CHAPTER - 1
INTRODUCTION

Objective of the first chapter is to provide the introduction and detailed research methodology used in the present study. Along with that the first chapter also gives details about the background of the study, need and significance of the study, research problem, objectives, hypothesis and organization of the study. Limitations of the study and working definitions in the study are also discussed in the same chapter. This chapter is classified into twelve sections. Section 1.1 explains the urbanization in India, section 1.2 provides background of the present study, section 1.3 gives need and significance of the study, section 1.4 explains research design of the study, section 1.5, 1.6 and 1.7 state the research problem, objectives and hypothesis of the study respectively. Section 1.8 gives details of the research methodology followed by organization of the study in section 1.9. Section 1.10 gives limitations of the study. Section 1.11 provides some working definitions in the study and finally 1.12 provides summary of the first chapter.

1.1 URBANIZATION IN INDIA

Urbanization in India is a late phenomenon observed in 20th century and has little demographic features as compared to world scenario. 1951 census recorded 17.29% as urban population which marginally increased to 17.97% in Census 1961. This percentage further increased to 19.91% in Census 1971. Urbanization in India was significantly low altogether ‘Hindu rate of growth’\textsuperscript{1}. Industrialization in 1970s helped urban population to grow in India. In three consecutive census (1981, 1991 and 2001), percentage of urban population showed increase respectively 23.34%, 25.71% and 27.82%. Urban population is recorded as 31.2% (near to one third of total population) in Census 2011. New economic reforms in 1991 further allowed urban population to grow. Major global centers are mainly established in urban India. These urban centers contribute more than 60% of India’s Gross Domestic Product (GDP).

\textsuperscript{1} Hindu rate of growth is a derogatory term referring to the low annual growth rate of India which was stagnant around 3.5% from 1950s to 1980s.
Though urban population seems growing in India, it is significantly less than the average of urban population of the World i.e. 51.6% (in 2010) and urban population of Asia i.e. 39.2% (in 2010) as mentioned in the ‘World Urbanization Prospectus, 2011’. Urban population of China was 49.2%. In Southern Asia, India had less percentage urban population than Iran (68.9%), Maldives (40%), Pakistan (35.9%) and Bhutan (34.8%) as mentioned in the ‘World Urbanization Prospectus, 2011’. It is however important to note that the definition of urban in each nation varies. Countries having huge urban population have less scope to grow further in the context of urban population whereas the country like India has much scope to grow with second largest population living within the territory.

Since last three decades, urbanization in India has been growing, but the large cities particularly metro cities are less welcoming to the prospective migrants. At the same time, small cities/towns are attracting more migrants from nearby areas. Anyhow the growing urban population could be able to fetch attention of planners towards urban planning and development.

1.2 BACKGROUND OF THE PRESENT STUDY

Five year planning in 20th Century had major concentration on the development of rural India. Few initiatives for urban development too attempted by the government, like Environment Improvement of Urban Slums (EIUS) in 1974, Integrated Development of Small and Medium Towns (IDSMT) in 1979, The Prime Minister’s Grant Project (PMGP) in 1985, Urban Basic Services (UBs) in 1986, Infrastructure Development in Mega Cities in 1993, Prime Minister’s Integrated Urban Poverty Eradication Programme (PMIUPEP) in 1995 etc. But they all were executed on the small scale. It seems natural because of the tiny urban demographic features at the contemporary period.

Since last three decade urban population in India is accelerating. Urbanization in India is characterized by Pseudo urbanization. It became necessary for planners to give attention to the area which contributes more than 60% of nations GDP. Jawaharlal

---

ii Pseudo urbanization is the condition in which a city has formed in an area without a functional infrastructure to support it.
Nehru National Urban Renewal Mission (JNNURM) was introduced in 2005, merging previous many schemes of urban development into a single mission. It is a kind of first attempt by the Central Government with huge investment in identified 65 mission cities scheduled for seven years.

JNNURM comprises of two sub-missions namely Sub-Mission-I: Urban Infrastructure and Governance (UIG) and Sub-Mission-II: Basic Services to Urban Poor (BSUP) intended for 65 mission cities identified from three different categories. Addition to this, it has two programmes namely Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and Integrated Housing and Slum Development Programme (IHSDP) intended for other urban centers in India.

Infrastructure is the backbone of the urban centers. If the well-organized infrastructure is made available to the cities, they can grow inclusively and contribute more to the development of an economy. Sub-mission I: UIG of the JNNURM is initiated to improve infrastructural facilities of the mission cities. The words poor and poverty are predominantly used or considered as rural belonging words. With growing urbanization in India, poors in urban area required keen attention to be given by the

---

[iii] JNNURM identified cities from three different categories. Category A includes Cities/UA with population of 4 million (4 million = 4,000,000) and above as per 2001 census. Category B includes Cities/UA with population of 1 million (1 million = 1,000,000) and above as per 2001 census. Category C includes other selected cities/UA, including state capital and cities/UA of religious/historic and tourist importance.
planners, government bodies and researchers. Poors in urban area have their own distinct characteristics than the poors in rural area.

Sub-mission II: BSUP initiated for integrated development of slums through providing basic services to urban poors. UIG seems infrastructure expansionary sub-mission directly beneficial to whole city whereas BSUP seems rehabilitative and inclusive mission directly beneficial to the slum population and indirectly to the city as a whole. Present research has considered both the sub-missions for the study.

1.3 NEED AND SIGNIFICANCE OF THE PRESENT STUDY

Developing nation like India is characterized with strong backwash effect and weak spread effectiv. JNNURM is a kind of attempt to reduce backwash effect and to make strong spread effect in urban India. JNNURM is a programme by Central Government to fade Pseudo urbanization and make cities nurture with their functional infrastructure in a very efficient and effective manner with inclusive and sustainable development. JNNURM is a kind of ‘Big Push’v to identified mission cities in India. JNNURM has been considered for present study because of its distinct features than any other policies so far made previously for the urban development.

According to Census 2001, Maharashtra state stands at third position with 42.43% of urban population after Goa (49.63%) and Tamil Nadu (44.04%). Maharashtra stands at second position with five mission cities identified under JNNURM after Uttar Pradesh with seven mission cities. Amongst five mission citiesvi in Maharashtra, Nanded is the least small city demographically and possible capabilities of Urban Local Bodies (ULB’s). A Case of small city like Nanded is considered for present study because; it is the only city which falls in the backward region (i.e. Marathwada region of Maharashtra). The other regionsvii in Maharashtra where JNNURM has been

iv Prof. Gunnar Myrdal introduced a theory of Backwash Effect stating regional inequalities rise due to strong backwash effects and the weak spread effects in underdeveloped countries.

v Big Push is a theory developed by Prof. P.N. Rosensetin stating that, ‘There is minimum level of resources that must be devoted to a development programme if it is easy to have any chance of success. Launching a country into self sustaining growth is a little like getting an aeroplane off the ground. There is a critical ground speed which must be passed before the craft can become airborne’.

vi Mumbai, Pune, Nagpur, Nashik and Nanded are the five mission cities identified from Maharashtra.

vii Maharashtra consists of six regions. They are Vidarbha, Marathwada, West Maharashtra, Konkan region, Khandesh and Northern Maharashtra.
implemented are in better condition compared with Marathwada region. Moreover, all other mission cities in Maharashtra are in well off condition.

Metropolitan cities or large cities have their own capacities to cope up with such schemes and huge funding. Small city administration has many difficulties like comparatively less equipped human resources, unfavorable environment, less infrastructural facilities, inexperienced staff, local political interferences, negligence by the people, etc. It becomes appropriate to study small city with such capabilities in the mission where the same mission is criticized as 'big city bias'.

To make urban local bodies strong, effectively functioning and vibrant, the 74th Constitution Amendment Act (CAA) provided the transfer of 18 functions to ULB’s in India. All 18 functions are directly or indirectly linked with the socio-economic development of the cities. Socio-economic parameters under 18 functions are mentioned in the context of planning, regulations, provision of infrastructure in the city and basic services to urban poor. Present study has considered the infrastructure and basic services to urban poor as socio-economic parameters to assess the impact of JNNURM.

1.4 RESEARCH DESIGN:

The present study is the combination of evaluative and explorative research design. Present study makes an attempt to evaluate NWCMC performance in JNNURM. To evaluate the performance, undertaken study collected secondary data from different sources to review and understand the status of Nanded city in JNNURM and its achievements and failures. Altogether, present study makes an attempt to explore the socio-economic impact of JNNURM on the urban poors of the Nanded city. To explore the impact, study conducted a survey of different nine slums in the Nanded city. To explore the impact in detail, primary data has been collected through interview schedule. Addition to this observation method is also utilized in the study.

The present study is classified into two levels for deriving unbiased results, directed by the objectives. Through this piece of research the features, objectives, funding strategy of JNNURM and current status of Nanded city on one side and the socio-
economic impact of JNNURM on Nanded city on other side is reviewed and understood.

Study takes into account the secondary data to review the JNNURM with objective to understand the features, objectives, scope, funding strategy of the mission and current status of Nanded city in the mission. Present study considers the data regarding sanctioned projects, completed projects, approved cost, release of funds, expenditure incurred under both the sub-missions. Attempt has been made to find out the current status of Nanded city and to understand the impact of mission on the urban infrastructural facilities of Nanded city.

On other side, the study considers primary and secondary data to explore the socio-economic impact of JNNURM on urban poors in the Nanded city. Study takes in to account urban poors staying in different nine slums in the Nanded city. Before 2005, NWCMC has identified 58 settlements as ‘Slums’ in Nanded city, out of them 25 had been notified and 33 had been non-notified slums. As Nanded city got identified
under JNNURM, General Body of NWCMC passed a resolution to identify other vulnerable areas as slums. This resolution stated that any housing cluster or settlement with more than 25 houses and lack of adequate infrastructure could be considered as a slum for BSUP.

The number of slums increased from 58 to 148 in the year 2005. This was mainly because of addition of huge number of gunthewari layouts as slums. Gunthewari layouts are unauthorisly formed and privately owned agriculture land without Non Agriculture (NA) certificate. Many people purchased plots on these lands. These layouts were identified as slums since they are characterized by lack of basic services like water supply, drainage, solid waste, etc. and comprises of many Kuccha houses.

It is very important to note that not all the households in these slums are poor. They all are not staying in kuccha house. Many of them belong to higher middle class with good quality of life. On other side, there are some slums developed on the Government lands. People staying on these lands are engaged in informal sector and living in very poor conditions. They all were staying in kuccha houses with very poor quality of life. Present study considered urban poors’ staying in such nine slums to explore the socio-economic impact of the JNNURM.

1.5 STATEMENT OF RESEARCH PROBLEM
This research work is comprehensive study of socio-economic impact of JNNURM on Nanded city of Maharashtra. JNNURM has chosen Nanded as one of the mission city on the basis of its religious importance. Nanded is popular for the presence of Takhat Sachkhand Shri Hazur Abchalnagar Sahib Gurudwara (Sachkhand Gurudwara). A small city like Nanded has great scope to develop itself as a smart urban centre with utilization of huge funding received under JNNURM. In the existing research, an attempt has been made to study the impact of JNNURM on socio-economic conditions of small city like Nanded.

Research problem of the present study states ‘In what way did JNNURM left impact on socio-economic conditions of Nanded city?’ Hence the objectives of the present study are as follows:
1.6 OBJECTIVES OF THE STUDY

1. To study and find the current status of Nanded city under JNNURM.
2. To review and understand the impact of JNNURM on the urban infrastructure facilities of small city like Nanded.
3. To study the possible socio-economic impact of JNNURM on the urban poor of Nanded city.
4. To highlight the achievements and failures of the Nanded Waghala City Municipal Corporation (NWCMC) in the context of JNNURM.

1.7 HYPOTHESIS OF THE STUDY:

1. \(H_{01}\): There is no significant difference in the socio-economic conditions of urban poor in Nanded Waghala City Municipal Corporation (NWCMC) area in the context of JNNURM after its implementation.

2. \(H_{02}\): There is no significant difference in the socio-economic impact on urban poor staying in Relocation and In-Situ slums of the Nanded city.

1.8 RESEARCH METHODOLOGY:

Present study is a case study of Nanded city in the context of Socio-economic impact of JNNURM. Case study is one of the methods of research which studies the particularity and complexity of a single case, coming to understand its activity within important circumstances.

Main domain of the present case study is the urban development through urban renewal mission. The context of the study is confined to the socio-economic impact of the urban renewal programme i.e. JNNURM. Moreover the study selected a case of Nanded city from identified 65 mission cities under JNNURM. Present study is confined to the case of Nanded city only. This study has used deductive process of research for the exploration. Figure 1.3 shows the domain, context and a case of the present study.
1.8.1 SOURCES AND METHODS OF DATA COLLECTION
The present study has collected data both from primary and secondary sources. These sources can be discussed shortly as follows:

A) PRIMARY SOURCES:
Primary data is collected from urban poors staying at different nine slums in Nanded city. Two methods are used to collect primary data in this study. They are as follows-

METHODS USED TO COLLECT PRIMARY DATA:
A.I) Interview Schedule:
Interview schedule was designed only for the urban poors staying in the different nine slums in Nanded City. Purpose behind choosing interview schedule as a method of data collection was that, many of the respondent i.e. urban poors were assumed illiterate. Interview schedule was chosen to get as maximum accurate responses from the respondents. Interview schedule used in this study is a combination of many ‘close-ended’ and few ‘open-ended’ questions. Interview schedule for urban poor designed in such a way that observations were made on the same sample respondents for two different time phases i.e. the condition of parameter ‘before’ (pre) and ‘after’ (post) the implementation of JNNURM. The Reason behind using ‘before’ (pre) and
‘after’ (post) JNNURM interview schedule was to understand, whether any significant difference between ‘before’ (pre) and ‘after’ (post) situation with respect to identified socio-economic circumstances/parameters of urban poor has taken place or not.

Interview schedule was divided into six parts namely I) General Information, II) Household Profile, III) Details of stay during construction of Dwelling Units (DU’s), IV) Basic Services to Urban Poor: Pre and Post JNNURM, V) Five level Likert Scale to judge pre and post JNNURM condition of different parameters and finally VI) major observations by interviewer. Core and important part of the schedule is IV) Basic Services to Urban Poor: Pre and Post JNNURM. This part is further classified into nine sub-parts: A) Housing Condition B) Water Supply Condition C) Sewerage Condition D) Storm Water Condition E) Solid Waste Condition F) Health Condition G) School Distance H) Market/Workplace Distance and I) Other Conditions.

A.II) Observation Method:
As it is an evaluative and explorative study, it has utilized unstructured observation method for the collection of the data. It is a combination of participant observation method and non-participant observation method. Study used participant observation method while collecting the data through interview schedule from urban poor and utilized non-participant observation method when collecting the data on infrastructural facilities in Nanded city. Mechanical device i.e. camera is also utilized to capture some photographs to validate the observation and study.

B) SECONDARY SOURCES:
1.8.2 UNIVERSE OF THE STUDY:

Universe of the present study is confined to the 2225 urban poor in Nanded city, who were staying on the government lands previously. After the implementation of JNNURM, some slums got relocated in newly constructed dwelling units (DU’s) at different locations and some got DU’s at the same locations where they used to stay. These renewed slums are categorized into Relocation and In-Situ slums.

Poors in Relocation Slums are shifted/relocated to newly constructed DU’s from their previous locations. Households in In-Situ Slums are staying on the same location but in newly constructed DUs with new size houses. Out of nine, two slums are Relocation slum and remaining seven are In-Situ slums. Population in two Relocation slums and seven In-Situ slums is clone population\(^{\text{viii}}\). Present study considered the finite universe of 2225 urban poor staying in the newly constructed DUs by NWCMC in different nine slums.

\(^{\text{viii}}\) Clone population is the population which has unique socio-economic characteristics.
1.8.3 SAMPLING DESIGN AND TECHNIQUES UTILIZED:

Present study utilized interview schedule and observation method to collect the data to explore the socio-economic impact of JNNURM on urban poor. During the process, study has chosen 328 samples from the universe of different nine slums. Following are the details of sample size, sample error, sample design and sampling methods used in the study.

A) SAMPLE SIZE:

Instead of using arbitrary ‘Percent Rule of Thumb Sample Size’\textsuperscript{ix} present study utilized ‘Statistical Analysis Requirements Sample Size Specifications’\textsuperscript{x} for choosing appropriate sample size\textsuperscript{6}. There are two methods to identify sample size statistically under ‘Statistical Analysis Requirements Sample Size Specifications’. One is with finite population where the population is already known or limited in character and other is with infinite population where population is unknown or very large. Present study utilized the formula of finite population, because population was known in advance i.e. only 2225 households residing in different nine slums. Following formula is utilized to calculate statistically significant sample size for the study. They have been identified as sample respondent at 95% confidence level and 0.5 proportions.

\[
\frac{N N}{(\text{Sample Size})} = \frac{Z^2 \times \frac{p(1-p)}{c^2}}{1 + \left(\frac{Z^2 \times \frac{p(1-p)}{c^2}}{N}\right)}
\]

Formula 1.1: Sample Size Determination Formula-1\textsuperscript{*}

\begin{align*}
N & \quad (\text{Sample Size}) \quad = \ ? \\
Z & \quad (\text{The value of the standard variate at a given confidence level and to be worked out from table showing area under normal curve}) \quad = 1.96
\end{align*}

\textsuperscript{*Source: www.williamgodden.com/samplesizeformula.pdf}

\textsuperscript{ix} ‘Percent Rule of Thumb’ has intuitive appeal to choose sample at least 10 percent of population. It is criticised by many eminent researcher mentioning is not economical and logical when the population size becomes large. Reason is sample error becomes negligible with larger population.

\textsuperscript{x} ‘Statistical Analysis Requirements Sample Size Specification’ is used when a particular sample is statistically calculated considering z value and variate.
\( p \) (Sample proportion) = 0.5

(1-p) (Sample proportion)

\( c \) (Confidence interval) = 0.05

\( N \) (Population) = 2225

\[
n = \frac{1.96^2 \times 0.5(1 - 0.5)}{0.05^2} \times \frac{0.5(0.5)}{0.05^2 \times 2225} \times 1 + \left( 1.96^2 \times \frac{0.5(0.5)}{0.05^2 \times 2225} \right)
\]

\[
n = \frac{3.8416 \times 0.25}{0.0025} \times \frac{0.25 \times 0.0025 \times 2225}{1 + \left( 3.8416 \times 0.0025 \times 2225 \right)}
\]

\[
n = \frac{3.8416 \times 0.25}{0.0025} \times \frac{0.25 \times 0.0025 \times 2225}{1 + \left( 3.8416 \times 0.0025 \times 2225 \right)}
\]

\[
n = \frac{3.8416 \times 0.25}{0.0025} \times \frac{0.25 \times 0.0025 \times 2225}{1 + \left( 3.8416 \times 0.0025 \times 2225 \right)}
\]

\[
n = \frac{384.16}{1 + (0.1724)}
\]

\[
n = \frac{384.16}{1.1724}
\]

\[
n = 327.669
\]

Round figure sample size (n) = 328

Identification of sample size of 328 respondents is verified with one more formula to get significant sample size. Formula 1.1 is calculated through online source whereas formula 1.2 calculated manually using following formula-

\[
n = \frac{z^2 \times p \times q \times N}{e^2 (N-1) + z^2 \times p \times q}
\]

**Formula 1.2: Sample Size Determination Formula**
\[ n = \frac{1.96^2 \times 0.5 \times 0.5 \times 2225}{0.05^2(2225 - 1) + 1.96^2 \times 0.5 \times 0.5} \]

\[ n = \frac{3.8416 \times 0.25 \times 2225}{0.0025(2224) + 3.8416 \times 0.25} \]

\[ n = \frac{2136.89}{5.56 + 0.9604} \]

\[ n = \frac{2136.89}{6.5204} \]

\[ n = 327.723 \]

Round figure sample size \((n) = 328\)

**Table 1.1: Sample Size Determination**

<table>
<thead>
<tr>
<th>SN</th>
<th>Particular</th>
<th>Value</th>
<th>SN</th>
<th>Particular</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Population Size</td>
<td>2225</td>
<td>4</td>
<td>Sample Size</td>
<td>328</td>
</tr>
<tr>
<td>2</td>
<td>Confidence Level</td>
<td>95%</td>
<td>5</td>
<td>Proportion</td>
<td>0.5</td>
</tr>
<tr>
<td>3</td>
<td>Confidence Interval</td>
<td>0.05</td>
<td>6</td>
<td>Standard Error</td>
<td>0.02551</td>
</tr>
<tr>
<td>3.1</td>
<td>Upper</td>
<td>0.55</td>
<td>7</td>
<td>Relative Standard</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Error</td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Lower</td>
<td>0.45</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Primary data processed through statistical methods*

To make the study scientifically and statistically sound 328 households are randomly selected using above stated formulas to calculate sample size from the finite population of 2225 households staying at different nine slums at 95% confidence level and 0.5 proportions.
B) SAMPLE ERROR:
Any survey has two types of errors namely non-sampling errors and sampling errors. Non-sampling error pertains to all sources of error other than the sample selection method and sample size. Sampling error pertains to error involved in sample selection and sample size. Sample error for the present study is found 5.41 that is not huge for the sample size of 328 respondents.

\[ \pm \text{Sample error} = 1.96 \times \sqrt{\frac{p \cdot q}{n}} \]

Formula 1.3: Sample Error Determination

\[ p \cdot q = 2500 \quad (\text{Variability}) \]
\[ n = 328 \quad (\text{Number of Samples}) \]

\[ \pm \text{Sample error} = 1.96 \times \sqrt{\frac{2500}{328}} \]

\[ \pm \text{Sample error} = 5.411 \]

C) SAMPLING DESIGN/FRAME:
Present study considered nine slums as universe among which two are Relocation slum and remaining seven are In-Situ slums. Table 1.2 shows proportionate samples identified from Relocation and In-Situ slums. Relocation and In-Situ slums have different household population within each but have clone population respectively.

Statistical significant 328 samples are proportionately chosen from all nine slums considering total household population staying within these slums. Though the sample selected from each slum does not match numerically, they are proportionate to the population of respective slums and determined sample size of 328.
Table 1.2: Proportionate Sample Respondents from Relocation and In-Situ Slums in Nanded City

<table>
<thead>
<tr>
<th>SN</th>
<th>Name of Slum</th>
<th>Type</th>
<th>HH Population</th>
<th>Proportion to 328 samples</th>
<th>Round figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Backside of Jai Bhim Nagar</td>
<td>Relocation</td>
<td>510</td>
<td>75.182</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Gautam Nagar</td>
<td>Relocation</td>
<td>312</td>
<td>45.993</td>
<td>46</td>
</tr>
<tr>
<td>4</td>
<td>Jai Bhim Nagar</td>
<td>In-Situ</td>
<td>807</td>
<td>118.964</td>
<td>119</td>
</tr>
<tr>
<td>5</td>
<td>New Kautha</td>
<td>In-Situ</td>
<td>176</td>
<td>25.945</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>Bhimwadi</td>
<td>In-Situ</td>
<td>149</td>
<td>21.964</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>Wadar Wada</td>
<td>In-Situ</td>
<td>116</td>
<td>17.100</td>
<td>17</td>
</tr>
<tr>
<td>8</td>
<td>Khabragade Nagar-I</td>
<td>In-Situ</td>
<td>91</td>
<td>13.414</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>Ishwar Nagar</td>
<td>In-Situ</td>
<td>42</td>
<td>6.191</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>Khabragade Nagar-II</td>
<td>In-Situ</td>
<td>22</td>
<td>3.243</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>2225</td>
<td>327.996</td>
<td>328</td>
</tr>
</tbody>
</table>

Source: Data collected from NWCMC and calculated proportion using statistical methods

D) SAMPLING METHOD:

‘The probability systematic random sampling method’ used for the identification of the sample respondent in each slum. Under this method, the sample is chosen by selecting a random starting point and then picking every \(i\)th element in succession from the sampling frame. The sampling interval \(i\) is determined applying following formula in each slum-

\[
ith \text{ sample } = \frac{N}{n}
\]

**Formula 1.4: Identification of \(i\)th Sample**

\[ N = \text{Total Population of respective slum} \]
\[ n = \text{Proportionate Sample to be chosen from the respective Slum} \]

In all nine slums, it is 7\(^{th}\) item to be calculated and identified as a sample respondent. First sample has selected randomly considering the size of the slum population and remaining samples have been selected at fixed intervals. For In-Situ slums, it was
very easy to select the \( i^{th} \) number because of separate DU’s and straight numbering of the DU’s. It was little difficult in Relocation Slum of Gautam Nagar and Backside of Jai Bhim Nagar.

Relocation slums consist of apartment/flat system DU’s whereas In-Situ slums consist of separate DU’s like row houses. Apartments/flats in Relocation Slum are classified into different buildings like Building ‘A’, Building ‘B’, Building ‘C’ and Building ‘D’. Each building has different number of flats and floors. Further, building structure and number of flats per floor is not alike in Gautam Nagar and Jai Bhim Nagar Relocation slum. For example: Building ‘B’ contains 15 flats in Jai Bhim Nagar whereas Building ‘B’ contains 48 flats in Gautam Nagar Relocation site. In such a case, researcher has again allocated samples to each building proportionately considering total number of samples of respective slums. Table 1.3 of Gautam Nagar can make clear picture as a sample example.

**Table 1.3: Systematic Sampling in Gautam Nagar Relocation Slum**

<table>
<thead>
<tr>
<th>Building</th>
<th>No of Flats</th>
<th>Percent DU’s of Total DU’s</th>
<th>Proportionate Sample of Sample DU 46</th>
<th>Round Figure Sample</th>
<th>( i^{th} ) Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>24</td>
<td>7.692</td>
<td>3.53</td>
<td>4</td>
<td>6(^{th})</td>
</tr>
<tr>
<td>A2</td>
<td>24</td>
<td>7.692</td>
<td>3.53</td>
<td>4</td>
<td>6(^{th})</td>
</tr>
<tr>
<td>A3</td>
<td>24</td>
<td>7.692</td>
<td>3.53</td>
<td>3</td>
<td>8(^{th})</td>
</tr>
<tr>
<td>B1</td>
<td>48</td>
<td>15.384</td>
<td>7.07</td>
<td>7</td>
<td>7(^{th})</td>
</tr>
<tr>
<td>B3</td>
<td>48</td>
<td>15.384</td>
<td>7.07</td>
<td>7</td>
<td>7(^{th})</td>
</tr>
<tr>
<td>B4</td>
<td>48</td>
<td>15.384</td>
<td>7.07</td>
<td>7</td>
<td>7(^{th})</td>
</tr>
<tr>
<td>B5</td>
<td>48</td>
<td>15.384</td>
<td>7.07</td>
<td>7</td>
<td>7(^{th})</td>
</tr>
<tr>
<td>B6</td>
<td>48</td>
<td>15.384</td>
<td>7.07</td>
<td>7</td>
<td>7(^{th})</td>
</tr>
<tr>
<td>Total</td>
<td>312</td>
<td>99.996</td>
<td>45.94</td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data processed through statistics

As the study was confined to urban poors, most of them are engaged in informal employment and not available during the working days. Hence, only Sundays were utilized to collect the data. In few cases, it was found difficult to reach the concern sample respondent on Sundays too. In such a condition present study utilized ‘Drop
Down Substitution Method$^{10}$. Drop down substitution method helped to drop down to the nearest next sample in case of non-availability of the concerned sample. Drop down substitution method is used to get proper results for the study objective with maximum response rate by the respondent samples.

1.8.4 VARIABLES/PARAMETERS UTILIZED IN THE STUDY:
The 74th CAA provided for transfer of 18 functions in respect of planning, regulation, provision of infrastructure and basic services to urban poors listed in the 12th Schedule to ULBs. All 18 functions are directly or indirectly linked with either infrastructure or basic services to urban poors. JNNURM is a mission with focus on the development of the infrastructure of the city and basic services to urban poors in the city. Present study considered different parameters/variables for infrastructure and basic services to urban poor. Present study used following parameters/variables to explore the socio-economic impact of JNNURM on Nanded city.

![Figure 1.5: Parameter/Variables Utilized in the Study](image)

**Infrastructure:**
- Approved Projects
- Approved Cost
- Central Government Assistance
- State Government Assistance
- ULB Share
- Expenditure Incurred by ULB
- Per Capita Cost
- Per Capita Expenditure

**Basic Services to Urban Poor’s:**
- Housing Condition
- Sewage Condition
- Solid Waste Condition
- Storm Water Condition
- Health Condition
- School Distance
- Market Distance
- Inner Road Condition
- Safety
- Standard of Living
1.8.5 PROCESSING AND ANALYSIS OF DATA:
This study utilized different tools to process and analyse the data. They are stated as follows:

II. Graphs and Diagrams
Different types of graphs and diagrams are utilized in the present study. Columns (vertical and horizontal) are utilized to compare the values of different categories. Within columns, different types of cylinder, cones and pyramids are utilized in the study wherever needed. Line charts are also used to show particular trend of variable over a time period. In addition to this, different Pie-charts are utilized in the study. Doughnut is also used in some of the places.

III. Images:
Two types of images are utilized in the study. Web images are captured to identify the location of Nanded city and slums in Nanded city. On the other hand, images are captured through camera to justify the observations and to understand the field level reality and understanding.

IV. Statistical Techniques
In the present research many statistical methods are used to interpret the results of the study. The Data collected through interview schedule is the combination of Nominal, Ordinal, Interval and Ratio Scale. For Nominal data, study utilized percentage and mode as a descriptive statistics where chi square is used as inferential statistics. For the ordinal data, study utilized percentage, median and mode as a descriptive statistics and ANOVA for inferential statistics. For interval and ratio scale, study utilised all major central tendencies like mean, median and mode, skewness and dispersion of data like range, standard deviation as a descriptive statistics and dependent paired t test and ANOVA as inferential statistics. Objective of using these statistical techniques was to interpret the results in more meaningful manner.

V. Use of SPSS
Present research has utilised Statistical Package for Social Sciences (SPSS- version 16.0) to comprehend and explain the results of the present study. SPSS is used to generate tables, charts, descriptive statistics, inferential statistics, hypothesis testing and many more functions. Present study initially prepared input data through
interview schedule. It was coded first and then entered into the SPSS. Afterwards, necessary results are computed using different commands in SPSS.

**1.9 ORGANIZATION OF THE STUDY:**
To explain and attain the results based on the objectives, present study is organized in six chapters. Brief description of these chapters is given below-

**Chapter One: Introduction**
First chapter elucidated the background of the study, need, significance and theoretical base of the study. It also highlights research problem that is addressed during the course of study. The objectives and hypothesis of the study are also mentioned in the same chapter. This chapter also introduces the type of research design and methodology involved for the present study. In addition to this limitations and the organization of the study is also stated within the same chapter.

**Chapter Two: Review of Literature**
The second chapter is dedicated to the review of literature focusing on different studies undertaken on urban issues and outcomes of similar studies. Present chapter also explicated the need of the present study in context of previous studies completed by other research scholars.

**Chapter Three: Profile of Nanded city**
A brief profile of Nanded city in terms of its historical background, regional setting, spatial expansion, demographic features and socio-economic characteristics is provided in this chapter.

**Chapter Four: Review of Jawaharlal Nehru National Urban Renewal Mission (JNNURM)**
Fourth chapter highlighted JNNURM in general and interpreted the data on projects sanctioned, funds approved, funds released and expenditure incurred under two submissions for identified cities. It has also underlined the status of Nanded city in JNNURM.
Chapter Five: Socio-Economic Impact of JNNURM on Nanded City

The fifth chapter explains the statistical analysis and interpretations of information and primary data collected through interview schedule in light of secondary data. There is analysis of the impact of JNNURM on socio-economic conditions of urban poor in Nanded city. Further, this chapter took note of the changes in the infrastructure facilities of Nanded-Waghala Municipal Corporation area.

Chapter Six: Findings and Conclusions

Sixth and final chapter provides a conclusive discourse of the study and major suggestions based on the findings. The achievements and failures of NWCMC in the context of JNNURM are enumerated in this chapter. Justifying answer to the research question formulated in the beginning of the study is given. The scope for the further research in this or allied area is discussed at the end of the chapter.

1.10 LIMITATIONS OF THE STUDY:

a) Present study is a case study of Nanded city. Results derived from the present research are only confined to Nanded city only. They cannot be generalised to other cities.

b) Study has considered two sub-missions of JNNURM namely UIG and BSUP to examine the socio-economic impact on the city. Study is confined only to UIG and BSUP. It has not considered two programmes namely UIDSSMT and IHDP of JNNURM.

c) Study considered only infrastructure and basic services to urban poor like housing, water supply, sewerage etc. as socio-economic variables/parameters to study the impact of JNNURM on Nanded city.

d) Study has considered the urban poor, who were living on the government lands only and excluded the urban poor, who were living on their own land.

1.11 SOME WORKING DEFINITIONS IN THE STUDY

There are some basic concepts/contents in the present study. Definitions of these concepts/contents are given here for the better understanding of the study.
a) City or Town:
Town and city are used as synonyms. In India, town or city is defined by Census. The Definition of town was remained same from the period 1901 to 1951. Up to 1951, the definition of town included a) an inhabited locality with a total population of not less than 5000 persons; b) every municipality, corporation and notified area of whatever size; and c) all civil lines not included within municipal limits.

In 1961, ‘town’ is determined on the basis of four criteria. a) They are a density of not less than 1000 per square mile, b) a minimum population of 5000 c) three fourth of the working population should be engaged in an occupation outside of agriculture and d) the place should have a few characteristics and amenities such as newly founded industrial areas, large housing settlements, and places of tourist importance and civic amenities.

The same definition continued in use up to 1981. Further in 1991 census definition of town got reframed and the same is in the use up to this writing. 1991 census definition of town or city includes: a) places with a municipality, corporation, cantonment board, notified town area committee; and b) places having a minimum population of 5000, c) at least 75 percent of the male working population engaged in non-agricultural pursuits and d) a density of population of at least 400 per sq. km.

b) Urban Renewal:
According to Burns, W. “Urban renewal implies a process by which a large part of town/city like the inner part slowly renews itself and changes its character to fit in with the new socio-economic needs”\(^{11}\).
According to Jha, R. “Urban renewal is a term in urban planning used to denote the redevelopment and rejuvenation of decaying, congested, old city areas that are physically deteriorated, unsafe and poorly planned with improper utilization of land”\(^{12}\).

There are different definitions of urban renewal but the urban renewal is combination of process of redevelopment, rehabilitation, and conservation.
Redevelopment is the process which involves demolition of the existing structure and then reuse of the land thus cleared i.e. replacement of the old structure.

Rehabilitation is a process of putting existing buildings or existing areas which have become outdated and unsatisfactory, back into a worthwhile state through alterations, replacements and repairs to meet the changing socio-economic needs.

Conservation is a process of recycling urban poverty and environment to a new use, re-use or proper use without significant alterations in the area and architecture.

c) Governance:
Governance is the process of making decisions and their implementation. In other words, Governance is the written and unwritten policies, procedures, and decision-making units that control resource allocation within and among institutions. Further urban governance is separate concept. Urban Governance is the sum of the many ways individuals and institutions, public and private, plan and manage the common affairs of the city. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action can be taken. It includes formal institutions as well as informal arrangements and the social capital of citizens.

d) E-Governance:
E-Governance or electronic governance is the delivery of services and information to the public by the extensive use of information technology. E-governance comprises of efficiency, speed and transparency. It includes many services like payment of taxes, delivery of various certificates, grievance redressal and building permissions.

e) Infrastructure:
Urban Infrastructure is classified into four major categories.

Economic Infrastructure that would primarily serve the economic function, such as industries, markets, trading centers and centers of commerce and finance.
Physical Infrastructure that would comprise of power, water and waste disposal systems, transport and communication networks including information technology, housing schools and hospitals in the city.

Environmental/Social Infrastructure includes recreational facilities, sports facilities, parks, gardens and open spaces in the city.

Equity Infrastructure comprises housing for the poor, infrastructure for the informal sector and low cost facilities that enable the poor to access all basic services at affordable costs\textsuperscript{13}.

f) Slum:

‘The slums are residential areas that are physically and socially deteriorated and in which satisfactory family life is impossible. Bad housing is a major index of slum conditions. By bad housing is meant dwellings that have inadequate light and air/ and toilet and bathing facilities; that are in bad repair, dump and improperly heated; that do not afford opportunity for family privacy; that are subject to fire hazard and that overcrowded that land, leaving no space for recreational use\textsuperscript{14}. In other words, slum is a highly populated area in which housing and other living conditions are extremely poor.

Relevant section in Slum Areas Improvement and Clearance Act 1966 reads as follows:

3(1) where the competent authority upon report from any of its officer of other information in its possession is satisfied as respects any area that the buildings in that area-

\begin{itemize}
  \item[a)] Area in any respect unfit for human habitation; or
  \item[b)] Are by reason of dilapidation, overcrowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities, or any combination of these factors are detrimental to safety, health or morals, it may by notification in the Official Gazette, declare such area to be a slum area.
\end{itemize}
1.12 SUMMARY

At the end of the first chapter it can be summarised safely that, there were no major policies for the urban development in 20th century. At the beginning of the 21st century i.e. in 2005, Government of India introduced JNNURM keeping in view the infrastructural development of the cities and basic services to urban poors. It has identified 65 mission cities for the implementation of two sub-missions namely UIG and BSUP. At the same time two more programmes were introduced namely UIDSSMT and IHSDP for all other urban centers in India. JNNURM initially was scheduled for seven years starting from 2005 to 2012. But due to some reasons it was extended further up to 2014.

Present study is a case study of Nanded city in context of socio-economic impact of JNNURM. Nanded is the only city from the backward region of Marathwada among identified five mission cities under JNNURM from Maharashtra State. All other mission cities in Maharashtra are in better condition. Moreover, large cities/metropolitan cities have their own capacities to cope up with such programmes and huge funding, where small cities lack in that. Present study is an attempt in this direction to study the impact of JNNURM on small cities like Nanded.
REFERENCES:

8. Burns and Bush (2009), Marketing Research, Pearson Education, New Delhi p. 369
13. Ibid