regression was carried out on 306 data points by using these four variables, but the results were not satisfactory, i.e., having adjusted  $R^2 = 0.073$  and standard error Rs. 236.92.

**Table 5.1 Correlation between dependent and independent variables**

	Willingness for shelter	Income	Basic needs	Entertainment	Remittances	Age	Period of stay in current location
Willingness for shelter	1						
Income	0.2705	1					
Basic needs	0.2001	0.623146	1				
Entertainment	0.1425	0.3982	0.2918	1			
Remittances	0.2031	0.5076	0.1408	0.1254	1		
Age	-0.1825	0.0149	0.0403	0.0035	-0.084	1	
Period of stay	-0.0995	0.0091	0.0170	0.0236	-0.875	0.6150	1

- Reexamination of data suggested that the affordability questioned during interview with the respondents and the answer given by them were arbitrary. At present, actually, they are paying nothing for shelter and so they had not even thought of answer to specifically for this question, they have answered without keeping in mind the merits and demerits of the alternate suggested to them. As shelter is among the second priority for them after employment, (c.r.f. table 4.47 of chapter 4), some showed very low willingness to pay for shelter due to their low income, high expenditure or high remittances, and some showed very high willingness for shelter in terms of money that they are ready to pay if a house is provided to them.
- In the light of above findings, the Investigator outliered some data point, and filtered those respondents who are willing to pay between 8 to 35 per cent of their income for shelter, and got 138 respondents. Again a coefficient of correlation was calculated for all seven independent and dependent variables, and the results are presented in Table 5.2. This table shows the phenomenal improvement in coefficient of correlation to affordability, with four dependent

variables i.e. income, basic needs, entertainment and remittances compared to the previous coefficient of correlation. Again age and period of stay has showed poor coefficient of correlation with affordability, hence the Investigator has dropped them from the analysis.

**Table 5.2 Correlation between dependent and independent variables**

	Willingness for shelter	Income	Basic needs	Entertainment	Remittances	Age	Period of stay in current location
Willingness for shelter	1						
Income	0.7018	1					
Basic needs	0.6068	0.6017	1				
Entertainment	0.3151	0.4948	0.3431	1			
Remittances	0.3190	0.6844	0.08692	0.1384	1		
Age	-0.0161	-0.0018	0.08195	0.04660	-0.0595	1	
Period of stay	0.0364	-0.0371	0.0016	0.10429	-0.1094	0.536	1

- Further, a multiple regression was carried out on these 138 data points by considering affordability as dependent variable (Y) and income ( $X_1$ ), basic needs ( $X_2$ ), entertainment ( $X_3$ ) and remittances ( $X_4$ ) as independent variables. The results are presented in Table No. 5.3. It has been observed that the adjusted  $R^2$  value has significantly improved from 0.073 to 0.55, which shows that the effect of these four variables on affordability has improved from 7 per cent to 55 per cent and F value (level of significance) has improved by about 36.5 per cent. Whereas, the standard error is still very high, i.e. Rs. 148.60.
- The Investigator further outliered some data points to get a workable multiple regression model. This time the Investigator outliered those data giving errors greater than  $\pm 60$  of calculated affordability to the affordability answered by the respondents during the survey, and got 54 reasonable data points.

- A multiple regression analysis was carried out on these 54 data points, and the results are tabulated in Table 5.3 along with the previous results of 306 data points and 138 data points. This table shows that the results of the regression model has improved to 95 per cent in terms of adjusted  $R^2$ , which was at 7 per cent and 55 per cent for 306 and 138 data points respectively. The standard error is reduced to Rs. 35.5, and the value of F is increased to 253.2 in light of the new model. The data of 54 data points are presented in appendix B in form of computer print out.

**Table 5.3 Results of Multiple Regression Analysis**

	All data points (306)	138 data points (A/I * 100 = 8per cent -35per cent)	54 data points (E -60 to + 60)
Intercept	99.1181 (.001572)	-27.9332 (0.4190.66)	-39.025 (0.011677)
Coefficient for Income	0.021711 (0.100513)	0.145244 (1.1E-08)	0.154048 (3.92E-16)
Coefficient for Basic Needs	0.037016 (0.271633)	0.10086 (0.046113)	0.089001 (0.000783)
Coefficient for Entertainment	0.065236 (0.433132)	-0.13782 (0.096403)	-0.14526 (1.61E-05)
Coefficient for Remittances	0.036003 (0.091741)	-0.06094 (0.0176)	-0.0675 (1.54E-06)
R	0.291168	.753351	0.976654
$R^2$	0.072616	0.554532	0.950085
F	6.97055	43.635	253.2038

*\*p value is in parenthesis.*

- The percentage of respondents from different income groups are presented in Fig 5.4 The figure illustrates that the percentage of respondents are increasing along with increase in monthly income of Rs. 1501-2400, and then started to observe the reverse trend. It is observed that three-fourth respondents (75 per cent) are confined within this income group i.e. < 900 to 2400. The rest of the respondents one-fourth (25 per cent) belong to the income group between Rs. 2400 to Rs. > 4500. It is also observed that person earning more show low affordability for shelter, whereas comparatively persons earn less show high affordability for shelter. It is due to the person earn more do not want to move out of such places that may affect their income. The developed model is a generalised model, which is applicable to all income groups, at all locations and to all types of occupations of homeless persons in Delhi city.
- The model generated from 54 data points is then applied to all 306 data points to find out the total number of respondents that fit in the model, and observed that only 33.33 per cent of respondents fit in this model. The Fig. 5.5 shows the percentage of respondents from different income groups that fit in the model. The figure illustrates that 92 per cent of the respondents lie in the income group from Rs. < 900 to Rs. 3000 and only 8 per cent of the respondents lie in the income group from Rs. 3000 to Rs. > 4500. It is observed that respondents earning less show high affordability for shelter (as seen from the previous figure No. 5.4). It was also observed that respondents

earning more than Rs. 4500 per month do not want to pay more for shelter instead of their high savings.

- The respondents who do not fit in the model belonging to different income groups are shown in Fig. 5.6. This illustrates that again majority of the respondents (82 per cent) belong to the same income group, i.e., from Rs < 900 to Rs. 3000 per month. The reason behind it is mainly their low income, and high expenditure and remittances. The people earn more than Rs. 4500 also do not want to pay for shelter because of their present living habits.
- The model generated with the equation

$$Y = -39.025 + 0.154048X_1 + 0.089001X_2 - 0.14526X_3 - 0.0675X_4$$

This was applied to all income groups respondents. Then the average of the income, expenditure on basic needs and entertainment, and remittances made by all income groups are considered. The average affordability for different income group was calculated on the basis of the equation. The results are presented in Table 5.4. The equation also shows that if the income of the respondent increases by Rs. 100, then its affordability increase by Rs. 15.

- This average affordability level of various income groups of the homeless persons are calculated by using the aforesaid multiple regression equation, and is further applied in framing shelter strategies of homeless persons in Delhi City.

**Table 5.4 Average Affordability of Different Income Group Categories**

Income in Rs. Per month	Average calculated affordability (Rs.)	Per cent of Income(per cent)
< 900	82.89523	12.83
900-1500	196.5012	14.47
1500-2400	303.6436	14.64
2400-3000	439.255	14.83
3000-4500	631.5089	14.82
>4500	1010.683	14.84

In this chapter, the Investigator employed system concept, theory of hierarchy of human needs, and the multiple regression model to establish the homeless persons as a part of the urban system, to prove that their basic needs are not met, and also to understand the purchasing power of the homeless persons pertaining to shelter. The Investigator could establish the fact that the homeless persons are the part of the urban system, their basic needs are not met, and also worked out their purchasing power pertaining to shelter. Further, the Investigator evolved optimal shelter strategies for different income groups of the homeless persons based on their purchasing power (affordability) towards shelter, and are presented in the subsequent chapter (chapter 6).



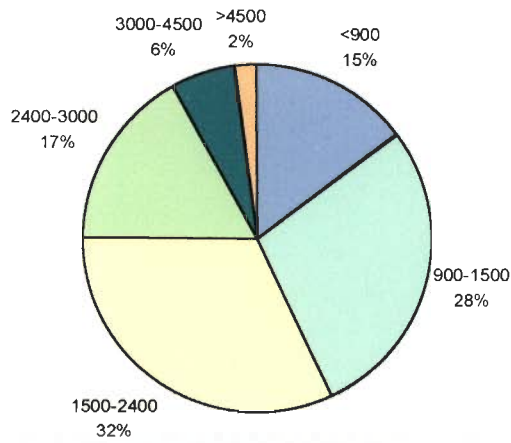


Fig. 5.4 Percentage of respondents in different income groups (54 respondents)

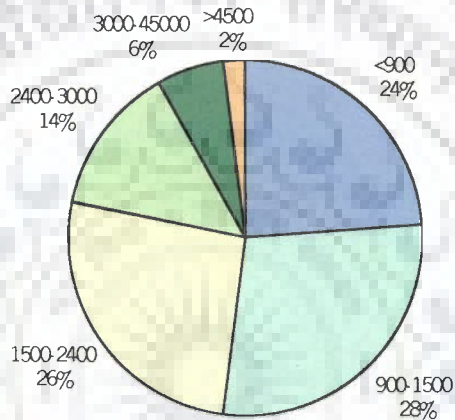


Fig. 5.5 Percentage of respondents in different income groups (102 respondents)

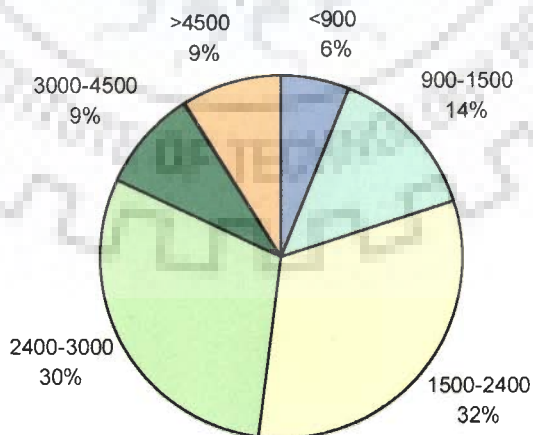


Fig. 5.6 Percentage of respondents in different income groups (204 respondents)

## SHELTER STRATEGIES FOR THE HOMELESS PERSONS

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### 6.1 INTRODUCTION

Delhi is experiencing an unprecedented population growth, due to several factors. Migration is one of the most important factors, which is also responsible for the same. As a result, the demand of housing increases, while the supply of houses is not commensurating with the growing demand. The gap between the demand and supply of houses is widening over the years, and it touches the alarming rate in recent years. In this grave situation, it is inevitable to have a comprehensive optimal housing policy to accommodate homeless persons at reasonable level and making it possible that the rent paying capacity of the homeless persons should be at par with the economic rent of the houses.

In order to provide the housing stock, public and private housing agencies are involved in the provision of houses of different standards.

The housing in relation to affordability can be described as follows:

1. The Private Developers or the Public Agencies build houses or flats, which shall be within the purchasing power of the households.
2. Houses or flats are provided by the housing agencies on rental basis to the households. Such households are unable to purchase these houses out of their own resources or unable to pay the installments so as become the owner of the house or flat within the stipulated time,

whereas these households can afford the rent as prevalent in the markets.

3. There is a 3<sup>rd</sup> category of the households who are unable to pay the rent prevalent in the market and they are being forced to settle in slums or squatter settlements by using their available resources for squatting either on the public or private land.
4. There is a 4<sup>th</sup> category of the households who even do not have the resources to erect a squatter and tend to live in the open, and they become homeless. These 'homeless' persons are termed as '*houseless*' population.

There is an urgent requirement to have feasible housing policies to safeguard the interest of the 3<sup>rd</sup> and 4<sup>th</sup> category of households.

The present investigation aims at to evolve feasible shelter strategies for the development of the homeless population of the Delhi city. The homeless populations are living below poverty line, and it needs a very different strategy for solving their housing problems. The strategy demands short term as well as long-term solutions i.e., transit accommodation (Rental Shelter), and the other is shelter on ownership concept, respectively. To provide shelter to the homeless on ownership basis, huge amount of financial and other resources are very much essential. Since the homeless do not have any kind of resource, either the Government or some donor agencies have to meet the expenditure. The Government of India does not have much financial resource to feed the starving and half starving population. At this juncture, it is impossible to expect financial or

other resources from the Government to invest more in this sector to provide shelter to all needy persons. Unfortunately, the affordability level of the homeless persons is also very less. Moreover, the people who are living as homeless are facing problems of having food, clothing and other basic needs of life, for them the desire to have shelter on ownership concept is beyond their imaginations. Therefore, the following concepts in the shelter solution for homeless are suggested:

- (i) Shelter solution on rental basis (Daily basis), and
- (ii) Shelter solution on ownership basis in long period.

In order to develop a feasible shelter strategy for homeless, a proper coordination between the cost of the house and the purchasing power of the households pertaining to the rental accommodation as well as for the ownership accommodation is essential.

Studies are undertaken as part of this investigation to formulate guidelines on cost effective planning and design solutions, in order to develop housing options for such schemes for homeless population so that the economic rent of the dwelling may match with the purchasing power of the homeless segment of the community for the schemes attempted as rental housing. In case of ownership concept of such housing, the purchasing power of homeless of the community should be at par with the installment of the house for the stipulate period of years and rate of amortization for the capital. In both these types of housing schemes, firstly on rental basis and secondly on ownership basis, recommendations of selection of housing options with reference to housing

developments for the households below the poverty line have been framed in order to make these schemes economically viable and within their affordability levels of such poverty stricken urban population.

Investigations are done as a part of this programme to formulate guidelines for affordable shelter strategies either on rental basis or ownership basis for this particular group of homeless segment.

Approaches for arriving on an optimum shelter solution either on rental basis or on ownership basis are presented as follows:

1. To conduct shelter demand survey along with the income of the homeless persons, and their purchasing power either for rental shelter or for own shelter.
2. The capital cost of shelter comprises of the following three different parameters, such as, cost of land for accommodating shelter and other facilities, cost of development for providing infrastructure facilities for the shelter, and cost of construction of the superstructure of the shelter.

Establish correlation between installment paying capacity of different income categories of homeless persons in relation to own shelter and the capital cost of shelter based on ownership concept in relation to rate of interest and period of amortization for the cost of land, cost of development and cost of construction of superstructure.

Simultaneously establish correlation between rent paying capacity of different categories of homeless persons in relation to rental shelter and the cost of shelter based on rental concept in relation to rate of interest for

the cost of land and cost of development and rate of interest and period of amortization for the cost of construction of superstructure.

3. To establish correlation between net density, land use percentage allocation in net housing, land cost for arriving at installment component of ownership shelter in relation to cost component for land.

Simultaneously to establish correlation between net density, land use percentage allocation in net housing, land cost for arriving at rent component of rental shelter in relation to cost component for land.

4. To establish correlation between gross residential density and cost of infrastructure, for arriving at installment component of ownership shelter in relation to cost component for development.

Simultaneously to establish correlation between gross residential density and cost of infrastructure for arriving at rent component of rental shelter in relation to cost component for development.

5. To establish the correlation between built up spaces and cost of construction per shelter for arriving at installment component of ownership shelter in relation to cost component for construction of superstructure.

Simultaneously to establish correlation between the built-up spaces and cost of construction per shelter for arriving at rent component of rental shelter in relation to cost component for construction of superstructure.

6. To establish the correlation between the installment paying capacity of the homeless persons with the installment component of the land cost, development cost and cost of construction of the ownership shelter.

Simultaneously to establish the correlation between the rent paying capacity of the homeless persons, with the rent component of the land cost, development cost and construction cost of the rental shelter.

## **6.2 AFFORDABLE SHELTER – RENTAL AND OWNERSHIP: A SCIENTIFIC APPROACH**

Investigations have been done to formulate guidelines for affordable shelter on cost effective planning and design solutions. In order to develop housing options for different types of shelter, the economic rent and installment of the shelter shall match with the purchasing power of homeless either as rent for rental shelter or as installment for ownership shelter respectively.

Recommendations in selection of shelter options with reference to shelter either on rental basis or on ownership basis with reference to schemes of homeless have been framed. In order to make these scheme economically viable and within their purchasing power of homeless for rental shelter as well as for ownership shelter in relation to rent or installment paying capacity, respectively.

Correlations have been established between the rent paying capacity and the physical provision of built up spaces, quantum of open spaces, extent of amenities and community facilities, level of infrastructure services, quality of environment and other related parameters of shelter design. An approach consisting of six steps for arriving at optimum shelter option has been suggested as given below:

1. Establish the rent paying capacity of the homeless people: The normal method of determining the rent paying capacity of the homeless persons depend upon the actual income and percentage of income to be paid as rent. Real rent paying capacity, and willingness to pay, which are decided by conducting thorough investigation at field level.

The different percentiles of homeless persons in term of income are grouped into a few categories based on their representation to the particular income group. The percentage of expenditure towards shelter is also worked out for different income group categories. The different income group categories among the particular group of homeless with different rent paying capacity is used to work out some number of shelter models as economically viable shelter solution for the homeless group.

$$R_{1-n} = I_{1-n} \times \frac{P_{1-n}}{100}$$

Thus, n categories of rent paying capacity are framed from 1 to n number for the particular shelter solution.

$R_{1-n}$  = Rent paying capacity of the different representative groups from 1 to n.

$P_{1-n}$  = Percentage of income ready to spent on shelter by the different representative groups from 1 to n.

$I_{1-n}$  = Average of the income of the different representative group from 1 to n.

2. Establish correlation between installment paying capacity of different categories of homeless persons in relation to own shelter as arrived in step one and the capital cost of shelter based on ownership in relation to



rate of interest and period of amortization for the cost of land, cost of development and cost of construction of superstructure.

Simultaneously establish correlation between rent paying capacity of different categories of homeless persons in relation to rental shelter and the cost of shelter based on rental concept in relation to rate of interest for the cost of land and cost of development and rate of interest and period of amortization for the cost of construction of superstructure

In case of homeless, the rent paying capacity is so low that the concept of ownership shelter is beyond the limit of their paying capacity. Therefore, for such situation, it has become inevitable to introduce the concept of rental shelter on the basis of daily rent.

The difference in rent of the rental shelter and the installment of ownership shelter is due to the payment of interest on the cost involved in the cost of land and the cost of development in case of rental shelter, while in the case of ownership shelter the capital cost involved in the cost of land and cost of development is amortized. Whereas, the second component is cost of construction of superstructure which is amortized both in rental and ownership shelter.

In the public financial schemes, such as, provided by Housing and Urban Development Corporation (HUDCO), and other financial institutions, the monthly installment is a function of the rate of interest, period of amortization and capital cost of the shelter. The capital cost of the shelter comprises of the land cost, development cost and construction cost of superstructure of the shelter. In the

ownership shelter, all the three components are to be amortized for specified period and by the specific rate of interest. The capital cost of the shelter can be arrived at in relation to installment paying capacity of the homeless persons carried in step one.

The following equations is used, incase of ownership shelter, to calculate total capital cost of house in which all the three components i.e., land cost, development cost and construction cost of superstructure are amortized for specific period and for specific rate of interest.

$$\text{Cost of Shelter} = \frac{\text{Monthly Payment}}{\text{Recovery factor on Ownership Shelter Concept}} \times 1000$$

$$CS = \frac{MP}{RF_c} \times 1000$$

CS = Cost of shelter.

MP = Monthly payment made by the beneficiary

RF<sub>c</sub>= Capital Recovery factor and is a function of interest rate and number of years of amortization. Housing and Urban Development Corporation (HUDCO), and other financial institutions have worked out the capital Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO), has announced the rate of interest as 9 per cent and number of years as 15. In this case, the capital recovery factor works out to be 10.14 per Rs. 1000

cost of the shelter, as per the interest rate of Housing and Urban Development Corporation (HUDCO)<sup>(46)</sup>.

In order to decide the options of shelter i.e., plot size, land use allocations in net housing of residential area, cost of development and cost of superstructure, it is essential to divide the cost of house in two components i.e., first component is cost of land and cost of development, and the second component is cost of construction of superstructure. This is expressed by the following equation:

Cost of house = cost of land + cost of development + cost of construction

$$\text{Cost of land + cost of development} = \frac{X}{100} \times \text{cost of house}$$

$$\text{Cost of construction} = \frac{100 - X}{100} \times \text{cost of house}$$

Where, 'X' is the percentage of the cost of land and cost of development.

The apportionment of cost of house in these two components is based on appropriate shelter solution and divides the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO), and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

Monthly rent for cost of superstructure = Total rent - Monthly rent for land and development cost.

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000$$

The cost for land and development in rental shelter is determined by the following equation.

$$\text{Cost of land and development} = \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000$$

3. Establish correlation between net residential land per shelter i.e., plot size, net land use percentage in housing, land cost and rent component per shelter arrived at step two.

The cost component of land cost in the overall cost of a housing development is a function of net density, land use percentage, price of land, and rent component of shelter. The variation in net density and net land use percentage in housing can change the component of land cost to a great extent, and it is essential to know the impact of such change under varying parameters. At the same time, it is essential to keep the view that the parameter of net density and land use allocation in housing should be within the practical limit. The relationship is governed by the following equation:

$$C = \left( \frac{10000}{P} \times \frac{100}{Z} \right) LP$$

Where,

C = cost of land per shelter unit

P = Net density in plots per hectare

Z = Land use percentage allocation in net housing

LP = Price of land in Rs. Per sq.m.

4. Establish the correlation between cost of infrastructure and community facilities and cost component of shelter per shelter as arrived in step two.

The provision of on site and off-site infrastructure is very much important and the cost of provision affects the economic viability of the total project. The following equation is suggested to determine the cost of development per dwelling for varying parameters.

$$A = \frac{10,000}{L} \times B$$

- Where,
- A = Cost of infrastructure development per shelter in Rs.
  - L = Gross residential density in dwelling per hectare
  - B = Cost of infrastructure development per sq.m.

5. To establish the correlation between the built up space and cost of construction per shelter and cost component of shelter per shelter as arrived in step two.

The built up area of the superstructure and the cost of construction per unit area determines the costs of the superstructure of the shelter.

$$\text{Cost} = \text{Area} \times \text{Rate of construction}$$

$$S = A \times R$$

- Where,
- S = Cost of construction of superstructure in Rs.
  - A = Built up area of the superstructure in sq.m.
  - R = Rate of construction per sq.m.

6. To develop shelter model matching all above steps.

The selection of shelter model in this step with the model afforded by the different income group of homeless persons.

### 6.3 APPLICATION OF DATA INTO MODEL

1. The field data of 306 respondents were analyzed, and 6 types of income categories are obtained. They are presented in Table 6.1

**Table 6.1 Percentage of respondents in different income groups and their affordability to shelter**

Sl No.		Income groups	Percentage of respondents	Percentage of income ready to pay for shelter
1.	Type I	< 900	12.0 per cent	12.83 per cent
2.	Type II	901-1500	19.0 per cent	14.47 per cent
3.	Type III	1501-2400	30.0 per cent	14.64 per cent
4.	Type IV	2401-3000	24.5 per cent	14.83 per cent
5.	Type V	3001-4500	8.0 per cent	14.82 per cent
6.	Type VI	> 4501	6.5 per cent	14.87 per cent

To establish the monthly paying capacity of the different categories of income group people the following equation is used.

$$R_{1-n} = I_{1-n} \times \frac{P_{1-n}}{100}$$

where  $R_{1-n}$  – Monthly paying capacity from group 1 to n.

$I_{1-n}$  – Average income from group 1 to n.

$P_{1-n}$  – Percentage of income ready to pay for shelter.

The application of the income and the percentage of income for expenditure towards shelter in the above 6 categories are given below.

Type I

$$R_1 = I_1 \times \frac{P_1}{100}$$

$$= 645.83 \times \frac{12.83}{100}$$

$$= 82.8 \approx \text{Rs.83}$$

Type II

$$R_2 = I_2 \times \frac{P_2}{100}$$

$$= 1357.8 \times \frac{14.47}{100}$$

$$= 196.47 \approx \text{Rs.197}$$

$$\begin{aligned}
 \text{Type III} \quad R_3 &= I_3 \times \frac{P_3}{100} \\
 &= 2073.9 \times \frac{14.64}{100} \\
 &= 303.6 \approx \text{Rs.304}
 \end{aligned}$$

$$\begin{aligned}
 \text{Type IV} \quad R_4 &= I_4 \times \frac{P_4}{100} \\
 &= 2960 \times \frac{14.83}{100} \\
 &= 438.9 \approx \text{Rs.440}
 \end{aligned}$$

$$\begin{aligned}
 \text{Type V} \quad R_5 &= I_5 \times \frac{P_5}{100} \\
 &= 4260 \times \frac{14.82}{100} \\
 &= 631.3 \approx \text{Rs.632}
 \end{aligned}$$

$$\begin{aligned}
 \text{Type VI} \quad R_6 &= I_6 \times \frac{P_6}{100} \\
 &= 6795.1 \times \frac{14.87}{100} \\
 &= 1010.43 \approx \text{Rs.1011}
 \end{aligned}$$

2. The total cost of shelter for the monthly payment paid by the homeless as arrived in step one. The capital cost of shelter has been worked out by applying the data in the following equations for all six categories of income group.

1. **FIRST CATEGORY – MONTHLY PAYING CAPACITY IS RS. 83**

$$\text{Cost of Shelter} = \frac{\text{Monthly Payment}}{\text{Recovery factor on Ownership Shelter Concept}} \times 1000$$

$$CS = \frac{MP}{RF_c} \times 1000$$



$$CS = \frac{83}{10.14} \times 1000$$

$$= \text{Rs } 8185.40$$

CS = Cost of shelter.

MP = Monthly payment made by the beneficiary

RF<sub>c</sub> = Capital Recovery factor and is a function of interest rate and number of years of amortization. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the capital Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent and number of years as 15. In this case, the capital recovery factor works out to be 10.14 per Rs. 1000 cost of the shelter as per the interest rate of Housing and Urban Development Corporation (HUDCO)<sup>(46)</sup>.

In order to decide the options of shelter i.e., plot size, land use allocations in net housing of residential area, cost of development and cost of superstructure, it is essential to divide the cost of house in two components i.e., first component is cost of land and cost of development, and the second component is cost of construction of superstructure. This is expressed by the following equation:

Cost of house = cost of land + cost of development + cost of construction

(I) Let X be 20 per cent

Where 'X' is the percentage of the cost of land and cost of development.

$$\text{Cost of land + cost of development} = \frac{X}{100} \times \text{cost of house}$$

$$= \frac{20}{100} \times 8185.40$$

$$= \text{Rs. } 1637.08$$

$$\begin{aligned}
 \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\
 &= \frac{80}{100} \times 8185.40 \\
 &= \text{Rs.6548.32}
 \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter, i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{1637.08 \times 7.5}{1000} \\
 &= \text{Rs. 12.27}
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically

Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land} \\ & \hspace{15em} \text{and development cost.} \\ &= 83 - 12.27 \\ &= \text{Rs. } 70.73 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{70.73 \times 1000}{10.14} \\ &= \text{Rs. } 6975.34 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{12.27 \times 1000}{7.5} \\ &= \text{Rs. } 1637.08 \end{aligned}$$

**A Ownership Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 1637.08
- (ii) Cost of construction of superstructure = Rs. 6548.32

## **B Rental Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 1637.08
- (ii) Cost of construction of superstructure = Rs. 6975.34

(II) Let X be 40 per cent

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 8185.40 \\ &= \text{Rs. } 3274.16\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 8185.40 \\ &= \text{Rs. } 4911.24\end{aligned}$$

Where 'X' is the percentage of the cost of land and cost of development.

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{3274.16 \times 7.5}{1000} \\ &= \text{Rs. 24.55} \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

Monthly rent for cost of superstructure = Total rent - Monthly rent for land and development cost.

$$\begin{aligned} &= 83 - 24.55 \\ &= \text{Rs. 58.45} \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{58.45 \times 1000}{10.14} \\ &= \text{Rs. 5764.29} \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{24.55 \times 1000}{7.5} \\ &= \text{Rs. } 3274.16 \end{aligned}$$

**A Ownership Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 3274.16
- (iii) Cost of construction of superstructure = Rs. 4911.24

**B Rental Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 3274.16
- (ii) Cost of construction of superstructure = Rs. 5764.29

(III) Let X be 60 per cent

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{60}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 8185.40 \\ &= \text{Rs. } 4911.24 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 8185.40 \\ &= \text{Rs. } 3274.16 \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{4911.24 \times 7.5}{1000} \\
 &= \text{Rs. } 36.83
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

Monthly rent for cost of superstructure = Total rent - Monthly rent for land and development cost.

$$\begin{aligned}
 &= 83 - 36.83 \\
 &= \text{Rs. } 46.16
 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation:

Cost of construction of superstructure

$$\begin{aligned}
 &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
 &= \frac{46.16 \times 1000}{10.14} \\
 &= \text{Rs.} 4552.26
 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned}
 \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\
 &= \frac{36.83 \times 1000}{7.5} \\
 &= \text{Rs.} 4911.24
 \end{aligned}$$

**A Ownership Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 4911.24
- (ii) Cost of construction of superstructure = Rs. 3274.16

**B Rental Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 4552.26
  - (ii) Cost of construction of superstructure = Rs. 4911.24
- (IV) Let X be 80 per cent

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}
 \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\
 &= \frac{80}{100} \times 8185.40 \\
 &= \text{Rs.} 6548.32
 \end{aligned}$$

$$\begin{aligned}
 \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\
 &= \frac{20}{100} \times 8185.40 \\
 &= \text{Rs.} 1637.08.
 \end{aligned}$$



The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

$$\begin{aligned}
 &\text{Monthly rent same for land and development cost} \\
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{6548.32 \times 7.5}{1000} \\
 &= \text{Rs. 49.11}
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned}
 \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and} \\
 &\hspace{15em} \text{development cost.} \\
 &= 83 - 49.11 \\
 &= \text{Rs. 33.89}
 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned}
 &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
 &= \frac{33.89 \times 1000}{10.14} \\
 &= \text{Rs. } 3342.20
 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned}
 \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\
 &= \frac{49.11 \times 1000}{7.5} \\
 &= \text{Rs. } 6548.32
 \end{aligned}$$

**A Ownership Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 6548.32
- (ii) Cost of construction of superstructure = Rs. 1637.08

**B Rental Shelter – First Category -Monthly Payment Capacity is Rs. 83**

- (i) Cost of land and development = Rs. 3342.20
- (ii) Cost of construction of superstructure = Rs. 6548.32.

**2 SECOND CATEGORY – MONTHLY PAYING CAPACITY IS RS. 197**

$$\text{Cost of Shelter} = \frac{\text{Monthly Payment}}{\text{Recovery factor on Ownership Shelter Concept}} \times 1000$$

$$CS = \frac{MP}{RF_c} \times 1000$$

$$CS = \frac{197}{10.14} \times 1000$$

$$= \text{Rs } 19428.00$$

Where,

CS = Cost of shelter.

MP = Monthly payment made by the beneficiary

RF<sub>c</sub> = Capital Recovery factor and is a function of interest rate and number of years of amortization. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the capital Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent and number of years as 15. In this case, the capital recovery factor works out to be 10.14 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO)<sup>(46)</sup>.

In order to decide the options of shelter i.e., plot size, land use allocations in net housing of residential area, cost of development and cost of superstructure, it is essential to divide the cost of house in two components i.e., first component is cost of land and cost of development, and the second component is cost of construction of superstructure. This is expressed by the following equation:

Cost of house = cost of land + cost of development + cost of construction

(I) Let X be 20 per cent

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 19428.00 \\ &= \text{Rs. } 3885.60\end{aligned}$$

$$\begin{aligned}
 \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\
 &= \frac{80}{100} \times 19428.00 \\
 &= \text{Rs.}15542.40.
 \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{3885.60 \times 7.5}{1000} \\
 &= \text{Rs.} 29.14
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while

considering the interest rate of Housing and Urban Development Corporation (HUDCO).

Monthly rent for cost of superstructure = Total rent - Monthly rent for land and development cost.

$$= 197 - 29.14$$

$$= \text{Rs. } 167.86$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000$$

$$= \frac{167.86 \times 1000}{10.14}$$

$$= \text{Rs. } 16554.24.$$

The cost for land and development in rental shelter is determined by the following equation.

$$\text{Cost of land and development} = \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000$$

$$= \frac{29.14 \times 1000}{7.5}$$

$$= \text{Rs. } 3885.60$$

**A Ownership Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 3885.60
- (ii) Cost of construction of superstructure = Rs. 15542.40

**B Rental Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 3885.60
- (ii) Cost of construction of superstructure = Rs. 16554.24

(II) Let X be 40 per cent

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 19428.00 \\ &= \text{Rs. } 7771.20 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 19428.00 \\ &= \text{Rs. } 11656.80. \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{7771.20 \times 7.5}{1000} \\ &= \text{Rs. } 58.28. \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically

Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

Monthly rent for cost of superstructure = Total rent - Monthly rent for land and development cost.

$$= 197 - 58.28$$

$$= \text{Rs. } 138.72.$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000$$

$$= \frac{138.72 \times 1000}{10.14}$$

$$= \text{Rs. } 13677.51.$$

The cost for land and development in rental shelter is determined by the following equation.

$$\text{Cost of land and development} = \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000$$

$$= \frac{58.28 \times 1000}{7.5}$$

$$= \text{Rs. } 7771.20$$

**A Ownership Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 7771.20
- (ii) Cost of construction of superstructure = Rs. 11656.80

**B Rental Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 7771.20
- (ii) Cost of construction of superstructure = Rs. 13677.51

(III) Let X be 60 per cent

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 19428.00 \\ &= \text{Rs. } 11656.80\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 19428.00 \\ &= \text{Rs. } 7771.20.\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation.

Monthly rent same for land and development cost

$$\begin{aligned}&= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{11656.80 \times 7.5}{1000} \\ &= \text{Rs. } 87.42\end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically



Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

Monthly rent for cost of superstructure = Total rent - Monthly rent for land and development cost.

$$= 197 - 87.42$$

$$= \text{Rs. } 109.58.$$

The cost of construction of superstructure in rental shelter is determined by the following equation:

Cost of construction of superstructure

$$= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000$$

$$= \frac{109.58 \times 1000}{10.14}$$

$$= \text{Rs. } 10806.11.$$

The cost for land and development in rental shelter is determined by the following equation.

$$\text{Cost of land and development} = \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000$$

$$= \frac{87.42 \times 1000}{7.5}$$

$$= \text{Rs. } 11656.80$$

**A Ownership Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 11656.80
- (ii) Cost of construction of superstructure = Rs. 7771.20

## **B Rental Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 11656.80
- (ii) Cost of construction of superstructure = Rs. 10806.11

### **(IV) Let X be 80 per cent**

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 19428.00 \\ &= \text{Rs. } 15542.40\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 19428.00 \\ &= \text{Rs. } 3885.60.\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

$$\begin{aligned}\text{Monthly rent same for land and development cost} &= \frac{15542.40 \times 7.5}{1000} \\ &= \text{Rs. } 116.56\end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically

Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and} \\ & \text{development cost.} \\ &= 197 - 116.56 \\ &= \text{Rs. } 80.44 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{80.44 \times 1000}{10.14} \\ &= \text{Rs. } 7932.93 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{116.56 \times 1000}{7.5} \\ &= \text{Rs. } 15542.40 \end{aligned}$$

**A Ownership Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 15542.40
- (ii) Cost of construction of superstructure = Rs. 3885.60

**B Rental Shelter – Second Category -Monthly Payment Capacity is Rs.197**

- (i) Cost of land and development = Rs. 15542.40
- (ii) Cost of construction of superstructure = Rs. 7931.95

### 3. THIRD CATEGORY – MONTHLY PAYING CAPACITY IS RS. 304

$$\text{Cost of Shelter} = \frac{\text{Monthly Payment}}{\text{Recovery factor on Ownership Shelter Concept}} \times 1000$$

$$CS = \frac{MP}{RF_c} \times 1000$$

$$CS = \frac{304}{10.14} \times 1000$$

$$= \text{Rs } 29980.28$$

CS = Cost of shelter.

MP = Monthly payment made by the beneficiary

RF<sub>c</sub> = Capital Recovery factor and is a function of interest rate and number of years of amortization. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the capital Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent and number of years as 15. In this case, the capital recovery factor works out to be 10.14 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO)<sup>(46)</sup>.

In order to decide the options of shelter i.e., plot size, land use allocations in net housing of residential area, cost of development and cost of superstructure, it is essential to divide the cost of house in two components i.e., first component is cost of land and cost of development, and the second

component is cost of construction of superstructure. This is expressed by the following equation:

Cost of house = cost of land + cost of development + cost of construction

(i) **Let X be 20 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 29980.28 \\ &= \text{Rs. } 5996.05 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 29980.280 \\ &= \text{Rs. } 23984.22 \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{5996.05 \times 7.5}{1000} \\ &= \text{Rs. } 44.97 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\ &= 304 - 44.97 \\ &= \text{Rs. } 259.03. \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{259.03 \times 1000}{10.14} \\ &= \text{Rs. } 25545.36 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{44.97 \times 1000}{7.5} \\ &= \text{Rs. } 5996.05 \end{aligned}$$

**A Ownership Shelter–Third Category -Monthly Payment Capacity is Rs. 304**

- (i) Cost of land and development = Rs. 5996.05
- (ii) Cost of construction of superstructure = Rs. 23984.22.

**B Rental Shelter – Third Category -Monthly Payment Capacity is Rs 304**

- (i) Cost of land and development = Rs. 5996.05
- (ii) Cost of construction of superstructure = Rs. 25545.36

**(II) Let X be 40 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 29980.28 \\ &= \text{Rs. } 11992.11\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 29980.28 \\ &= \text{Rs. } 17988.16.\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{11992.11 \times 7.5}{1000} \\ &= \text{Rs. } 89.94 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\ &= 304 - 89.94 \\ &= \text{Rs. } 240.06. \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{214.06 \times 1000}{10.14} \\ &= \text{Rs. } 21105.52 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.



$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{89.94 \times 1000}{7.5} \\ &= \text{Rs. 11992.11} \end{aligned}$$

**A Ownership Shelter – Third Category -Monthly Payment Capacity is Rs. 304**

- (i) Cost of land and development = Rs. 11992.11
- (ii) Cost of construction of superstructure = Rs. 17988.16

**B Rental Shelter – Third Category -Monthly Payment Capacity is Rs 304**

- (i) Cost of land and development = Rs. 11992.11
- (ii) Cost of construction of superstructure = Rs. 21105.52

**(III) Let X be 60 per cent**

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 29980.28 \\ &= \text{Rs. 17988.16} \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 29980.280 \\ &= \text{Rs. 11992.11.} \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the

payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{17988.16 \times 7.5}{1000} \\
 &= \text{Rs. } 134.91.
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned}
 \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\
 &= 304 - 134.91 \\
 &= \text{Rs. } 169.09.
 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned}
 &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
 &= \frac{169.09 \times 1000}{10.14} \\
 &= \text{Rs. } 16668.63.
 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{134.91 \times 1000}{7.5} \\ &= \text{Rs. } 17988.16 \end{aligned}$$

**A Ownership Shelter – Third Category -Monthly Payment Capacity is Rs. 304**

- (i) Cost of land and development = Rs. 17988.16
- (ii) Cost of construction of superstructure = Rs. 11992.11

**B Rental Shelter – Third Category -Monthly Payment Capacity is Rs 304**

- (i) Cost of land and development = Rs. 17988.16
- (ii) Cost of construction of superstructure = Rs. 16668.63

**(IV) Let X be 80 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 29980.28 \\ &= \text{Rs. } 23984.22 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 29980.28 \\ &= \text{Rs. } 5996.05 \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use

allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{23984.22 \times 7.5}{1000} \\
 &= \text{Rs. } 179.88
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned}
 \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\
 &= 304 - 179.88 \\
 &= \text{Rs. } 124.12.
 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000$$

$$= \frac{124.12 \times 1000}{10.14}$$

$$= \text{Rs.}12231.75.$$

The cost for land and development in rental shelter is determined by the following equation.

$$\text{Cost of land and development} = \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000$$

$$= \frac{179.88 \times 1000}{7.5}$$

$$= \text{Rs.}23984.22.$$

**A Ownership Shelter – Third Category -Monthly Payment Capacity is Rs. 304**

- (i) Cost of land and development = Rs. 23984.22
- (ii) Cost of construction of superstructure = Rs. 5996.05

**B Rental Shelter – Third Category -Monthly Payment Capacity is Rs 304**

- (i) Cost of land and development = Rs. 23984.22
- (ii) Cost of construction of superstructure = Rs. 12231.75

**4. FOURTH CATEGORY – MONTHLY PAYING CAPACITY IS RS. 440**

$$\text{Cost of Shelter} = \frac{\text{Monthly Payment}}{\text{Recovery factor on Ownership Shelter Concept}} \times 1000$$

$$CS = \frac{MP}{RF_c} \times 1000$$

$$CS = \frac{440}{10.14} \times 1000$$

$$= \text{Rs.}43392.50$$

CS = Cost of shelter.

MP = Monthly payment made by the beneficiary

RF<sub>c</sub>= Capital Recovery factor and is a function of interest rate and number of years of amortization. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the capital Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent and number of years as 15. In this case, the capital recovery factor works out to be 10.14 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO)<sup>(46)</sup>.

In order to decide the options of shelter i.e., plot size, land use allocations in net housing of residential area, cost of development and cost of superstructure, it is essential to divide the cost of house in two components i.e., first component is cost of land and cost of development, and the second component is cost of construction of superstructure. This is expressed by the following equation:

$$\text{Cost of house} = \text{cost of land} + \text{cost of development} + \text{cost of construction}$$

(I) Let X be 20 per cent

$$\begin{aligned} \text{Cost of land} + \text{cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 43392.50 \\ &= \text{Rs. } 8678.50 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 43392.50 \\ &= \text{Rs. } 34714.00 \end{aligned}$$

Where, 'X' is the percentage of the cost of land and cost of development.

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

$$\begin{aligned}
 &\text{Monthly rent same for land and development cost} \\
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{8678.50 \times 7.5}{1000} \\
 &= \text{Rs. 65.08}
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned}
 \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\
 &= 440 - 65.08 \\
 &= \text{Rs. 374.92}
 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned}
 &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
 &= \frac{374.92 \times 1000}{10.14} \\
 &= \text{Rs.}36970.41.
 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned}
 \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\
 &= \frac{65.08 \times 1000}{7.5} \\
 &= \text{Rs.}8678.50
 \end{aligned}$$

**A Ownership Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 8678.50
- (ii) Cost of construction of superstructure = Rs. 34714.00

**B Rental Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 8678.50
- (ii) Cost of construction of superstructure = Rs. 36970.41

(II) Let X be 40 per cent

$$\begin{aligned}
 \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\
 &= \frac{40}{100} \times 43392.50 \\
 &= \text{Rs.}17357.00
 \end{aligned}$$

$$\begin{aligned}
 \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\
 &= \frac{60}{100} \times 43392.50 \\
 &= \text{Rs.}26035.50.
 \end{aligned}$$

Where, 'X' is the percentage of the cost of land and cost of development.



The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

$$\begin{aligned} &\text{Monthly rent same for land and development cost} \\ &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{17357.00 \times 7.5}{1000} \\ &= \text{Rs. } 130.17. \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and} \\ &\hspace{15em} \text{development cost.} \\ &= 440 - 130.17 \\ &= \text{Rs. } 309.83. \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned}
 &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
 &= \frac{309.83 \times 1000}{10.14} \\
 &= \text{Rs.} 30548.32
 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned}
 \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\
 &= \frac{130.17 \times 1000}{7.5} \\
 &= \text{Rs.} 17357.00
 \end{aligned}$$

**A Ownership Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 17357.00
- (ii) Cost of construction of superstructure = Rs. 26035.50

**B Rental Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 17357.00
- (ii) Cost of construction of superstructure = Rs. 30548.32

**(III) Let X be 60 per cent**

$$\begin{aligned}
 \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\
 &= \frac{60}{100} \times 43392.50 \\
 &= \text{Rs.} 26035.50
 \end{aligned}$$

$$\begin{aligned}
 \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\
 &= \frac{40}{100} \times 43392.50 \\
 &= \text{Rs.} 17357.00.
 \end{aligned}$$

Where, 'X' is the percentage of the cost of land and cost of development.

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{26035.50 \times 7.5}{1000} \\ &= \text{Rs. 195.26} \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned}
\text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\
&= 440 - 195.26 \\
&= \text{Rs. } 244.74.
\end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned}
&= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
&= \frac{244.74 \times 1000}{10.14} \\
&= \text{Rs. } 24126.23.
\end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned}
\text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\
&= \frac{195.26 \times 1000}{7.5} \\
&= \text{Rs. } 26035.50
\end{aligned}$$

**A Ownership Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 26035.50
- (ii) Cost of construction of superstructure = Rs. 17357.00

**B Rental Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 26035.00
- (ii) Cost of construction of superstructure = Rs. 24126.23

(IV) Let X be 80 per cent

$$\begin{aligned}
\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\
&= \frac{80}{100} \times 43392.50 \\
&= \text{Rs. } 34714.00
\end{aligned}$$

$$\begin{aligned}
 \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\
 &= \frac{20}{100} \times 43392.50 \\
 &= \text{Rs. } 8678.50
 \end{aligned}$$

Where, 'X' is the percentage of the cost of land and cost of development.

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{34714.00 \times 7.5}{1000} \\
 &= \text{Rs. } 260.35
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the

capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\ &= 440 - 260.35 \\ &= \text{Rs. } 179.65 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{179.65 \times 1000}{10.14} \\ &= \text{Rs. } 17704.14. \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{260.35 \times 1000}{7.5} \\ &= \text{Rs. } 34714.00. \end{aligned}$$

**A Ownership Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 34714.00
- (ii) Cost of construction of superstructure = Rs. 8678.50

**B Rental Shelter – Fourth Category -Monthly Payment Capacity is Rs. 440**

- (i) Cost of land and development = Rs. 34714.00
- (ii) Cost of construction of superstructure = Rs. 17704.14

5. **FIFTH CATEGORY – MONTHLY PAYING CAPACITY IS RS. 632**

$$\text{Cost of Shelter} = \frac{\text{Monthly Payment}}{\text{Recovery factor on Ownership Shelter Concept}} \times 1000$$

$$CS = \frac{MP}{RF_c} \times 1000$$

$$CS = \frac{632}{10.14} \times 1000$$

$$= \text{Rs.}62327.41$$

CS = Cost of shelter.

MP = Monthly payment made by the beneficiary

RF<sub>c</sub> = Capital Recovery factor and is a function of interest rate and number of years of amortization. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the capital Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent and number of years as 15. In this case, the capital recovery factor works out to be 10.14 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO)<sup>(46)</sup>.

In order to decide the options of shelter i.e., plot size, land use allocations in net housing of residential area, cost of development and cost of superstructure, it is essential to divide the cost of house in two components i.e., first component is cost of land and cost of development, and the second

component is cost of construction of superstructure. This is expressed by the following equation:

Cost of house = cost of land + cost of development + cost of construction

(I) **Let X be 20 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 62327.41 \\ &= \text{Rs. } 12465.48 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 62327.41 \\ &= \text{Rs. } 49861.93. \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{12465.48 \times 7.5}{1000} \\ &= \text{Rs. } 93.49 \end{aligned}$$



Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and} \\ &\quad \text{development cost.} \\ &= 632 - 93.49 \\ &= \text{Rs. } 538.51. \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{538.51 \times 1000}{10.14} \\ &= \text{Rs. } 53102.95. \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{93.49 \times 1000}{7.5} \\ &= \text{Rs. } 12465.48 \end{aligned}$$

**A Ownership Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 12465.48
- (ii) Cost of construction of superstructure = Rs. 49861.93

**B Rental Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 12465.48
- (ii) Cost of construction of superstructure = Rs. 53102.95

**(II) Let X be 40 per cent**

Where 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 62327.41 \\ &= \text{Rs. 24930.96}\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 62327.41 \\ &= \text{Rs.37396.44}\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{24930.96 \times 7.5}{1000} \\ &= \text{Rs. } 186.98 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter.

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\ &= 632 - 186.98 \\ &= \text{Rs. } 445.02. \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{445.02 \times 1000}{10.14} \\ &= \text{Rs. } 43878.50 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{186.98 \times 1000}{7.5} \\ &= \text{Rs. } 24930.96 \end{aligned}$$

### **A Ownership Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 24930.96
- (ii) Cost of construction of superstructure = Rs. 37396.44

### **B Rental Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 24930.96
- (ii) Cost of construction of superstructure = Rs. 43878.50

#### **(III) Let X be 60 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 62327.41 \\ &= \text{Rs. } 37396.44\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 62327.41 \\ &= \text{Rs. } 24930.96\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned} &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{37396.44 \times 7.5}{1000} \\ &= \text{Rs. 280.47.} \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and} \\ &\hspace{15em} \text{development cost.} \\ &= 632 - 280.47 \\ &= \text{Rs. 351.53.} \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{351.53 \times 1000}{10.14} \\ &= \text{Rs. 34654.04.} \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 100 \\ &= \frac{280.47 \times 1000}{7.5} \\ &= \text{Rs. } 37396.44. \end{aligned}$$

**A Ownership Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 37396.44
- (ii) Cost of construction of superstructure = Rs. 24930.96

**B Rental Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 37396.44
- (ii) Cost of construction of superstructure = Rs. 34654.04

**(IV) Let X be 80 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 62327.41 \\ &= \text{Rs. } 49861.93 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 62327.41 \\ &= \text{Rs. } 12465.48 \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use

allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{49861.93 \times 7.5}{1000} \\
 &= \text{Rs. } 373.96
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter.

$$\begin{aligned}
 \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\
 &= 632 - 373.96 \\
 &= \text{Rs. } 258.04
 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned}
 &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
 &= \frac{258.04 \times 1000}{10.14} \\
 &= \text{Rs. } 25429.58
 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 100 \\ &= \frac{373.96 \times 1000}{7.5} \\ &= \text{Rs. 49861.93} \end{aligned}$$

**A Ownership Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 49861.93
- (ii) Cost of construction of superstructure = Rs. 12465.48

**B Rental Shelter – Fifth Category -Monthly Payment Capacity is Rs. 632**

- (i) Cost of land and development = Rs. 49861.93
- (ii) Cost of construction of superstructure = Rs. 25429.58

**6. SIXTH CATEGORY – MONTHLY PAYING CAPACITY IS RS. 1011**

$$\text{Cost of Shelter} = \frac{\text{Monthly Payment}}{\text{Recovery factor on Ownership Shelter Concept}} \times 1000$$

$$CS = \frac{MP}{RF_c} \times 1000$$

$$CS = \frac{1011}{10.14} \times 1000$$

$$= \text{Rs.99704.14}$$

CS = Cost of shelter.

MP = Monthly payment made by the beneficiary

RF<sub>c</sub>=Capital Recovery factor and is a function of interest rate and number of years of amortization. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the capital Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent and



number of years as 15. In this case, the capital recovery factor works out to be 10.14 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO)<sup>(46)</sup>

In order to decide the options of shelter i.e., plot size, land use allocations in net housing of residential area, cost of development and cost of superstructure, it is essential to divide the cost of house in two components i.e., first component is cost of land and cost of development, and the second component is cost of construction of superstructure. This is expressed by the following equation:

Cost of house = cost of land + cost of development + cost of construction

(I) Let X be 20 per cent

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned} \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 99704.14 \\ &= \text{Rs. } 19940.82 \end{aligned}$$

$$\begin{aligned} \text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 99704.14 \\ &= \text{Rs. } 79763.31 \end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
 &= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
 &= \frac{19940.82 \times 7.5}{1000} \\
 &= \text{Rs. 149.55}
 \end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned}
 \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\
 &= 1011 - 149.55 \\
 &= \text{Rs. 861.45}
 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned}
 &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\
 &= \frac{861.45 \times 1000}{10.14} \\
 &= \text{Rs. } 84947.92
 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned}
 \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\
 &= \frac{149.55 \times 1000}{7.5} \\
 &= \text{Rs. } 19940.82
 \end{aligned}$$

**A Ownership Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

- (i) Cost of land and development = Rs. 19940.82
- (ii) Cost of construction of superstructure = Rs. 79763.31

**B Rental Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

- (i) Cost of land and development = Rs. 19940.82
- (ii) Cost of construction of superstructure = Rs. 84947.92

**(II) Let X be 40 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}
 \text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\
 &= \frac{40}{100} \times 99704.14 \\
 &= \text{Rs. } 39881.65
 \end{aligned}$$

$$\begin{aligned}
\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\
&= \frac{60}{100} \times 99704.14 \\
&= \text{Rs.}59822.48
\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}
&= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\
&= \frac{39881.65 \times 7.5}{1000} \\
&= \text{Rs.} 299.11
\end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the

capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and development cost.} \\ &= 1011 - 299.11 \\ &= \text{Rs. 711.89} \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{711.89 \times 1000}{10.14} \\ &= \text{Rs. 70191.71} \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{299.11 \times 1000}{7.5} \\ &= \text{Rs. 39881.65} \end{aligned}$$

**A Ownership Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

- (i) Cost of land and development = Rs. 39881.65
- (ii) Cost of construction of superstructure = Rs. 59822.48

**B Rental Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

- (i) Cost of land and development = Rs. 39881.65
- (ii) Cost of construction of superstructure = Rs. 70191.71

(III) Let X be 60 per cent

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{60}{100} \times 99704.14 \\ &= \text{Rs.59822.48}\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{40}{100} \times 99704.14 \\ &= \text{Rs.39881.65}\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}&= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{59822.48 \times 7.5}{1000} \\ &= \text{Rs. 448.66}\end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked

out the rental Recovery factor. For the homeless group or very Economically Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

$$\begin{aligned} \text{Monthly rent for cost of superstructure} &= \text{Total rent} - \text{Monthly rent for land and} \\ & \hspace{15em} \text{development cost.} \\ &= 1011 - 448.66 \\ &= \text{Rs. } 562.34 \end{aligned}$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$\begin{aligned} &= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000 \\ &= \frac{562.34 \times 1000}{10.14} \\ &= \text{Rs. } 55435.50 \end{aligned}$$

The cost for land and development in rental shelter is determined by the following equation.

$$\begin{aligned} \text{Cost of land and development} &= \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000 \\ &= \frac{448.66 \times 1000}{7.5} \\ &= \text{Rs. } 59822.48 \end{aligned}$$

**A Ownership Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

- (i) Cost of land and development = Rs. 59822.48
- (ii) Cost of construction of superstructure = Rs. 39881.65

## **B Rental Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

- (i) Cost of land and development = Rs. 59822.48  
(ii) Cost of construction of superstructure = Rs. 55435.50

### **(IV) Let X be 80 per cent**

Where, 'X' is the percentage of the cost of land and cost of development.

$$\begin{aligned}\text{Cost of land + cost of development} &= \frac{X}{100} \times \text{cost of house} \\ &= \frac{80}{100} \times 99704.14 \\ &= \text{Rs.79763.31}\end{aligned}$$

$$\begin{aligned}\text{Cost of construction} &= \frac{100 - X}{100} \times \text{cost of house} \\ &= \frac{20}{100} \times 99704.14 \\ &= \text{Rs.19940.82}\end{aligned}$$

The apportionment of cost of house in these two components is based on appropriate shelter solution and divide the capital cost of the house in these two components.

In the rental shelter, the cost of land and cost of development is taken same as the planning standard of ownership shelter i.e., plot size, land use allocations in net housing at residential level, and the cost of development. Keeping the cost of land and development same as in the ownership shelter, the payment of rent on account of this aspect in rental shelter is determined by the following equation:

Monthly rent same for land and development cost

$$\begin{aligned}&= \frac{\text{Capital cost of land and development} \times \text{Rental Recovery Factor}}{1000} \\ &= \frac{79763.31 \times 7.5}{1000} \\ &= \text{Rs. 598.22}\end{aligned}$$

Rental Recovery factor is a function of interest rate. Housing and Urban Development Corporation (HUDCO) and other financial institutions have worked out the rental Recovery factor. For the homeless group or very Economically



Weaker Section category, Housing and Urban Development Corporation (HUDCO) has announced the rate of interest as 9 per cent. In this case the capital recovery factor works out to be 7.5 per Rs. 1000 cost of the shelter, while considering the interest rate of Housing and Urban Development Corporation (HUDCO).

Monthly rent for cost of superstructure = Total rent - Monthly rent for land and development cost.

$$= 1011 - 598.22$$

$$= \text{Rs. } 412.78$$

The cost of construction of superstructure in rental shelter is determined by the following equation.

Cost of construction of superstructure

$$= \frac{\text{Monthly rent for cost of superstructure in rental shelter}}{\text{Capital recovery factor}} \times 1000$$

$$= \frac{412.78 \times 1000}{10.14}$$

$$= \text{Rs. } 40678.28$$

The cost for land and development in rental shelter is determined by the following equation.

$$\text{Cost of land and development} = \frac{\text{Monthly rent for cost of land and development}}{\text{Rental Recovery Factor}} \times 1000$$

$$= \frac{598.22 \times 1000}{7.5}$$

$$= \text{Rs. } 79763.31$$

**A Ownership Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

(i) Cost of land and development = Rs. 79763.31

(iii) Cost of construction of superstructure = Rs. 19940.82.

**B Rental Shelter – Sixth Category -Monthly Payment Capacity is Rs. 1011**

(i) Cost of land and development = Rs. 79763.31

(ii) Cost of construction of superstructure = Rs. 40678.28

**Table 6.2 Total cost of shelter affordable by the first category with monthly paying capacity of Rs. 83.00**

Sl. No.	Per cent of land & development cost (X)	Ownership		Rental	
		Land and development cost	Construction cost	Land and development cost	Construction cost
1.	20	1637.08	6548.32	1637.08	6975.34
2.	40	3274.11	4911.29	3274.16	5764.29
3.	60	4911.24	3274.16	4911.24	4552.26
4.	80	6548.32	1637.08	6548.32	3341.22

**Table 6.3 Total cost of shelter affordable by the second category with monthly paying capacity of Rs. 197.00**

Sl. No.	Per cent of land & development cost (X)	Ownership		Rental	
		Land and development cost	Construction cost	Land and development cost	Construction cost
1.	20	3885.60	15542.40	3885.60	16553.25
2.	40	7771.20	11656.80	7771.20	13677.51
3.	60	11656.80	7771.20	11656.80	10806.11
4.	80	15542.40	3885.60	15542.40	7931.95

**Table 6.4 Total cost of shelter affordable by the third category with monthly paying capacity of Rs. 304.00**

Sl. No.	Per cent of land & development cost (X)	Ownership		Rental	
		Land and development cost	Construction cost	Land and development cost	Construction cost
1.	20	5996.05	23984.22	5996.05	25542.40
2.	40	11992.11	17988.16	11992.11	21105.52
3.	60	17988.16	11992.11	17988.16	16668.63
4.	80	23984.22	5996.05	23984.22	12231.75

**Table 6.5 Total cost of shelter affordable by the fourth category with monthly paying capacity of Rs. 440.00**

Sl. No.	Per cent of land & development cost (X)	Ownership		Rental	
		Land and development cost	Construction cost	Land and development cost	Construction cost
1.	20	8678.50	34714.00	8678.50	36970.41
2.	40	17357.00	26035.50	17357.00	30548.32
3.	60	26035.50	17357.00	26035.50	24126.23
4.	80	34714.00	8678.50	34714.00	17704.14

**Table 6.6 Total cost of shelter affordable by the fifth category with monthly paying capacity of Rs. 632.00**

Sl. No.	Per cent of land & development cost (X)	Ownership		Rental	
		Land and development cost	Construction cost	Land and development cost	Construction cost
1.	20	12465.48	49861.93	12465.48	53102.95
2.	40	24930.96	37398.44	24930.96	43878.50
3.	60	37396.44	24930.96	37396.44	34654.04
4.	80	49861.93	12465.48	49861.93	25429.58

**Table 6.7 Total cost of shelter affordable by the sixth category with monthly paying capacity of Rs. 1011.00**

Sl. No.	Per cent of land & development cost (X)	Ownership		Rental	
		Land and development cost	Construction cost	Land and development cost	Construction cost
1.	20	19940.82	79763.31	19940.82	84947.92
2.	40	39881.65	59822.48	39881.65	70191.71
3.	60	59822.48	39881.65	59822.48	55435.50
4.	80	79763.31	19940.82	79763.31	40679.28

### 3. Cost Component for Land

The cost component for land depends upon the following parameters i.e., net density in plots per hectare, land use percentage allocation in net housing, price of land in Rs. per sq.m.

The different variable in these parameters have been assumed to show the value of cost of land.

The different types of densities are assumed i.e., 500 dwelling/ha, 333 dwelling/ha, 250 dwelling/ha.

The different rates of land are also assumed i.e., Rs 500 per sq.m, Rs 1000 per sq.m, Rs 2000 per sq.m.

To determine the cost of land per shelter unit, the following equation is applied.

$$C = \left( \frac{10000}{P} \times \frac{100}{Z} \right) LP$$

Where,

C = cost of land per shelter unit

P = Net density in plots per hectare

Z = Land use percentage allocation in net housing

LP = Price of land in Rs. Per sq.m.

The three types of densities are assumed

P-1 type - 500

P-2 type – 333

P-3 type – 250

The three different rates of land are also assumed.

R<sub>1</sub> = Rs 500 per sq.m

R<sub>2</sub> = Rs 1000 per sq.m

R<sub>3</sub> = Rs 2000 per sq.m

## COST OF LAND PER SHELTER UNIT

Land cost per sq.m in Rs. → Net Density ↓	Land use of per cent in net housing ↓	Rs. 500	Rs.1000	Rs.2000
500	55	18181.81	36363.63	72727.27
	60	16666.66	33333.33	66666.66
	65	15384.61	30769.23	61538.46
333	55	27300.02	54600.05	109200.10
	60	25025.02	50050.05	100100.10
	65	23100.02	46200.04	92400.09
250	55	36363.63	72727.27	14545.45
	60	33333.33	66666.66	133333.33
	65	30769.23	61538.46	123076.92

#### 4. Cost Component for Development

The cost component for development depends upon the following parameters, i.e., gross residential density in dwelling per hectare, and the cost of infrastructure development per sq.m.

The different variable in these parameters have been assumed to show the value of cost of developments.

The different types of gross density are assumed i.e., 300 dwelling/ha, 200 dwelling/ha, 150 dwelling/ha.

The different rates of infrastructure development are assumed i.e., Rs. 100 per sq.m, Rs. 200 per sq.m, Rs. 500 per sq.m.

To determine the cost of development per shelter unit, the following equation is applied.

$$A = \frac{10,000}{L} \times B$$

Where, A = Cost of infrastructure development per shelter unit in Rs.

L = Gross residential density in dwelling per hectare

B = Cost of infrastructure development per sq.m.

To find the development cost three different types of densities are assumed.

L1 type = 300

L2 type = 200

L3 type = 150

The three different rates of infrastructure development are also assumed.

B1 = Rs. 100 per sq.m

B2 = Rs. 200 per sq.m

B3 = Rs. 500 per sq.m

### COST OF DEVELOPMENT PER SHELTER UNIT

Development cost per sq.m in Rs. → Gross Density ↓	TYPE OF TECHNOLOGY		
	Rs. 100	Rs.200	Rs.500
300	3333.33	6666.66	16666.66
200	5000	10000	25000
150	6666.66	13333.33	33333.33

## 5. Cost Component for Construction of Superstructure

The cost component for construction of superstructure depends upon the following, i.e., built-up area of the superstructure in sq.m, and the rate of construction per sq.m. The different variables in these parameters have been assumed to show the value of the cost of construction of superstructure.

The different types of shelter areas are assumed i.e., 12.00 sq.m, 18.00 sq.m, 24.00 sq.m. The different types of rates of construction have been assumed i.e., Rs 1000.00 per sq.m, Rs 2000.00 per sq.m, and Rs 3000.00 per sq.m

To determine the cost of superstructure per shelter unit, the following equation is applied.

Cost = Area x Rate of construction

$$S = A \times R$$

Where , S = Cost of construction of superstructure in Rs.

A = Built up area of the superstructure in sq.m.

R = Rate of construction per sq.m.

The three types of shelter areas are assumed.

A1 type – 12.00 sq.m

A2 type – 18.00 sq.m

A3 type – 24.00 sq.m

The three types of rates of construction have been assumed.

R1 type = Rs 1000.00 per sq.m

R2 type = Rs 2000.00 per sq.m

R3 type = Rs 3000.00 per sq.m

These rates are achieved with various specifications in single story structure.





**FIRST TYPE OF SHELTER MODEL**

Dwelling Area = 12 sq. m, Net Density = 500 DU/ha, Land use percentage in housing = 60 per cent, Gross density = 300DU/ha

Rate of construction per sq.m (Rs.)	Rate of land per sq.m (Rs.)	Rate of development per sq.m (Rs.)	Rental shelter						Ownership shelter						
			I	II	III	IV	V	VI	I	II	III	IV	V	VI	
1000	500	100	X	X	✓	✓	✓	✓	X	X	X	✓	✓	✓	
		200	X	X	✓	✓	✓	✓	X	X	X	✓	✓	✓	
		500	X	X	X	✓	✓	✓	X	X	X	X	✓	✓	
	1000	1000	100	X	X	X	✓	✓	✓	X	X	X	X	✓	✓
			200	X	X	X	✓	✓	✓	X	X	X	X	✓	✓
			500	X	X	X	X	✓	✓	X	X	X	X	✓	✓
	2000	2000	100	X	X	X	X	X	✓	X	X	X	X	X	✓
			200	X	X	X	X	X	✓	X	X	X	X	X	✓
			500	X	X	X	X	X	✓	X	X	X	X	X	✓
2000	500	100	X	X	X	✓	✓	✓	X	X	X	X	✓	✓	
		200	X	X	X	✓	✓	✓	X	X	X	X	✓	✓	
		500	X	X	X	X	✓	✓	X	X	X	X	✓	✓	
	1000	1000	100	X	X	X	X	✓	✓	X	X	X	X	✓	✓
			200	X	X	X	X	✓	✓	X	X	X	X	X	✓
			500	X	X	X	X	✓	✓	X	X	X	X	X	✓
	2000	2000	100	X	X	X	X	X	✓	X	X	X	X	X	✓
			200	X	X	X	X	X	✓	X	X	X	X	X	✓
			500	X	X	X	X	X	✓	X	X	X	X	X	X
3000	500	100	X	X	X	X	✓	✓	X	X	X	X	✓	✓	
		200	X	X	X	X	✓	✓	X	X	X	X	✓	✓	
		500	X	X	X	X	✓	✓	X	X	X	X	X	✓	
	1000	1000	100	X	X	X	X	✓	✓	X	X	X	X	X	✓
			200	X	X	X	X	✓	✓	X	X	X	X	X	✓
			500	X	X	X	X	X	✓	X	X	X	X	X	✓
	2000	2000	100	X	X	X	X	X	✓	X	X	X	X	X	X
			200	X	X	X	X	X	✓	X	X	X	X	X	X
			500	X	X	X	X	X	✓	X	X	X	X	X	X

## (B) SECOND TYPE OF SHELTER MODEL

First variable Area of shelter = 18 sq.m.

Cost of construction of superstructure = Rs. 1000.00per sq.m.

= Rs.2000.00per sq.m.

= Rs.3000.00per sq.m.

Second variable

Land cost = Rs.500.00per sq.m.

= Rs.1000.00per sq.m.

= Rs.2000.00pers q.m.

Net density = 333 Dwelling/ha

Land use percentage allocation for net housing = 60 per cent

Third variable

Development cost = Rs.100.00per sq.m.

= Rs.200.00per sq.m.

= Rs.500.00per sq.m.

Gross residential density = 200 dwelling/ha

**SECOND TYPE OF SHELTER MODEL**

Dwelling Area = 18 sq. m, Net Density = 333 DU/ha, Land use percentage in housing = 60 per cent, Gross density = 200 DU/ha

Rate of construction per sq.m (Rs.)	Rate of land per sq.m (Rs.)	Rate of development per sq.m (Rs.)	Rental shelter						Ownership shelter					
			I	II	III	IV	V	VI	I	II	III	IV	V	VI
1000	500	100	X	X	X	✓	✓	✓	X	X	X	X	✓	✓
		200	X	X	X	✓	✓	✓	X	X	X	X	✓	✓
		500	X	X	X	X	✓	✓	X	X	X	X	X	✓
	1000	100	X	X	X	X	✓	✓	X	X	X	X	X	✓
		200	X	X	X	X	✓	✓	X	X	X	X	X	✓
		500	X	X	X	X	X	✓	X	X	X	X	X	✓
	2000	100	X	X	X	X	X	✓	X	X	X	X	X	X
		200	X	X	X	X	X	X	X	X	X	X	X	X
		500	X	X	X	X	X	X	X	X	X	X	X	X
2000	500	100	X	X	X	X	✓	✓	X	X	X	X	X	✓
		200	X	X	X	X	✓	✓	X	X	X	X	X	✓
		500	X	X	X	X	X	✓	X	X	X	X	X	✓
	1000	100	X	X	X	X	X	✓	X	X	X	X	X	✓
		200	X	X	X	X	X	✓	X	X	X	X	X	✓
		500	X	X	X	X	X	X	X	X	X	X	X	X
	2000	100	X	X	X	X	X	X	X	X	X	X	X	X
		200	X	X	X	X	X	X	X	X	X	X	X	X
		500	X	X	X	X	X	X	X	X	X	X	X	X
3000	500	100	X	X	X	X	✓	✓	X	X	X	X	X	✓
		200	X	X	X	X	✓	✓	X	X	X	X	X	✓
		500	X	X	X	X	X	✓	X	X	X	X	X	X
	1000	100	X	X	X	X	X	✓	X	X	X	X	X	X
		200	X	X	X	X	X	✓	X	X	X	X	X	X
		500	X	X	X	X	X	X	X	X	X	X	X	X
	2000	100	X	X	X	X	X	X	X	X	X	X	X	X
		200	X	X	X	X	X	X	X	X	X	X	X	X
		500	X	X	X	X	X	X	X	X	X	X	X	X

### (C) THIRD TYPE OF SHELTER MODEL



<u>First variable</u>	Area of shelter	= 24 sq.m.
	Cost of construction of superstructure	= Rs. 1000.00per sq.m. = Rs.2000.00per sq.m. = Rs.3000.00per sq.m.
<u>Second variable</u>	Land cost	= Rs.500.00per sq.m. = Rs.1000.00per sq.m. = Rs.2000.00per sq.m.
	Net density	= 250 Dwelling/ha
	Land use percentage allocation for net housing	= 60 per cent
<u>Third variable</u>	Development cost	= Rs.100.00per sq.m., = Rs.200.00per sq.m., = Rs.500.00per sq.m.,
	Gross residential density	= 150dwelling/ha

### THIRD TYPE OF SHELTER MODEL

Dwelling Area = 24 sq. m, Net Density = 250 DU/ha, Land use percentage in housing = 60 per cent, Gross density = 150 DU/ha

Rate of construction per sq.m (Rs.)	Rate of land per sq.m (Rs.)	Rate of development per sq.m (Rs.)	Rental shelter						Ownership shelter					
			I	II	III	IV	V	VI	I	II	III	IV	V	VI
1000	500	100	x	x	x	x	✓	✓	x	x	x	x	x	✓
		200	x	x	x	x	✓	✓	x	x	x	x	x	✓
		500	x	x	x	x	x	✓	x	x	x	x	x	✓
	1000	100	x	x	x	x	x	✓	x	x	x	x	x	✓
		200	x	x	x	x	x	✓	x	x	x	x	x	x
		500	x	x	x	x	x	x	x	x	x	x	x	x
	2000	100	x	x	x	x	x	x	x	x	x	x	x	x
		200	x	x	x	x	x	x	x	x	x	x	x	x
		500	x	x	x	x	x	x	x	x	x	x	x	x
2000	500	100	x	x	x	x	x	✓	x	x	x	x	x	✓
		200	x	x	x	x	x	✓	x	x	x	x	x	✓
		500	x	x	x	x	x	✓	x	x	x	x	x	x
	1000	100	x	x	x	x	x	✓	x	x	x	x	x	x
		200	x	x	x	x	x	x	x	x	x	x	x	x
		500	x	x	x	x	x	x	x	x	x	x	x	x
	2000	100	x	x	x	x	x	x	x	x	x	x	x	x
		200	x	x	x	x	x	x	x	x	x	x	x	x
		500	x	x	x	x	x	x	x	x	x	x	x	x
3000	500	100	x	x	x	x	x	✓	x	x	x	x	x	x
		200	x	x	x	x	x	✓	x	x	x	x	x	x
		500	x	x	x	x	x	x	x	x	x	x	x	x
	1000	100	x	x	x	x	x	x	x	x	x	x	x	x
		200	x	x	x	x	x	x	x	x	x	x	x	x
		500	x	x	x	x	x	x	x	x	x	x	x	x
	2000	100	x	x	x	x	x	x	x	x	x	x	x	x
		200	x	x	x	x	x	x	x	x	x	x	x	x
		500	x	x	x	x	x	x	x	x	x	x	x	x

## **6.4 FINDINGS**

**1. First Type of Income Category (Rs. 83.00 affordability per month by per person).**

**(A) First type of shelter model of 12 sq.m. on rental basis.**

- This income category (Rs. 83.00 affordability per month by per person) cannot afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 100 per sq.m.
- By applying the principle of cross subsidization of land cost and development cost at the above rate, only dormitory type of accommodation is possible.
- Even after the cross subsidy, the land and development cost at the above rate, the shelter area of 8.0 sq.m. at the rate of Rs. 800 per sq.m., type of shelter is possible.

**2. Second Type of Income Category (Rs. 197.00 affordability per month by per person).**

**(A) First type of shelter model of 12 sq.m. on rental basis**

- This income category (Rs. 197.00 affordability per month by per person) cannot afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 100 per sq.m.

- By applying the principle of cross subsidization of land cost and development cost at the above rate, this income category can afford the first shelter model.

**3. Third Type of Income Category (Rs. 304.00 affordability per month by per person).**

**(A) First type of shelter model of 12 sq.m. on rental basis.**

- This income category (Rs. 304.00 affordability per month by per person) can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**4. Fourth Type of Income Category (Rs. 440.00 affordability per month by per person).**

**(A) First type of shelter model of 12 sq.m. on rental basis.**

- This income category (Rs.440.00 affordability per month by per person) can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 200 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**(B) First type of shelter model of 12 sq.m. on ownership basis.**

- This income category (Rs.440.00 affordability per month by per person) can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**(A) Second type of shelter model of 18 sq.m. on rental basis.**

- This income category (Rs. 440.00 affordability per month by per person) can afford the second shelter model of 18 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**5. Fifth Type of Income Category (Rs. 632.00 affordability per month by per person).**

**(A) First type of shelter model of 12 sq.m. on rental basis.**

- This income category (Rs. 632.00 affordability per month by per person) can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.



- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 200 per sq.m.

**(B) First type of shelter model of 12 sq.m. on ownership basis.**

- This income category (Rs. 632.00 affordability per month by per person) can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 100 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**(A) Second Type of Shelter Model of 18 sq.m. on rental basis**

- This income category (Rs. 632.00 affordability per month by per person) can afford the second shelter model of 18 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.

- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 200 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**(B) Second Type of Shelter Model of 18 sq.m. on ownership basis**

- This income category (Rs. 632.00 affordability per month by per person) can afford the second shelter model of 18 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**(C) Third Type of Shelter Model of 24 sq.m. on rental basis**

- This income category (Rs. 632.00 affordability per month by per person) can afford the third shelter model of 24 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**6. Sixth Type of Income Category (Rs. 1011.00 affordability per month by per person).**

**(A) First type of shelter model of 12 sq.m. on rental basis.**

- This income category (Rs. 1011.00 affordability per month by per person) can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000

per sq.m. upto the land cost of Rs. 2000 per sq.m. and development cost upto Rs. 500 per sq.m.

- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 2000 per sq.m upto the land cost of Rs. 2000 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 3000 per sq.m upto the land cost of Rs. 2000 per sq.m. and development cost upto Rs. 500 per sq.m.

**(B) First type of shelter model of 12 sq.m. on ownership basis.**

- This income category (Rs. 1011.00 affordability per month by per person) can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 2000 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 2000 per sq.m upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 2000 per sq.m upto the land cost of Rs. 2000 per sq.m. and development cost upto Rs. 200 per sq.m.
- This income category can afford the minimum shelter model of 12 sq.m. at the rate of Rs. 3000 per sq.m upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 500 per sq.m.

**(A) Second type of shelter model of 18 sq.m. on rental basis.**

- This income category (Rs. 1011.00 affordability per month by per person) can afford the second shelter model of 18 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 2000 per sq.m. and development cost upto Rs. 100 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 200 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 200 per sq.m.

**(B) Second type of shelter model of 18 sq.m. on ownership basis.**

- This income category (Rs. 1011.00 affordability per month by per person) can afford the second shelter model of 18 sq.m. at the rate of Rs. 1000

per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 500 per sq.m.

- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 200 per sq.m.
- This income category can afford the second shelter model of 18 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**(C) Third Type of Shelter Model of 24 sq.m. on rental basis**

- This income category (Rs. 1011.00 affordability per month by per person) can afford the third shelter model of 24 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the third shelter model of 24 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 200 per sq.m.
- This income category can afford the third shelter model of 24 sq.m. at the rate of Rs. 2000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.

- This income category can afford the third shelter model of 24 sq.m. at the rate of Rs. 3000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

**(C) Third Type of Shelter Model of 24 sq.m. on ownership basis**

- This income category (Rs. 1011.00 affordability per month by per person) can afford the third shelter model of 24 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 500 per sq.m.
- This income category can afford the third shelter model of 24 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 1000 per sq.m. and development cost upto Rs. 100 per sq.m.
- This income category can afford the third shelter model of 24 sq.m. at the rate of Rs. 1000 per sq.m. upto the land cost of Rs. 500 per sq.m. and development cost upto Rs. 200 per sq.m.

In this present chapter, optimal shelter strategies are evolved for different income group of homeless persons based on their affordability (purchasing power), pertaining to shelter. Cost of the shelter is divided into three components, such as, land cost, development cost, and construction of superstructure cost are worked out for arriving at optimal shelter strategies for different income groups of the homeless persons. Based on the above, plausible recommendations are made for the provision of shelter to the socially and economically vulnerable segment of the society (homeless persons), and are presented in the subsequent chapter (chapter –7).



## SUMMARY, RECOMMENDATIONS AND CONCLUSION

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### 7.1 SUMMARY

In this present chapter an attempt is made to present the summary of this investigation, recommendations made for the provision of shelter to the homeless persons, and the conclusion of this investigation.

The summary of the investigation is presented as below:

The present investigation aims at to evolve shelter strategies for the homeless persons of Delhi city. To evolve optimal shelter strategies, at the outset, the Investigator has conducted literature survey pertaining to this present investigation and observed the following:

1. Very less work has been done in this field so far.
2. The homeless persons are clubbed together with pavement dwellers though these persons (homeless persons) have separate identity.
3. The homeless persons are not at all considered as a part of the urban system.
4. The homeless persons are not at all even partly fulfilled their basic needs such as, water, food, cloths, and shelter.
5. The government never evolved any kind of strategies except providing few night shelters for the development of this segment of the population.



Having the above observations in mind, the Investigator had discussed with the officials of various Departments concerned with development, administration, and also concerned with provision of shelter (houses) to various other segment of the communities. It has been observed from the discussion held with several officers that the homeless persons are neglected by every department. Having the above observations, the Investigator conducted investigation at various level about the homeless persons.

The Investigator studied the problems of homeless persons at the grassroots level in the study area very meticulously by using pretested schedules. The entire data collected at homeless persons level is vetted to avoid discrepancy before the analysis. The entire data are processed by using EXCEL and SPSS software's, and analysed very carefully. A set of major findings is observed based on the analysis, and few most important findings are highlighted as follows:

1. The homeless persons are living in a vulnerable socio-economic condition.
2. The homeless persons are not having identity at all in the urban system.
3. Government's development program never reached them so far.
4. Most of them stay in the open spaces even during the adverse climatic conditions.
5. Most of them are involve in hard physical labor activities.
6. Most of them save money and send back to their hometown to safeguard the interest of their kith and kin's.

7. Most of them are illiterate, and little percentage of them have literacy at lower level.
8. Most of the youngsters of this group are married and staying as single due to vulnerable economic conditions.
9. Most of the homeless persons migrated from the poverty stricken states of the city.
10. Most of them migrated for more than ten years and are living in the same vulnerable state from years.

The Investigator further reveals that this particular segment of the population is kept in isolation from the mainstream. Therefore, government's intervention with them is absolutely nil since no development program reached them. By looking at this fact, in this investigation, the Investigator employed system concept to integrate this segment of the population with the mainstream, i.e., in the urban system and established the fact that this group is also a part of the urban system. Further, since this segment of the population is living in such a vulnerable socio-economic conditions, theory of hierarchy of human needs is employed to understand their status. The theory practically explains that this particular segment of population could not fulfill their basic needs even partly.

The government of India shifted its economic policies from socialistic system to capitalistic system, very recently. As a consequence, the government stopped funding fully to social development programs. The government expect a

little contribution from the beneficiary for implementing social development programs. At this juncture, this investigation aim at to evolve strategies to provide shelter to the homeless persons. To satisfy this aim of provision of shelter to the homeless persons, it is essential to understand their (homeless persons) affordability level (purchasing power) towards shelter. Therefore, the Investigator developed and employed a multiple regression model in this investigation at various income groups of homeless persons to calculate their affordability level (purchasing power) towards shelter.

Finally, optimal shelter strategy are evolved by considering the affordability level of various income groups of the homeless persons and made recommendations.

## **7.2 RECOMMENDATIONS**

In this present investigation, an attempt is made to understand the affordability of the different income groups of homeless persons in the study area for evolving feasible shelter strategies for the provision of shelter to them. It indicates that land cost and development cost are at higher side, thereby leaving very low component for construction of superstructure for the shelter. Further the investigation finds that it is possible to overcome this major short coming mentioned above by employing rational design approach and optimal planning decision regarding to evolving strategies for planning of residential schemes of homeless persons. The principle of cross subsidy in the cost of land and cost of development would be helpful in bringing these two components within the affordable limit of the homeless persons to a great extent.

The homeless persons are not able to pay land cost and development cost, but pay only for superstructure construction cost in long run at nominal rate. Therefore, the Investigator strongly recommend for employing the design parameters for various income groups, which are developed, and are presented above in this chapter. While evolving shelter policies, and providing shelter to the homeless persons in accordance with their affordability level.

The Investigator has observed from the investigation that this homeless segment is not at all treated as a part of the urban system. The Investigator stressed for including this segment of the population in the mainstream and consider them while policy framing, plan formulation, development of schemes for the development of the urban system, etc., which will pave the way for comprehensive development in the urban system.

The Investigator also observed that the basic needs (food, water, cloth, shelter) of the homeless persons are not full filled even partly in the study area. In this grave situation, the Investigator evolved plausible recommendations for the provision of affordable shelter to the homeless persons in the study area based on the findings of the thorough investigations, analysis, etc., and are presented as below:

**(1) Planning Policy**

Efficient planning policies are very much essential to provide shelter to this segment of the population. The government never even thought of developing this socially outcaste segment. Therefore, no planning document of the government showed little attention about these segment. At this juncture, the

Investigator stress for having optimal and feasible shelter policies to provide shelter to this segment of the population. To have optimal and feasible shelter policies, the Investigator recommended for the following:

**(i) Integration of residential scheme of homeless persons with other land use of urban development i.e., commercial, industrial and other economic activities.**

The residential schemes of homeless persons if planned and developed in isolation in the study area (mega city) it would not be able to provide the optimum level of quality of living in terms of physical and social environment. The planning and development of residential schemes of homeless persons alone would also not be helpful in giving the benefit of different pricing based on cross subsidization to the beneficiaries of homeless persons. However, the provision of commercial and industrial land use in the schemes would also provide an integrated environment and help in reducing the price of land of plot of homeless persons and would bring this cost component within affordable limits of homeless persons.

Another advantage of integration of this scheme with commercial and industrial land uses would be responsible for making the scheme a self contained within the urban context so that the residents of the area need not to be depend for such facilities already existing in different parts of the city at long distances. The development of housing on the single land use concept will not be able to generate the multiplier effect to that extent as expected from the integrated schemes. Thus, it is evident that the pricing of plot of economically weaker section of the community substantially reduced thereby making the plots within

the affordable limits of the Economically Weaker Section community as well as making the total housing complex as economically viable unit without giving the subsidy. Therefore, it is recommended for integrating the commercial and the industrial land use with the resident land use in such areas.

It shall be demonstrated by the following example: If 20.00 per cent area is reserved from the total area for developing residence for the homeless persons with the average price of development is Rs. 100 per sq. m, then the price of homeless persons can be compensated fully by permitting an area in commercial and industrial of 5 per cent by charging the development cost of Rs. 500 per sq. m. for commercial and industrial land use, which is not very high while considered with market rates.

**(ii) Integration of residential schemes of homeless persons with other residential schemes such as, Economically Weaker Section, Low Income Group and Middle Income Group**

Keeping the shelter scheme for homeless persons alone may be assumed that this shelter scheme is purely meant for socially unacceptable persons. To avoid the social discriminations, it is desirable to have a mix of these homeless person's shelter schemes with other types of housing schemes, such as, Economically Weaker Section, Low Income Group and Middle Income Group. In these mixed schemes, the higher pricing of Middle Income Group, Low Income Group, and Economically Weaker Section plots would help in reducing the pricing of homeless persons plot based on the concept of cross subsidization. Therefore, it is recommended that a mix of housing type for homeless persons, Economically Weaker Section, Low Income Group and Middle Income Group

should be encouraged in such schemes. The percentage of each category will, however, have to be evolved on the basis of nature of demand.

**(iii) Location and integration of housing schemes comprising of homeless persons with other areas of the urban centre.**

It is definite that if the housing scheme of homeless person are located at the periphery of mega urban centre in isolation without suitable mass transportation systems, then these housing scheme would be completely isolated from overall development of the urban centre by ignoring the relationship of the housing with work centres /place or other socio-economic functions. Under this situation, it can be concluded that the allottees would be reluctant to shift to the proposed site. Whereas, if these scheme are located at important parts of the urban centre or in the fringe areas with proper linkage of mass transportation system, these scheme would be very much attractive and form an important part of the urban centre and the allottees would be happy to occupy these shelter. Thus, it is recommended that the shelter scheme of homeless person should be linked with road network and suitable mass transportation systems to different part of the urban centre.

**(2) Layout Planning, Provision of Amenities, Formulation of Size and Shape of Plots should be Based on Realistic and Socially Acceptable Standards Based on Environmental Quality and Economic Criteria.**

Efficient and viable shelter designs are very much essential for habitation. Efficient shelter designs shall reduce the construction cost, and provide maximum output (satisfaction, pleasure, etc.). In India, in fact, several housing schemes, which are meant for the downtrodden communities are lacking behind



optimal design. The government also construct houses just to fulfill the promises, and full fill the gap between the demand of houses and the housing stock. They never think of the living conditions of the houses. Further, more or less, they follow stereotype of designs, wherever the government construct houses without considering the socio, climatic, locally available material, and locally available skill factors. Having this knowledge in mind, the Investigator recommended for considering efficient layout planning and provision of amenities while evolving plan for provision of shelter to this segment of the population.

**(i) Formulation of Shape and Size of Plots**

Adoption of the size of plots in the shelter schemes of homeless persons should not be based on adhoc decision on the pretension of the economic consideration. If the plot sizes are taken as low as 25, 30, 40, sq. m. and the coverage in these plots is as high as 60 to 70 per cent even joining back to back of the two plot without any care of environmental consideration i.e., physical, climatic, social and visual aspects, then the quality of living will not be even within the accepted limits of the residents. The adhoc decision of the selection of plot size would lead to the environment decay, and over the years it will further lead to formation of slums. Further, it has been observed from this present investigation that it is necessary to provide open spaces in the front and the rear at least 2 to 3 meters each with the maximum coverage of 60 per cent. Further, this investigation reveals that it is not only the plot size that matter for the economic viability of the project but also it is a combination of plot size and land



use percentage allocation in net residential activity that needs to be considered while developing the scheme.

It is therefore, concluded that the minimum plot size should be formulated keeping in view of the built-up space at ground floor along with environmental requisite

## **(ii) Provision of Amenities**

Specific land use standards are not practice for the shelter scheme for homeless persons in the country, and only those as specified under Master Plan of respective cities are followed. These standards are infeasible and do not solve the problem of shelter scheme of homeless persons in the country because these are generally adopted from the developed countries and are on very higher side. Thus, plot sizes have gone tremendously low while keeping the land use standards and the amenities, thereby disturbing the overall land use patterns. It is recommended that the land use pattern of these amenities, economics of development and maintenance costs of these amenities should be studied in relation to the performance characteristics of different systems of housing, transportation, sanitation, recreation, commercial and industrial functions. It is essential to establish the correlations between the physical standards and cost components involved in construction and maintenances.

## **(3) Creation of Housing Authority for Providing Shelter to Homeless Persons In Mega Cities**

In India, the government has developed various institutions or organizations for providing services to the needy communities. For example, (i) Delhi Development Authority for providing houses to the Delhi city people

(ii) Slum and Jhuggi Jhompri Department to safeguard the interest of the slum and squatter dwellers. Even though some organizations like the above exist to provide services to some particular segment of the society, their needs and aspiration are not fully fulfilled. In this situation, it is inevitable to have a Housing Authority to safeguard the interest of this vulnerable segment of the society.

This present investigation related to income and paying capacity of the homeless persons towards shelter, and their correlation with the cost of shelter both for rental shelter as well as own shelter have revealed that particular income category of homeless persons can pay either the rent for rental shelter on daily basis or pay the installment for own shelter. However, there is no Authority is available to provide shelter to them either on rental basis or ownership basis.

Therefore, it is strongly recommended for having a "Shelter Authority exclusively For Homeless Persons" should be created in the mega city to plan, develop and implement the viable shelter scheme for homeless persons.

This Authority should be responsible for interacting with other agencies at the city level for allotment of land for such schemes, arranging the finance for implementation of these scheme, registration, forecasting demand for shelter either on rental basis or ownership basis, planning and development of shelter schemes, management of the rental shelter either by themselves or through Non Government Organization's or through some other organizations.

#### **(4) Economic Growth of Beneficiaries**

Safeguarding the economic growth of this segment is very much essential since this segment of the society is living in such a vulnerable economic

condition. This segment of the population need for stable employment opportunities, which lead to earn more income. This segment never has life at all in their career. They just born, chained with all socio-economic evils and may end up with all kinds of social and economic evils. The present investigation also observed that the socio-economic condition of this segment is so vulnerable, and hence, recommended for a provision of community based work centers to this segment along with shelters. This work centers can provide training related to creating skills among the homeless persons, skills up-gradation of homeless persons, provision of cottage industries, etc., which will provide employment opportunities along with constant income earning opportunities. In order to make these schemes more attractive, feasibility studies shall be conducted to arrive at decisions for providing work centres to the beneficiaries at the optimal sites.

**(5) Provision of Identity Card to the Homeless**

Provision of identity card to the homeless persons is inevitable since they are neglected in the society just because they do not have identity. They suffer in various ways quite a lot since they do not have identity. They are forced to live in the same status since they do not have identity because to become a beneficiary in any schemes, identity is very much essential. As a result, generation-to-generation, these segment of the population suffer without having any hold in their lives. Since these people do not have identification, they are not even allowed to cast vote to select their own leader in the democratic form of government. As a result, the politicians are also never bothering about them. In this grave situation, it is inevitable to provide identification to this segment to

safeguard the interest of them. Identification may be provided based on the following criteria.

1. Provision of identity card.
2. Provision of Ration card.
3. Provision of Bank accounts.
4. Provision of bus/ train concession.
5. Enrolling their names in the electoral list.

The Investigator hopes that provision of identification to them itself may solve almost half of their problems. Therefore, provision of identification is the must to safeguard the interest of this segment of the population.

### **7.3 CONCLUSION**

Micro level investigation is very much essential to evolve optimal and feasible shelter strategies for providing shelter to the homeless persons. The available homeless persons of the cities are not accounted fully, and different studies reported their availability in different number, which shows that actual figure of the homeless persons are not yet recorded. During the census survey, the Government Officers allot very little period to identify the homeless persons to conduct the survey. However, their total number, their concentration in different locations, their occupation, their needs and aspirations, their socio-economic standards, customs, traditions, savings, remittances, etc., are not fully explored. Therefore, the Investigator personally conducted a location specific survey at the grassroots level (homeless persons level). Since the Investigator personally conducted the survey, she could understand the various types of

socio-economic and environmental problems being faced by the homeless person, which is very much useful to evolve shelter strategies for their development.

The survey data provide lot of information regarding to income, expenditure, saving, remittance, etc., of the homeless persons and their willingness to pay for housing and their purchasing power for the same. These data are used to understand the affordability level of different income group of the homeless persons pertaining to shelter by employing multiple regression technique.

The homeless persons are not having identity, and are not considered as the part of the system, so far. In this present investigation, it is recommended for including this segment of the population in the whole urban system. Different feasible shelter strategies are evolved based on the affordability level of different income group towards housing, and are recommended.

The Investigator hopes that if the recommended shelter strategies are implemented based on their affordability level, the homeless persons shall get a chance of having shelter, which will be not only fulfilling one of the basic needs of human survival but also pave the way for steady socio-economic development in their lives.

## 7.4 SUGGESTIONS FOR FURTHER RESEARCH

The present investigation has got lot of scope for extension. This present investigation is the miniature of the homeless person of the study area. It has little limitations, such as, limited samples are considered for conducting investigation at the grassroots level due to limited time, and resources availability. Further, in this investigation, theoretical level application is made to include the homeless persons in the whole system. The Investigator observes that this present work has ample scope to extend. They are:

1. Survey at large level shall be conducted to have exact picture of their socio-economic and environment condition.
2. Systems Dynamics model can be developed and employed to understand the various functions of the homeless persons in the urban system. Simulation work also can be done in the model to arrive at plausible alternative decisions to evolve optimal policies, and feasible programs for the development of the homeless persons.
3. Feasible shelter designs can be developed based on the affordability limits of the homeless persons and the same shall be implemented while construction of houses.

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# SHELTER STRATEGY FOR HOMELESS IN DELHI CITY

DEPARTMENT OF ARCHITECTURE & PLANNING  
INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE

## SCHEDULE FOR THE HOMELESS

Location	:	
Interviewer's Name	:	<input style="width: 50px; height: 20px;" type="text"/>
Date of Interview	:	<input style="width: 50px; height: 20px;" type="text"/>
<b>A. PERSONAL DETAILS</b>		
1. Name	:	<input style="width: 80%; height: 20px;" type="text"/>
2. Age	:	<input style="width: 50%; height: 20px;" type="text"/>
3. Sex	:	Male/Female
4. Marital Status	:	Married /Unmarried/Widower/Widow
5. Number of member with you	:	Male <input style="width: 20px; height: 15px;" type="text"/> Female <input style="width: 20px; height: 15px;" type="text"/> Children <input style="width: 20px; height: 15px;" type="text"/>
6. Religion	:	Hindu/Muslim/Sikh/Christian/Other (specify)
7. Mother Tongue	:	<input style="width: 90%; height: 20px;" type="text"/>
8. Education	:	Illiterate/Primary School/Middle/ High/ Secondary School/Graduate/other (specify)
9. Any particular skill	:	Yes/No If Yes? Specify <input style="width: 80%; height: 20px;" type="text"/>
10. Disabilities (if any)	:	Physically Handicapped/Blind/ Leprosy/Mentally retarded/Other (Specify)
11. Ration Card	:	Holder/Non holder
12. Occupation	:	Labour/Self employed/Service/Rickshaw puller/ Rag picker/Unemployed/Hawker/Petty vendor/ Begger/Other (Specify)
13. Distance from work place	:	<input style="width: 90%; height: 20px;" type="text"/>

**B. MIGRATION CHARACTERISTICS**

14. Place of Origin :
15. Period of Stay in :   
current location :
16. Reason for migration : *Employment/ Economic (to improve income)/  
Domestic reason/ No Support in native place/  
Other (specify)*
17. Occupation before migration : *Agriculture Labouror / Industrial Labour/ Casual  
Labour / Business/ Service/ Other (specify)*
18. Owner of any property in  
native place : *Land/ House/ Shop/ Other (specify)*
19. Arrival Companion : *Friend/ Relative/ On your own/ Other (specify)*

**C. LIVING PATTERN**

20. Storage of belongings  
*Pavement/Nearby shop/Carry them/Within night shelter/ Other (specify)*
21. Mode of food procurement  
*Cook own food/Eat from roadside restaurant/ Get food from charity/Sometime eat  
from hotels or get from charity/Other (specify)*
22. Fuel used for cooking  
*Charcoal/Firewood/Keroscene/Other (specify)*
23. Frequency of purchase of daily necessities  
*Daily/Weekly/When required*
24. Source of drinking water  
*Public tap/Hand pump/Night shelter/ Piao/Other (specify)*
25. Place defecation  
*Pavement/Public toilets/ Toilets of Railway Station/Bus Station/ At work Place/ Open  
space/ Sulabh Suchalaya/Night shelter/Other (specify)*
26. Place for bathing  
*Pavement/ Public toilets / Toilets of Railway Station/ Bus Station/ At work place/  
Open Space/ Sulabh Suchalaya/Night shelter/Other (specify)*

27. Place for washing clothes  
*Pavement/Public tap/ At work place/ Hand pump/ Night shelter/ Sulabh Sauchalaya/ Railway Station/ Bus Station/ Other (specify)*
28. Access to medical facilities  
*Private doctor/ Government doctor/ Ignore/ Medicine directly from chemist/ Dependence on traditional treatment/ other (specify)*
29. Frequency of home visits  
*Once in a year/ Once in six month/ Once in one Month/ don't go/Other (specify)*
30. Reasons of home visits  
*For agriculture work/ For family commitment/ Feeling uneasy here/ Festival/For giving money/Other (specify)*
31. Family living during day time  
*On pavement/Go to work place/ Other (specify)*

**D. ECONOMIC CHARACTERISTICS**

32. Income per day/ per month : Rs. \_\_\_\_\_
33. Daily savings : Rs. \_\_\_\_\_
34. Improvement in economic capacity : Yes/ No  
*If yes How: Education/ Vocational training/ Working over time/ Other (specify)*
35. Remittances (monthly) Yes/ No Rs. \_\_\_\_\_
36. Any other source of earning : Yes/No Rs. \_\_\_\_\_
37. Monthly expenditure pattern  
Food , Shelter (If any): , Transport , Health   
Clothes , Toilet and Bathing facilities
38. Monthly expenditure on  
*Smoking / Liquor / Drugs / Cinema / Other (specify) Rs. \_\_\_\_\_.*
39. Sources of Loan  
*Employer/Relative/Friend/No one/Others (specify)*

**E. SHELTER PERCEPTIONS**

40. Reason for migrating to Delhi City only:

*Delhi is Capital/ Relative/ Friend/ Others (Specify)*

41. No. of place you changed till now, specify location and duration.

42. Reasons for staying on this particular pavement

*Near work place/ Social ties/ Facilities nearby/ Safety/ Peaceful Environment/*

*No cost/ Other (specify)*

43. Amount of payment for staying here : Lump sum money Rs. \_\_\_\_\_

As a rent (per day) Rs. \_\_\_\_\_

*Nil*

44. Do you want a better place than this : Yes/ No if yes, then/ Juggi/ Room/Night

*Shelter/Other (specify)*

45. Affordability to shelter (monthly) : Rs. \_\_\_\_\_

46. Dwelling during rainy season

*Stay in same place/ go to nearby building/ make temporary shelter/ go to work place/ go to friends, native place/night shelter/ Railway station/Bus stand/ Fly over/other (specify)*

47. Reason for less preference for Night Shelter : *No access/Prefer the open/ Don't like the environment/ Don't like facilities/ Don't like users/Prefer only in rainy season/winter/ Charges are high /Because family are not allowed/Other (specify).*

48. Future Plans: *Want to settle down here/go back.*

49. Priorities in life : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For 54 data points

	Willingness	Income	Basic need	Entertainn	Remittentar	Age	Period of Stay in Current Location
Willingnes:	1						
Income	0.92536	1					
Basic need	0.6894	0.504363	1				
Entertainn	0.454108	0.501732	0.373349	1			
Remittentar	0.69024	0.867911	0.192768	0.178818	1		
Age	-0.02856	-0.02393	0.036204	0.033063	-0.07963	1	
Period of S	-0.07382	-0.11873	0.013132	0.085745	-0.16181	0.661887	1

SUMMARY OUTPUT

<u>Regression Statistics</u>	
Multiple R	0.976654
R Square	0.953853
Adjusted R	0.950085
Standard E	35.50731
Observatio	54

ANOVA

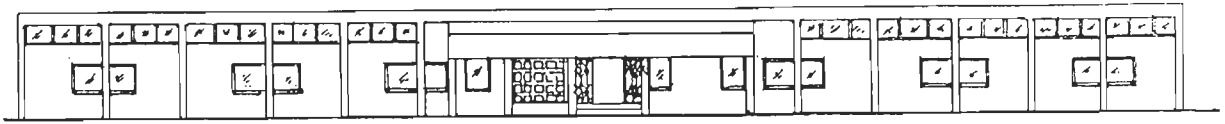
	df	SS	MS	F	Significance F
Regressior	4	1276926	319231.5	253.2038	4.55E-32
Residual	49	61777.68	1260.769		
Total	53	1338704			

	Coefficients	standard Err	t Stat	P-value	Lower 95%	Upper 95%	ower 95.0%	pper 95.0%
Intercept	-39.025	14.8957	-2.61988	0.011677	-68.959	-9.09098	-68.959	-9.09098
Income	0.154048	0.012889	11.95163	3.92E-16	0.128146	0.179951	0.128146	0.179951
Basic need	0.089001	0.02485	3.581536	0.000783	0.039063	0.138938	0.039063	0.138938
Entertainn	-0.14526	0.030359	-4.78484	1.61E-05	-0.20627	-0.08425	-0.20627	-0.08425
Remittentar	-0.0675	0.012348	-5.46618	1.54E-06	-0.09231	-0.04268	-0.09231	-0.04268

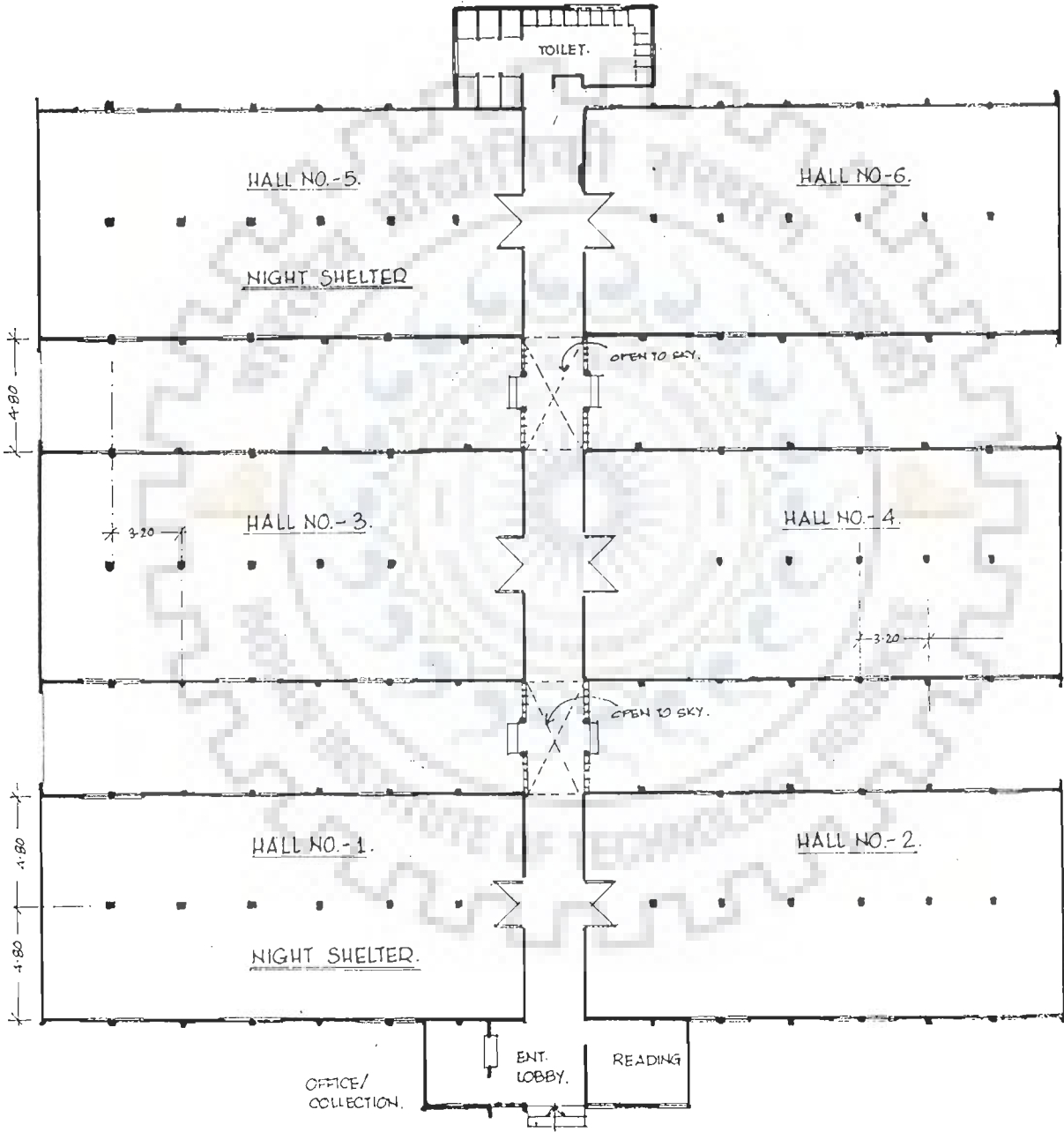


F.N	Occupation	Willingness to	Income	Basic needs	Entertainment	Remittance:	Age	Period	Place	A/I*100	Cal. Affor	Error
18	Rickshaw Puller	200	1500	600	300	500	23	7	Ajmari Gate	13.33333	178.6328	21.3672
323	Rickshaw Puller	400	3000	1210	290	1000	25	4	Ajmari Gate	13.33333	428.9316	-28.9316
325	Labour	100	1200	590	300	200	52	20	Ajmari Gate	8.333333	152.333	-52.333
328	Service	500	4500	1450	1550	600	26	8	Ajmari Gate	11.11111	521.7268	-21.7268
329	Auto Rickshaw	500	3750	1000	500	1500	40	25	Ajmari Gate	13.33333	457.2718	42.7282
125	Labour	300	1800	840	60	0	11	2	Hanuman Mar	16.66667	309.9592	-9.9592
168	Begger	250	1200	710	190	0	22	8	Hanuman Mar	20.83333	191.7844	58.2156
169	Begger	250	1800	650	250	0	18	3	Hanuman Mar	13.88889	264.61	-14.61
5	Rickshaw Puller	500	3000	1400	300	0	18	3	Old Delhi Raih	16.66667	507.6568	-7.6568
39	Self Employed	300	1800	850	210	600	18	13	Old Delhi Raih	16.66667	253.7308	46.2692
27	Service	100	600	600	0	0	18	0.33	Old Delhi Raih	16.66667	119.7292	-19.7292
81	Labour	200	1800	830	60	900	37	12	Old Delhi Raih	11.11111	254.1046	-54.1046
46	Labour	200	1800	450	200	300	35	10	Old Delhi Raih	11.11111	233.047	-33.047
66	Labour	200	1800	750	150	500	52	5	Old Delhi Raih	11.11111	258.008	-58.008
64	Service	100	900	50	300	0	20	0.16	Old Delhi Raih	11.11111	66.4834	33.5166
63	Self Employed	400	3000	900	600	0	30	15	Old Delhi Raih	13.33333	415.8808	-15.8808
71	Labour	200	900	900	0	0	23	5	Pilli Kothi	22.22222	193.5604	6.4396
75	Labour	300	3000	950	250	1800	29	7	Pilli Kothi	10	359.4688	-59.4688
93	Self Employed	150	1500	650	250	400	34	15	Pilli Kothi	10	196.6608	-46.6608
88	Self Employed	250	1200	710	200	0	45	35	Pilli Kothi	20.83333	190.4062	59.5938
94	Self Employed	400	2400	950	260	500	38	14	Pilli Kothi	16.66667	350.1662	49.8338
61	Hawker	500	3000	1100	260	0	35	8	Pilli Kothi	16.66667	482.9116	17.0884
58	Labour	500	3000	1350	300	500	30	10	Pilli Kothi	16.66667	472.1438	27.8562
365	Auto Rickshaw	1000	10500	1000	500	9000	20	0.5	Kamla Market	9.52381	980.6188	19.3812
368	Rickshaw Puller	400	3000	1400	100	1500	19	5	Kamla Market	13.33333	443.8108	-43.8108
369	Rickshaw Puller	250	2400	800	700	800	18	4	Kamla Market	10.41667	256.1144	-6.1144
381	Service	100	1200	500	100	600	18	6	Kamla Market	8.333333	146.4436	-46.4436
387	Rickshaw Puller	200	2100	540	60	1500	30	5	Kamla Market	9.52381	231.8644	-31.8644
138	Goods-Ricksha	200	1800	660	240	600	15	2	Darya Ganj	11.11111	230.4328	-30.4328
121	Service	200	1800	750	300	600	15	1	Darya Ganj	11.11111	231.241	-31.241
113	Thela puller-La	200	1200	860	40	0	25	8	Darya Ganj	16.66667	227.5864	-27.5864
16	Service	200	1500	660	90	600	30	8	Darya Ganj	13.33333	207.5326	-7.5326
188	Thela puller-La	300	1800	1010	40	750	22	10	Darya Ganj	16.66667	284.1568	15.8432
190	Labour	200	900	650	100	150	25	14	Darya Ganj	22.22222	145.4224	54.5776
191	Thela puller-La	250	1800	1100	90	620	48	22	Darya Ganj	13.88889	294.2654	-44.2654

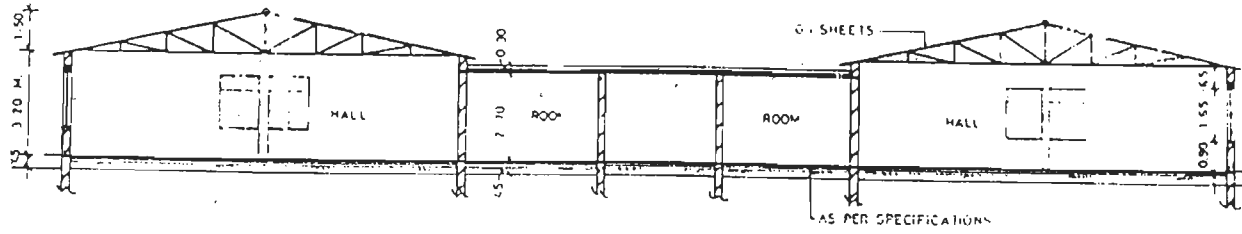
172	Hawker	200	1500	640	260	400	25	12	Darya Ganj	13.33333	194.274	5.726
175	Rickshaw Puller	100	750	600	0	150	15	2	Darya Ganj	13.33333	132.3748	-32.3748
68	Labour	200	1800	700	500	0	39	26	Darya Ganj	11.11111	235.198	-35.198
70	Begger	100	900	560	190	0	42	25	Darya Ganj	11.11111	133.0822	-33.0822
166	Rickshaw Puller	200	1800	700	200	500	26	6	Darya Ganj	11.11111	246.074	-46.074
144	Auto Rickshaw	400	3000	1360	440	1000	25	17	Darya Ganj	13.33333	423.3876	-23.3876
145	Labour	100	600	600	0	0	13	4	Darya Ganj	16.66667	119.7292	-19.7292
149	Service	100	900	540	60	300	16	8	Darya Ganj	11.11111	130.6996	-30.6996
106	Rickshaw Puller	300	1800	1000	200	500	18	4	Chitra Gupta F	16.66667	276.332	23.668
127	Rickshaw Puller	300	2100	900	150	500	35	6	Chitra Gupta F	14.28571	316.7102	-16.7102
40	Labour	200	1200	600	0	600	34	7	Chitra Gupta F	16.66667	170.3116	29.6884
7	Rickshaw Puller	300	2100	1150	190	300	40	13	Chitra Gupta F	14.28571	348.6004	-48.6004
211	Rickshaw Puller	200	1500	960	90	450	34	5	Chitra Gupta F	13.33333	246.9316	-46.9316
215	Rickshaw Puller	200	1200	660	90	450	25	10	Chitra Gupta F	16.66667	173.1004	26.8996
108	Labour	200	1500	800	100	500	36	32	Sadar Bazzar	13.33333	226.3688	-26.3688
311	Labour	200	1500	500	100	800	27	14	Sadar Bazzar	13.33333	177.8288	22.1712
314	Labour	500	3000	1460	340	1000	25	7	Sadar Bazzar	16.66667	447.2556	52.7444
318	Labour	200	1500	800	100	500	26	3	Sadar Bazzar	13.33333	226.3688	-26.3688
322	Labour	500	3750	900	150	1200	30	8	Sadar Bazzar	13.33333	513.7048	-13.7048



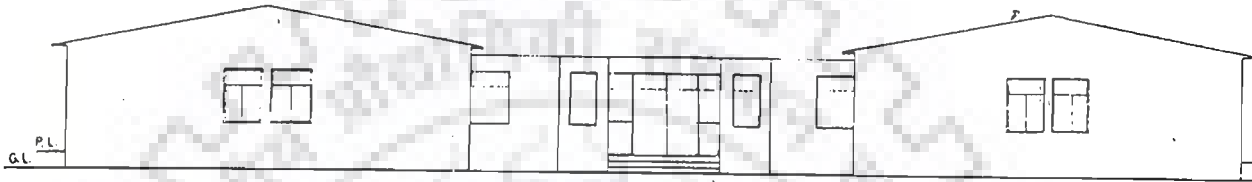
FRONT ELEVATION (SCALE - 1:100)



PLAN (SCALE - 1:100)

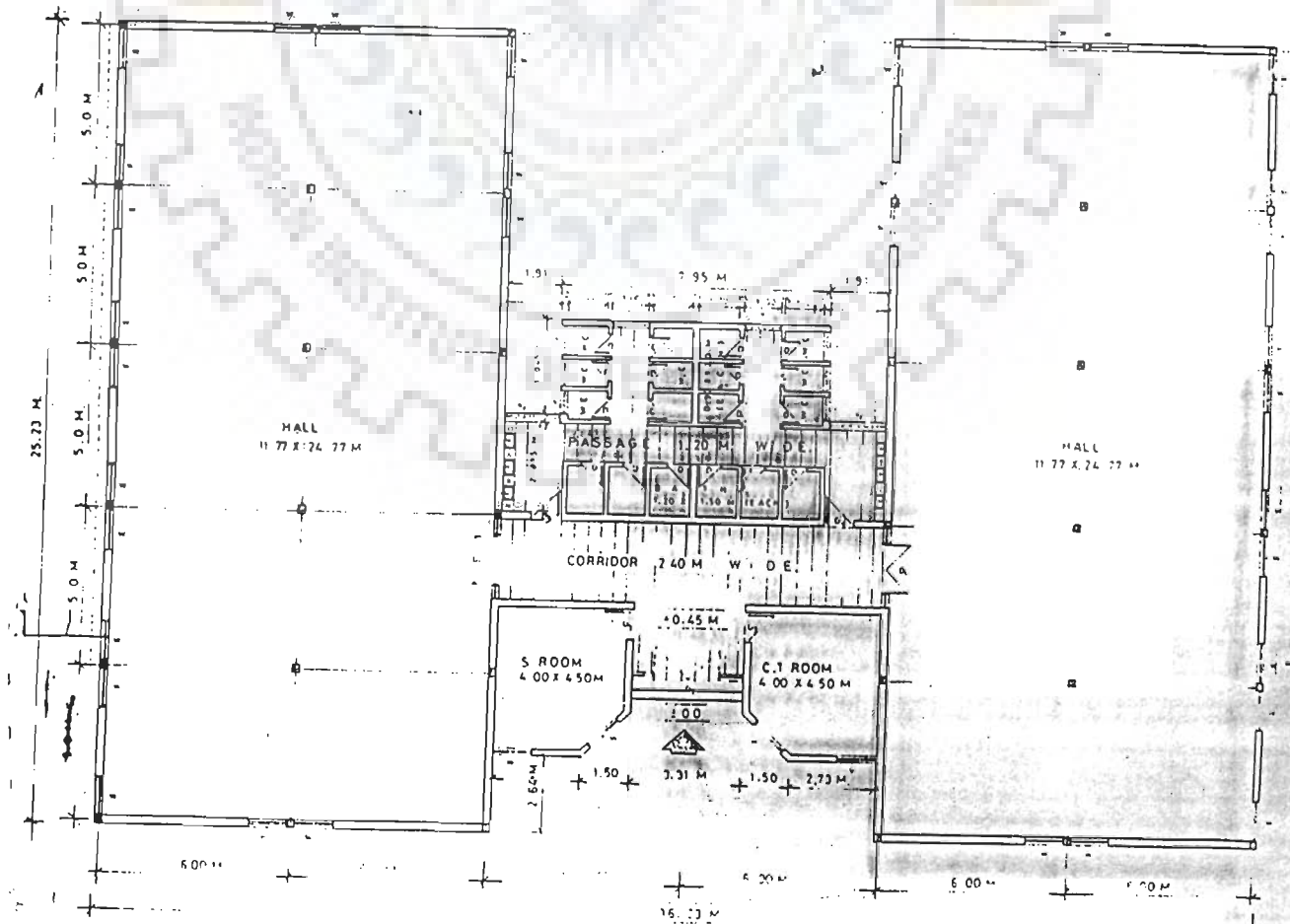


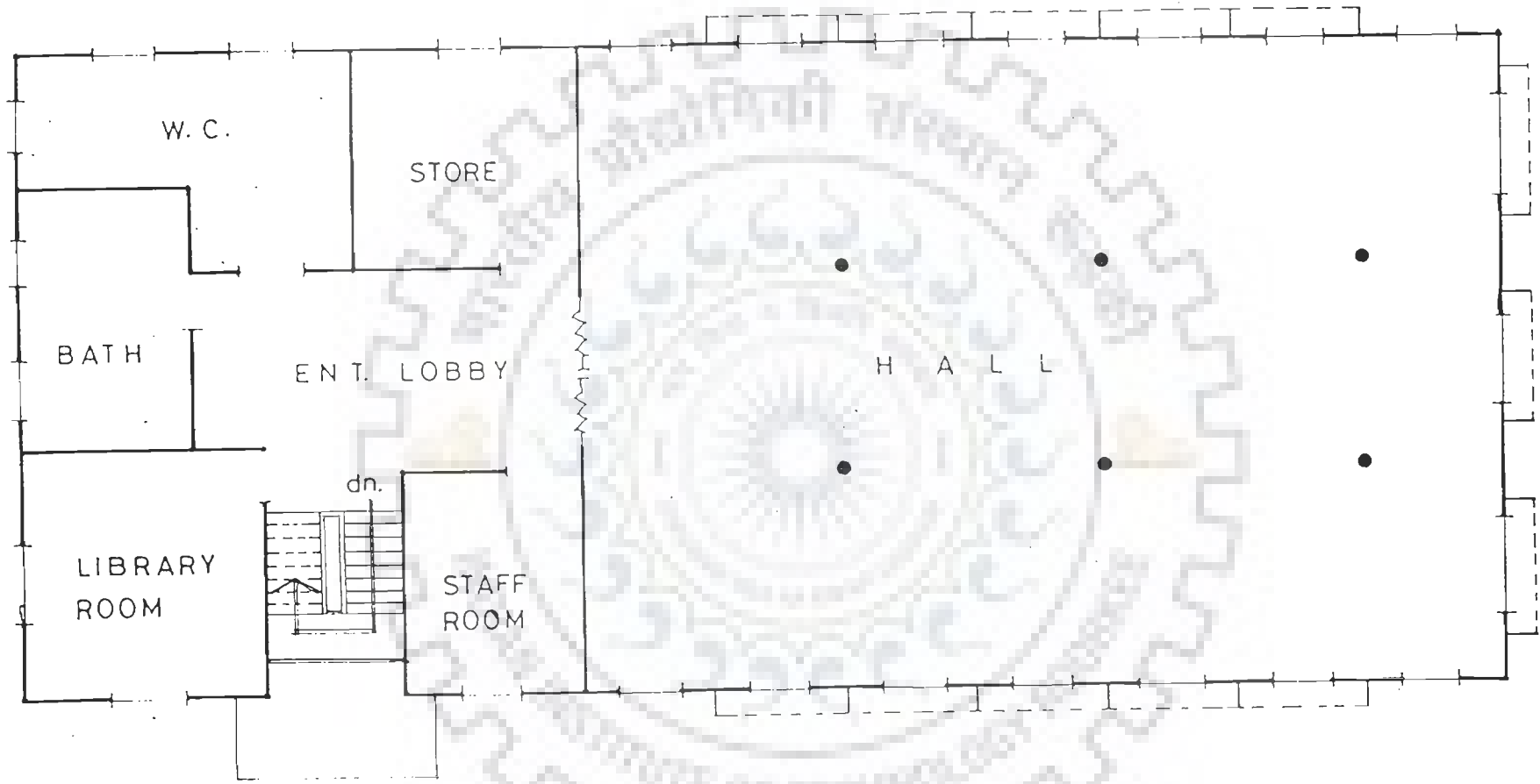
SECTION AT X-Y



FRONT ELEVATION

# MANGOL PURI NIGHT SHELTER.

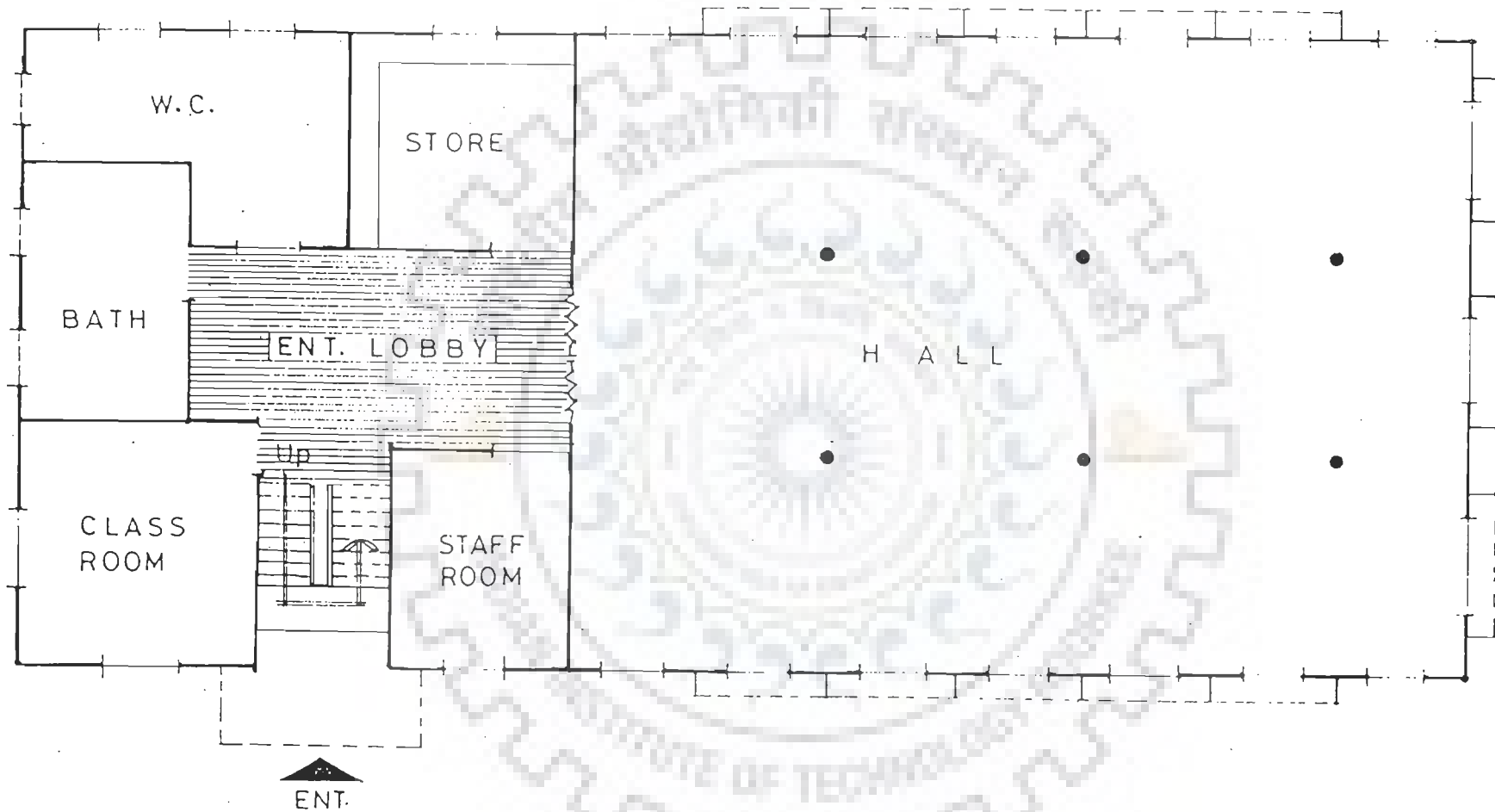




FIRST FLOOR PLAN

(Night Shelter at NIZAMUDIN, DELHI)

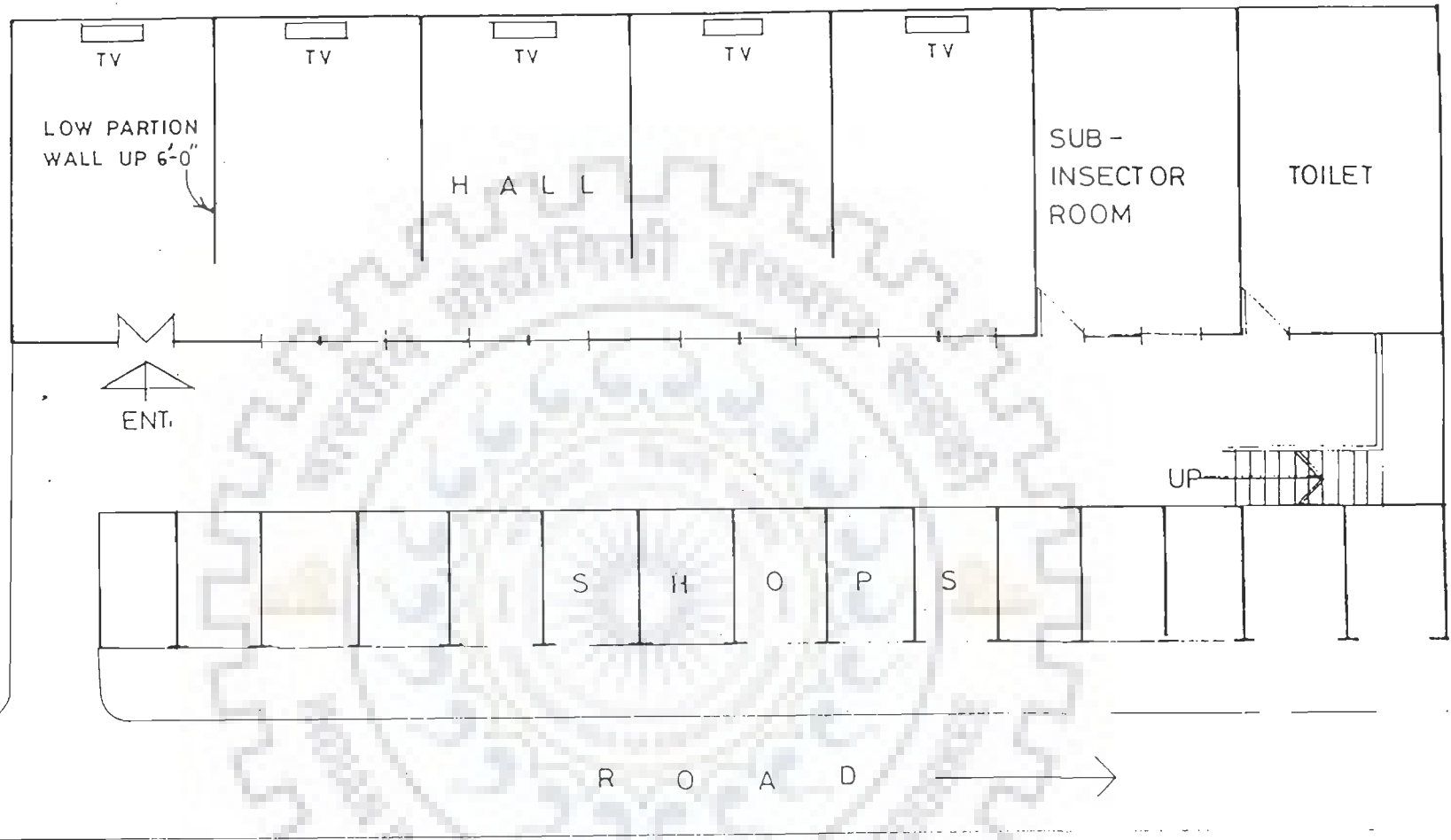
SLEEPING AREA = 285.25 SQM



GROUND FLOOR PLAN

( Night Shelter at NIZAMUDIN, DELHI )

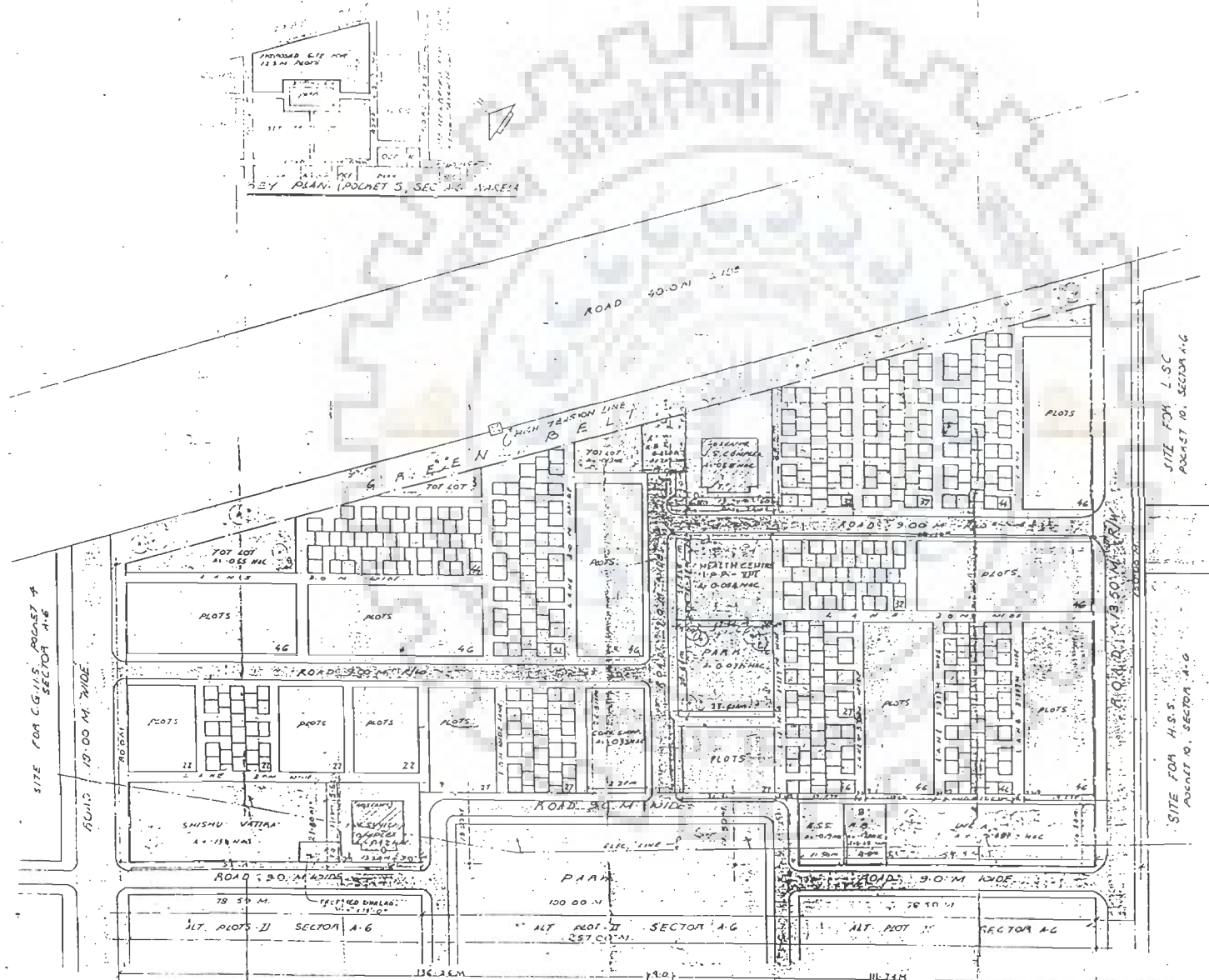
SLEEPING AREA = 285.25 SQM.



PLAN OF NIGHT SHELTER ( OLD DELHI RAILWAY STATION )

SLEEPING AREA = 770.77 SQM

APPENDIX - D



W. C. D.  
PLANNING CELL (SUMMER)

PLAN. CELL (SUMMER)

AREA DATA

TOTAL AREA OF SITE	2.75 HA
TOTAL AREA OF PLOTS	185.000
AREA OF ROAD	12.5000
AREA OF OPEN SPACE	1.5000
TOTAL AREA UNDER PLOTS	195.000
TOTAL AREA UNDER PLOTS (WITH OPEN SPACE)	196.500
TOTAL AREA UNDER PLOTS (WITH OPEN SPACE AND ROAD)	208.500

AREA UNDER COMMUNITY FACILITIES

1. AREA UNDER OPEN SPACE	1.5000
2. AREA UNDER OPEN SPACE (WITH OPEN SPACE)	1.5000
3. AREA UNDER HEALTH CENTRE	0.0000
4. AREA UNDER PARK	0.0000
5. AREA UNDER HEALTH CENTRE	0.0000
6. AREA UNDER PARK	0.0000
7. AREA UNDER HEALTH CENTRE	0.0000
8. AREA UNDER PARK	0.0000
9. AREA UNDER HEALTH CENTRE	0.0000
10. AREA UNDER PARK	0.0000
11. AREA UNDER HEALTH CENTRE	0.0000
12. AREA UNDER PARK	0.0000
13. AREA UNDER HEALTH CENTRE	0.0000
14. AREA UNDER PARK	0.0000
15. AREA UNDER HEALTH CENTRE	0.0000
16. AREA UNDER PARK	0.0000
17. AREA UNDER HEALTH CENTRE	0.0000
18. AREA UNDER PARK	0.0000
19. AREA UNDER HEALTH CENTRE	0.0000
20. AREA UNDER PARK	0.0000

NOTES →  
 1. THE LAYOUT IS BASED ON THE ASSUMPTION THAT THE PLOTS WILL BE DEVELOPED IN PHASES.  
 2. THE LAYOUT IS BASED ON THE ASSUMPTION THAT THE PLOTS WILL BE DEVELOPED IN PHASES.  
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SCHEME BOUNDARY TOWN PLAN  
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LAYOUT PLAN FOR QUARTERS RE-DEVELOPMENT OF 12.50 SQ. MILES AREA AT PLOT 5, SECTOR A.G.

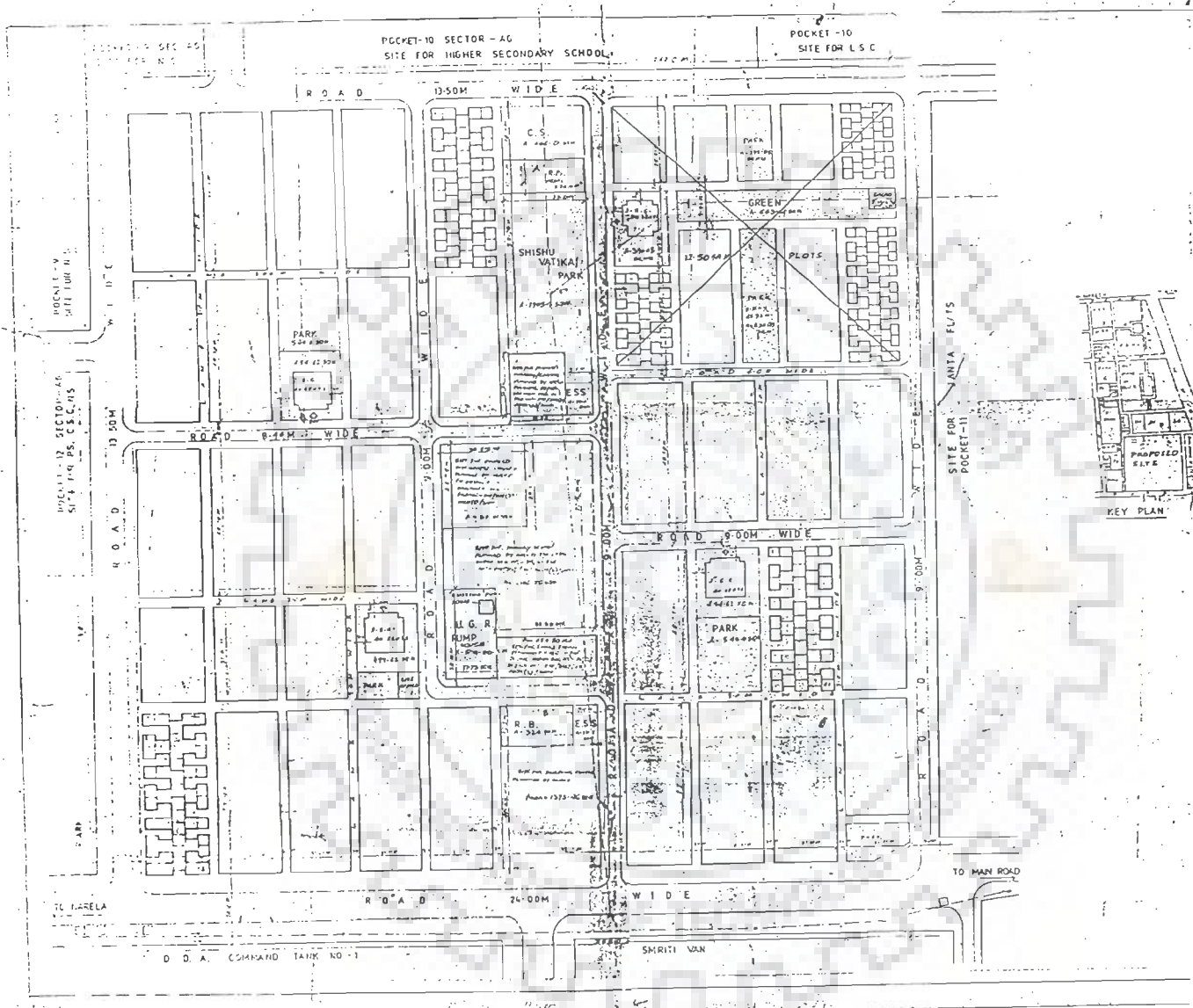
AREA DATA

TOTAL AREA OF SITE	12.50 HA
TOTAL AREA OF PLOTS	125.000
AREA OF ROAD	12.5000
AREA OF OPEN SPACE	1.5000
TOTAL AREA UNDER PLOTS	136.500
TOTAL AREA UNDER PLOTS (WITH OPEN SPACE)	138.000
TOTAL AREA UNDER PLOTS (WITH OPEN SPACE AND ROAD)	150.500

AREA UNDER COMMUNITY FACILITIES

1. AREA UNDER OPEN SPACE	1.5000
2. AREA UNDER OPEN SPACE (WITH OPEN SPACE)	1.5000
3. AREA UNDER HEALTH CENTRE	0.0000
4. AREA UNDER PARK	0.0000
5. AREA UNDER HEALTH CENTRE	0.0000
6. AREA UNDER PARK	0.0000
7. AREA UNDER HEALTH CENTRE	0.0000
8. AREA UNDER PARK	0.0000
9. AREA UNDER HEALTH CENTRE	0.0000
10. AREA UNDER PARK	0.0000
11. AREA UNDER HEALTH CENTRE	0.0000
12. AREA UNDER PARK	0.0000
13. AREA UNDER HEALTH CENTRE	0.0000
14. AREA UNDER PARK	0.0000
15. AREA UNDER HEALTH CENTRE	0.0000
16. AREA UNDER PARK	0.0000
17. AREA UNDER HEALTH CENTRE	0.0000
18. AREA UNDER PARK	0.0000
19. AREA UNDER HEALTH CENTRE	0.0000
20. AREA UNDER PARK	0.0000





# M.C.D.

PLANNING CELL ( SLUM )

## AREA CHART

TOTAL AREA OF THE SITE	6.62 HEC
TOTAL AREA OF PROPOSED PLOTS	12.84 HEC
TOTAL NO. OF 16.00 SAM PLOTS	710
TOTAL PLOTS	1222
<b>AREA UNDER 16.00 SAM PLOTS</b>	
Plot Area - C. AREA	10.64
Plot Area - D. AREA	2.20
<b>AREA UNDER 16.00 SAM PLOTS</b>	<b>12.84</b>
Plot Area - C. AREA	10.64
Plot Area - D. AREA	2.20
<b>TOTAL AREA</b>	<b>12.84</b>
<b>AREA UNDER COMMUNITY FACILITIES</b>	
AREA UNDER C.P.C. (C.S.)	0.48
AREA UNDER T.R. & S. (S)	0.48
AREA UNDER PRIMARY SCHOOL	0.48
AREA UNDER P.S. (C)	0.48
AREA UNDER COMM. PLOT	0.48
AREA UNDER PLAYING GROUND	0.48
AREA UNDER RECREATIONAL GROUND	0.48
AREA UNDER ENTERTAINMENT	0.48
AREA UNDER PUBLIC UTILITY	0.48
AREA UNDER 16.00 SAM PLOTS	12.84
<b>TOTAL AREA UNDER FACILITY</b>	<b>3.84</b>
AREA UNDER ROADWAY	2.88
<b>NET AREA AVAILABLE</b>	<b>9.00</b>

**NOTE:-**  
 1. THE LAYOUT SHALL BE APPROVED BY THE MUNICIPALITY & LOCAL AUTHORITY IN THE MEETING HELD ON 20/05/2010 AT 10:00 AM.  
 2. THE LAYOUT SHALL BE APPROVED BY THE MUNICIPALITY & LOCAL AUTHORITY IN THE MEETING HELD ON 20/05/2010 AT 10:00 AM.  
 3. THE LAYOUT SHALL BE APPROVED BY THE MUNICIPALITY & LOCAL AUTHORITY IN THE MEETING HELD ON 20/05/2010 AT 10:00 AM.  
 4. THE LAYOUT SHALL BE APPROVED BY THE MUNICIPALITY & LOCAL AUTHORITY IN THE MEETING HELD ON 20/05/2010 AT 10:00 AM.

## PROPOSED RE-LOCATION PLAN OF J.J. CLUSTERS AT POCKET 11 NARELA (16.00 sam plots)

LAY-OUT PLAN	
NO.	SCALE - 1:1000
DATE	DATE
DESIGNER	APPROVED BY
DATE	DATE

## CURRICULUM VITAE

1. **Name** : Ruchita Garg
2. **Father's Name** : Shri B. B. Garg
3. **Date of Birth** : 31<sup>st</sup> July 1974
4. **Permanent Address** : 30/38A, New Adersh Nagar,  
New Hardwar Road, Roorkee – 247 667
5. **Educational Qualifications**  
**Master of Planning (Housing)**, School of Planning & Architecture, New Delhi, India, 1999.  
**Bachelor of Architecture**, Jawahar Lal Nehru Engineering College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra, 1997.
6. **Awards**  
 Awarded Senior Research Fellowship from Council of Scientific and Industrial Research (C.S.I.R), New Delhi.
7. **Research Experience**  
 Thesis of B. Arch. Degree in the field of Architecture.  
 Thesis of Master of Planning Degree in the filed of housing.  
 Thesis of Ph.d Degree in the field of housing.
8. **Teaching Experience**  
 From July 1999 to date: Teaching Under Graduate classes of Architecture in the Department of Architecture & Planning, I.I.T. Roorkee
9. **Published Papers**  
 Journal-1, Conference-2, Few are communicated for publication.
10. **Membership**  
 (A) Awarded Associate Membership by "The Council of Architecture" India-A/99/24621.  
 (B) Awarded Associate Membership by the Institute of Town Planners, India – 2000-104