State Urban Development Authority
Government of Uttar Pradesh

RAJIV AWAS YOJANA

SLUM FREE CITY PLAN OF ACTION

KANNAUJ

VIKAS BHAWAN


GAURISHANKAR MANDIR

Regional Centre for Urban and Environmental Studies
Osmania University, Hyderabad.
Sponsored by
Ministry of Urban Development, Govt.of India.

Slum Free City Plan of Action – Kannauj City

Regional Centre for Urban and Environmental Studies
(Sponsored by Ministry of Urban Development, Govt. of India)
Osmania University, Hyderabad - 500007

CONTENTS

LIST OF TABLES

LIST OF CHARTS

LIST OF FIGURES

LIST OF PICTURES

LIST OF MAPS

ACRONYMS

BPL –Below Poverty Line

BSUP – Basic Services for Urban Poor

CBD – Central business district

CBO – Community Based Organization

CCA – Compensatory City Allowance

CDP - City Development Plan

CDS - Community Development Societies

CGG - Centre for Good Governance

CO – Community Officer

DPR – Detailed Project Report

DU - Dwelling Unit

DUDA – District Urban Development Agency

EWS - Economic weaker section

FAR –Floor Area Ratio

FSI - Floor Space Index

GIS – Geographical Information System

GoI – Government of India

HH's - Households

HRA – Housing Rent Allowance

HUDCO – Housing And Urban Development Corporation Ltd

IHSDP – Integrated Housing and Slum Development Program

JnNURM – Jawaharlal Nehru National Urban Renewal Mission

LDPE - Low Density Polyethylene

LIG - Low Income Group

LPCD –Litre per capita per day

MIS – Management Information System

MoHUPA – Ministry of Housing and Urban Poverty Alleviation

MLD - Million Litres per Day

MSW –Municipal Solid Waste

NGO's – Non-Governmental Organizations

NHC - Neighborhood Communities

NHG - Neighborhood Groups

NNRC – National Network Resource Centre

NOAPS –National Old Age Pension Scheme

O&M – Operation & Maintenance

PO - Planning Officer

POA - Plan Of Action

PPP - Public Private Partnership

RAY – Rajiv Awas Yojana

RCUES - Regional Centre for Urban and Environmental Studies

RCV - Resident Community Volunteers

SEZ –Special Economic Zone

SFCPoA – Slum Free City Plan of Action

SHG – Self Help Groups

SJSRY – Swarna Jayanti Shahari Rozgar Yojana

SLNA - State Level Nodal Agency

SLSC - State Level Scrutinize Committee

STEP UP - Skill Training for Employment Promotion amongst Urban Poor

SUDA – State Urban Development Agency

TDR - Transferable Development Rights

TPIMA - Third Party Inspection and Monitoring Agency

UCDN - Urban Community Development Network

UDPFI - Urban Development Plan Formulation and Implementation

ULB - Urban Local Body

UPHDB – Uttar Pradesh housing and Development Board

UPJN – Uttar Pradesh Jal Nigam

UPRSAC –Uttar Pradesh Remote Sensing Applications Center

USHA - Urban Statistics for Human Resource & Assessments

UWESP - Urban Women Employment & Self help Programme

UNITS

1 Crore (Cr) – 100 Lakhs

1 Hectare (Ha) -10,000 Square Meters (Sq.mts)

1 Hectare (Ha) -2.471 Acres (Ac)

1 Metric Ton (MT) -1000 Kilograms (Kg)

1 Million – 10 lakhs

1 Square Kilometer (Sq.Km) -100 Hectares (Ha)

EXECUTIVE SUMMARY

The Government of India unveiled a holistic mission "Rajiv Awas Yojana" (RAY) to envision a slum free India, benefitting about 81 million urban poor with affordable housing, decent & dignified living environment and well developed basic amenities. Achieving Slum Free India though appears to be a very difficult exercise, the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), GoI, has categorized the tasks and sub tasks in such a manner, providing a clear roadmap for the state governments to follow certain methodology and process in conducting the categorical steps. Slum Free City Planning is a holistic mission to eradicate poverty, systematize the squatter and hazardous settlements, integrate the plan with other poverty alleviation schemes and make them as regular engines of both socio-economic and sustainable development.

The key aspects of Slum Free City Planning comprises mainly of Urban Planning, Law and Legislation, MIS, GIS, Provision of Land, Community Participation, Stakeholder Convergence, Project Management and Capacity Building. The process starts with conducting slum survey and updating MIS database, preparation of the city and slum level maps in GIS, integration of the spatial and non-spatial data, analysis of the existing situation of slums, preparation of slum specific proposals, involve the community from the inception of project, preparation of DPR, project monitoring and implementation to achieve Slum Free India.

The Ministry of Housing and Urban Poverty Alleviation (MoHUPA) issued guidelines on RAY for preparation of State Slum-free City Plan of Action (SFCPoA), Community Mobilization, MIS and GIS etc. The states have to pass legislation for the assignment of property rights to the slum dwellers, and take steps to prevent new slums, with certain existing reservation of land.

The present report is the tentative Plan of Action for Slum Free City under the scheme of Rajiv Awas Yozana (RAY) sponsored by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), Govt. of India. To implement the scheme, the city of Kannauj is selected as one of the Pilot Cities for the development of 17 slums as part of inclusive growth. The report is structured with prime objective of addressing the existing slums as curative step and also to ensure **slum free Kannauj** as a preventive measure. The report contains 7 sections namely, ***SFCPoA Initial Framework, City Profile & Institutional setup, Assessment of Existing slums, Slum Rehabilitation Strategy, Requirement & Investment, Slum Preventive Startegy, Finanancing strategy*** respectively. The slum – free City Plan of Action includes preparation of Geo-referenced city base map satellite imagery, identifying and demarcating slums and surrounding vacant lands, analyzing the slum profile features, finding infrastructure gap assessment, line estimates and detailed city/slum level analysis. The report provides a gross understanding of slum situation in the city, categorizes the slums, proposes the development mode required for each slum, and majorly phasing the slum development for the next coming five years. The first year prioritized slums have been finalized by conducting various stakeholder meetings under the leadership of "Project Officer", District Urban Development Authority (DUDA) of the city. The report aims to summarize, analyze the slum situation and propose a roadmap to reach slum free Kannauj.

This report is accompanied by Annexure 1 & 2 where the first and second contains the data tables and analysis of each slum profile comprising of socio economic, household and livelihood information, gap assessment and proposed line estimates. **The present report therefore needs to be referred with annexure 1 & 2.**

SLUM FREE KANNAUJ

Kannauj city is the district headquarters of Kannauj district and politically well-known constituency in India. The city has 17 slums with 1920 households. About 12% of the city population lives in slums. Among the slum population, 89% belongs to OBC and SC division of social groups and 8% are living below the poverty line (BPL). It is found that the slums are having a housing deficit of 1533. In concern to Infrastructure, 64% of the slum households do not have access to individual water supply connections and 2 out of 17 slums are not connected to city wide water supply system. Ironically, it is found that about 68% of the slum households practice open defecation. In this context, the plan of action provides line estimates for housing and infrastructure gaps and proposes civic amenities as per RAY guidelines and the report calls for an approval and action to prepare DPR's for year wise phased slums.

ACKNOWLEDGEMENT

The Regional Centre for Urban and Environmental Studies (RCUES), Hyderabad was established in the year 1970 by the Ministry of Urban Development, Government of India in the Osmania University campus. The RCUES caters to the training and research needs of the constituent state governments namely, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Arunachal Pradesh, Nagaland and the Union Territory of Puducherry in the urban sector. Apart from the training programmes, the RCUES is providing capacity building, research and consulting services and has developed exclusive divisions comprising of twenty in house professionals in the areas of Urban Finance, Environment, Urban planning, GIS and Poverty Alleviation.

RCUES, Hyderabad has been awarded the project of preparation of 'Slum Free City Plan of Action' under Rajiv Awas Yojana (RAY) Scheme for Bareilly, Etawah, Kannauj, Mathura, Moradabad, Muzaffarnagar, Raebareli and Rampur of Uttar Pradesh state. The RCUES has completed the plan of action reports following the step by step methodology of RAY as specified by the Ministry of Housing and Poverty Alleviation, Government of India.

RCUES, Hyderabad would like thank the Director and all the staff of State Urban Development Agency (SUDA), Lucknow for the co-operation they provided during the project period. We would like to thank the Project Officers (PO's) and the staff of District Urban Development Agency (DUDA) of respective cities for their generosity while helping RCUES teams to collect data, conduct workshops and played a big role in the preparation of Plan of Action. We would also like to express our gratitude to the officials of respective Nagar Nigam's/ Nagar Palika Parishad's, Jal Sansthan and other agencies who co - operated for the successful preparation of Slum Free City Plan of Action.

RCUES, Hyderabad looks forward for implementation of the effective strategies by the nodal agencies and making Uttar Pradesh state free from slums.

CHAPTER 1 – INTRODUCTION

1.1 BACKGROUND

The Government of India in 2009 launched Rajiv Awas Yojana (RAY) with an aim to achieve the vision of a 'slum - free India' with inclusive and equitable cities in which every citizen has access to basic civic and social services and decent shelter. It aims to achieve this vision by encouraging States/Union Territories to tackle the problem of slums in a definitive manner, by a multi-pronged approach. It focuses on bringing all existing slums, notified or non-notified within the formal system and enabling them to avail of the same level of basic amenities as the rest of the town. It also seeks to tackle the shortages of urban land and housing that keeps shelter out of reach of the urban poor. The Rajiv Awas Yojana aims to provide support to enable States to redevelop all existing slums in a holistic and integrated way and to create new affordable housing stock. The Ministry of Housing and Urban Poverty Alleviation (MoHUPA) has instituted for this holistic RAY scheme.

Considering the importance of the scheme for achieving inclusive and sustainable development of the city, state and the nation, the Slum Free City Plan of Action for Kannauj city is prepared to provide a systematic and holistic approach to tackle with existing slums in the city and to prevent the formation of new slums in future.

1.2 OBJECTIVES OF SLUM FREE CITY PLAN OF ACTION

A Slum Free City Plan of Action (SFCPoA) is an important instrument for cities to attain the objectives of RAY. It is a citywide plan of action, which consists of two parts; a plan to bring about the improvement of existing slums through both planning and stakeholder participation of the existing dwellers and strategies for prevention of future slums. In doing so, the 'Slum Free City Plan of Action' takes into consideration the present status of slums, priorities of slum dwellers, the resources and capabilities of the city in improving the quality of life of the urban poor and the capacity of the urban poor to be partners in this development process.

The Objectives of Rajiv Awas Yojana (RAY):

- Bringing existing slums within the formal system and enabling them to avail of similar level of basic amenities as the rest of the town/city;
- Redressing the failures of the formal system that lie behind the creation of slums; and
- Tackling the shortages of urban land and housing that keep shelter out-of-reach of the urban poor and force them to resort to extra-legal solutions in a bid to retain their sources of livelihood.

1.3 PERSPECTIVE

The lack of housing and basic services at the required pace to meet the challenges of urbanization has resulted in the development of slums and squatter settlements with wider ramifications on the health, safety and well-being of the citizens. In 2001, there were 23.5 percent of households in urban areas which were living in slums. In 2011, it has come down to 17.4 percent. But there are still 13.74 million slum households and 68 million people living

in the slum areas (Census, 2011). As per the report of the Technical Group on Urban Housing Shortage (2012-17) constituted by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), there is a shortage of 18.78 million dwelling units in the country out of which nearly 96% belong to the Economically Weaker Sections (EWS) and Lower Income Group (LIG) households potentially living in slums. There are constraints and challenges both on the supply side and the demand side, which need intervention by the governments.

In context of Uttar Pradesh, though the state is considered as one of the less urbanized states of India, it has second largest urban population in the country. About 22% of the population lives in urban areas in Uttar Pradesh, which constitute more than 44 million. As per the statistics of committee on Slum Statistics/census, 2011, Government of India, about 10.8 million urban population of Uttar Pradesh is living in slums, which constitute about 24% in urban population.

In spite of various central and state government programmes implemented in the state the problem of urban poverty and slums is still prevailing on large scale. In order to resolve the problem through inclusive and in a holistic manner, the state government with the assistance of central government has adopted Rajiv Awas Yojana (RAY). The Urban Employment & Poverty Alleviation Programme Department, Govt. of Uttar Pradesh is the concerned department in the state for monitoring and implementing RAY.

1.4 SFCPoA METHODOLOGY IN KANNAUJ

For the preparation of Slum Free City Plan of Action, the following methodology is followed for Kannauj city.

- **Step-1:** Establishment of a slum free technical cell at the state nodal agency level for city for planning, documentation, capacity building and monitoring the POA through selection of professionals from various departments and disciplines.

- **Step-2:** Preparation of city and slum profiles involves collection of secondary information such as CARTOSAT II images and relevant slum information. Next preparation of base maps to an appropriate scale using GIS application. In addition, identification and inventory of all slum clusters along with inventory of all possible vacant lands in each zone and that could be used for slum redevelopment/ rehabilitation development purposes.

- **Step-3A:** Socio Economic Survey in slum areas: reputed NGO/CBOs were selected for conducting socio economic surveys and data validation. Identification of survey personnel from nearest slums with local knowledge and extensive training to be provided for survey personnel by the local organizations on survey formats as specified by MoHUPA.

- **Step-3B:** Preparation of GIS based maps involves mobilization of GIS team and training, acquiring Satellite images for the cities and creating geo - databases with required spatial layers such as roads, buildings, land use and capturing utilities. In addition, involves preparation of base maps, thematic maps and slum maps.

- **Step-4:** MIS & Data Entry involves collection of data of slum dwellers, compilation and collation of primary data, preparation of a robust Slum-wise, City and State Slum Survey Database and Baseline Reports. In addition, the MIS team is responsible for identifying data gaps validation, resend them to the concerned authorities and updating the database.

- **Step-5:** Ground Mapping involves survey personnel team to map the parcels, capture utilities and updating the revised slum maps.

- **Step-6:** Verification and Validation by Independent Agency on socio-economic, spatial data and base maps on a random basis.

- **Step-7:** MIS includes Integration of Slum MIS with GIS Maps to enable the preparation of GIS-enabled MIS maps for the preparation of meaningful Slum Development Plans and Slum-free City.

- **Step-8:** Data analysis and decision for Slum Redevelopment Plan based on models like PPP development, infrastructure provision only, community-based development through involvement of the community mobilization and dialogue for deciding the model to be adopted.

- **Step-9:** Micro level planning & organizing workshops with community stakeholders for prioritization of slums and the mode of development.

- **Step-10:** Plan Preparation- Prioritization and phasing of slums and works including line estimates for 1st year slums.

- **Step-11:** ULB Approval involves prioritization and phasing of slum rehabilitation models.

- **Step-12:** Preparation of Slum-free City Plan and DPR should include strategies for the prevention of future slums, including reservation of land and housing for the urban poor. The Plan should contain timeline of activities for achieving slum-free city, phasing information and financial estimates against each of the activities.

- **Step-13:** Obtaining approvals from ULB and other concerned authorities

- **Step-14:** Obtaining approval of SLSC/SLNA/MoHUPA

- **Step 15 & 16:** Tendering process, implementation of proposals and appointing of TPIMA team

- **Step 17:** Impact Assessment

- **Step-18:** Revisions and rectifications of the strategies, reforms.

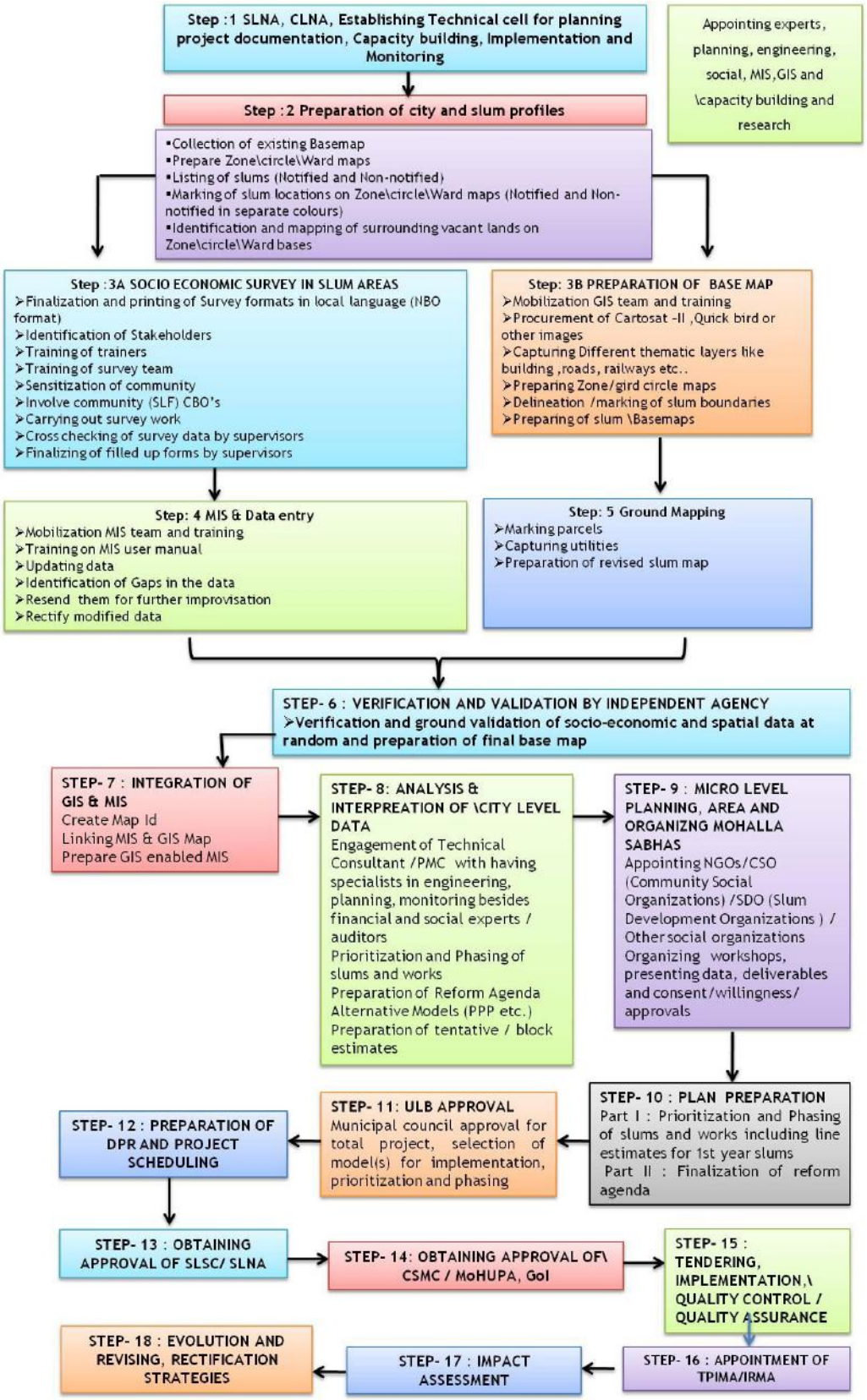


Chart 1-1 : SFCPoA Methodology for Kannauj City

1.5 SURVEYS, INVESTIGATIONS & CONSULTATIONS

1.5.1 Listing of Surveys and Timelines (Annexure)

State Urban Development Agency (SUDA) is the nodal agency to implement surveys for the scheme 'Rajiv Awas Yojana' in the State of Uttar Pradesh. As per the directions of Government of India, slum survey started in Uttar Pradesh from the year 2009. Initially the survey was taken up under USHA programme, which was having similar survey format of RAY. Various meetings were conducted by calling different para-statal agencies to discuss the required methodology for conducting surveys and initiate the steps for survey. Several discussions were held at length and depth about the conduction of surveys and to finalize a methodology. The following institutional methodology has been adopted for the state.

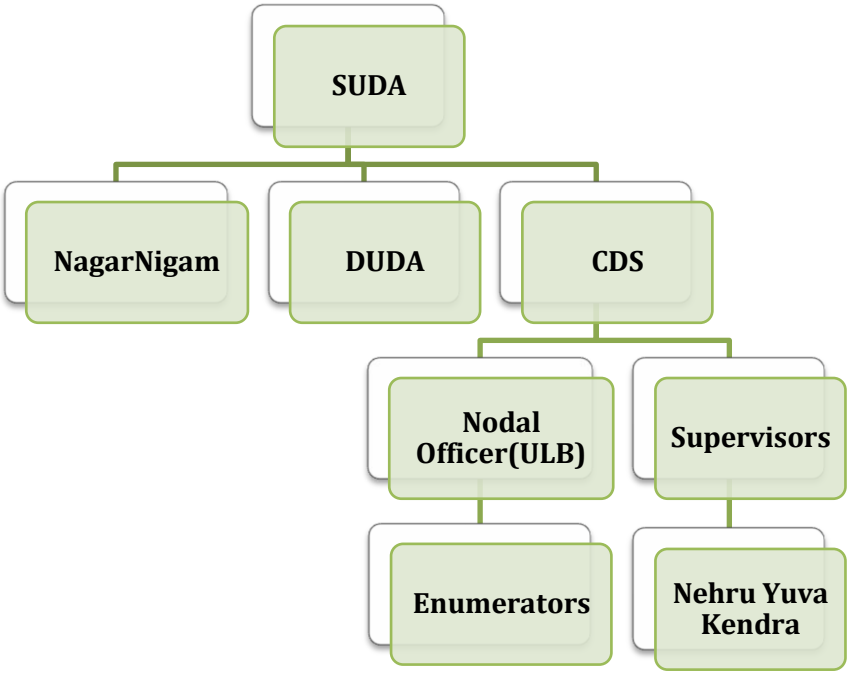


Chart 1-2 : Agencies & Stakeholders involved

1.5.2 Agencies (including procurement process) & Stakeholders involved

State Urban Development Agency (SUDA) as State level authority and District Urban Development Agency (DUDA) as city level authority have been the Nodal agencies to monitor the quantity and quality of surveys performed by individual cities. DUDA is headed by Project Officer (PO) who is in charge for one city, a nodal officer for a ULB and number of supervisors for quality and quantity check upon the enumerators who have done the surveys. Member of Community Development Societies (CDS), Self Help Groups constituted under SJSRY and other schemes have been involved in conducting surveys and a minimum qualification of SSC was taken as Enumerators eligibility to collect information and to fill up the survey forms.

a. City level Technical Cell

Although the policy for appointing state and city level cell has been initiated only state level cell comprises of RAY specialists in State Urban Development Agency (SUDA), Head office, Lucknow. District Urban Development Agency (city level RAY nodal agency) how ever is finding it tough to identify and appoint RAY specialists. The necessary support required is been hired by available qualified consultants properly monitored by the state level technical cell.

b. GIS mapping

RCUES, Hyderabad has prepared/revised the base maps of respective cities through satellite imaginary and maps obtained from Uttar Pradesh State Remote Sensing Centre and respective ULBs. RCUES, Hyderabad with the help of respective ULB staff, further identified, mapped the slum boundaries in the respective cities visiting each slum with Global Positioning Technologies (GPS) device. The preparation of city and slum mapping has been done by Urban Planning division in-house GIS staff of RCUES, Hyderabad.

c. MIS

SUDA has initiated the work of MIS to UPTRON, which in turn has outsourced to Infinite systems, performed the operations of MIS. Data Entry has been done at ULB level and ported the data to the main server at CGG. A routine checkup of data has been performed and uploaded in a web tool specially prepared for RAY project. Every ULB has given a USER Name & PASSWORD to access their data from the Central Server. The front and back end of the web tool is Postgres and Java. Once the data is frozen and migrated to centralized data base at CGG, any editing of data will be done by the Project Director, DUDA in case of cities and by Commissioners in case of City Corporations.

d. Stakeholder Consultation

The various stakeholders involved along with SUDA in the process of RAY comprised of District magistrate, DUDA, Officials of Nagar Palika/Parishad, RCUES - Hyderabad, UP Remote Sensing Center, elected people representatives, private agencies, NHG's, NHC's, CDS ,NGO's, slum inhabitants, media and other agencies, individuals working in the local areas.

The list of slums considered for preparation of Slum Free City Plan of Action is confirmed with the DUDA, Nagar Nigam, ward corporations, NGOs at the time of carrying out primary surveys and later during consultative stakeholder workshop.

1.6 STAKEHOLDERS CONSULTATIVE WORKSHOP / MEETING

As part of Plan preparation, a consultative stakeholder workshop of Kannauj city is held on 4th October, 2013 at Meeting Hall, Vikas Bhavan, Kannauj from 11 AM. The purpose of the meeting was to discuss about the draft Plan of Action prepared under Rajiv Awas Yojana, significance of the programme, review upon the gap assessment analysis for the city, receiving suggestions from stakeholders.

Shri. Sunil Kumar Srivasthav, Project Officer, DUDA, Kannauj along with DUDA staff coordinated the consultative stakeholder meeting.

The meeting was chaired by Smt. Saritha Patak, Chairman, Kannauj Nagar Palika Parishad. S.K. Tiwari, Executive Officer, Nagar Palika Parishad, Kannauj, Shri M.Rama Rao, Head, Urban Planning Divison along with the Shri. Sajith, Shri. Durga Prasad, Urban Planners represented from Regional Centre for Urban and Environmental Studies, Hyderabad. The key stakeholders who participated in the workshop were officials from Kannauj Nagar Palika Parishad, District Development Authority, ward corporators, local NGOs, CDS, various other public representatives, few slum dwellers and few residents from the city.

Shri. Sunil Kumar Srivasthav, Project Officer, DUDA, Kannauj welcomed all the stakeholders to the consultative workshop and explained the purpose of conducting the workshop. He detailed out the significance of Rajiv Awas Yojana scheme to upgrade the housing and infrastructure condition of slums in the city. He detailed out the process carried for identifying slum pockets in the city and also briefed various parameters considered in RAY primary surveys that has been carried out in city for all the slums in February, 2013. He explained the importance of Slum Free City Plan of Action and for approval of the same for sanction of financial assistance from Central and State Governments for preparation of Detailed Project Report (DPR) for each and every slum in the city. He then introduced Shri Rama Rao and the RCUES team to the stakeholders.

Shri. M. Rama Rao, RCUES in the opening remarks briefed the significance of preparation of Slum Free City Plan of Action (SFCPoA) under Rajiv Awas Yojana scheme. He then explained the major findings of draft Slum Free City Plan of Action prepared for Kannauj City. He explained the step by step methodology followed for preparation of plan. He detailed out the spatial distribution of slums in ward wise in the city. He explained the existing situation of slums in the city with respect to physical characteristics of the city, demography, socio-economic profile, housing profile, status of physical and social infrastructure facilities etc. He visualized the GIS based slum mapping done for each and every slum of the city. He explained the existing condition of slums in the city w.r.to nine major elements i.e., housing, water supply, sanitation, drainage, solid waste management, roads, education, health and

community facilities through statistical analysis and showing photographs of Kannauj slums. He detailed out the proposals, year wise phasing of slums, mode of development proposed for each and every slum. He visualized the sample layout designed for Takedarwali Galli and Shaikpura slums proposed for development under In-situ mode. He detailed out the cost estimates made for provision of housing and infrastructure in the slums. He highlighted various challenges that are faced and probable to occur in preparation and implementation of Plan of Action like slum boundary identification, community consensus, approval of plan of Action, preparation of DPR etc. In this line, he highlighted the need for active community participation. He asserted that any project or plan can be successful only when people own the plan and believe that it is their plan. He expressed his appreciation for State Urban Development Agency (SUDA) and District Urban Development Agency (DUDA) for their cooperation throughout the project.

Smt. Saritha Tripati, Chairman, Kannauj Nagar Palika Parishad appreciated the initiative to conduct the stakeholder meeting on a scheme aimed at providing public services for urban poor. She expressed the wish for well execution of the project in the later phases and makes Kannauj a slum free city.

Shri.Sunil Kumar Srivasthav, PO, DUDA Kannauj invited the ward councilors, slum dwellers, citizens of Kannauj, CDS etc attended the workshop for their suggestions and quires.

Suggestions from People attended the Meeting:

1. Shri. Shyam Tiwari, ward councilor, ward no.11 raised query regarding "Multiple Households". He asked "What is the provision made in the scheme for allocation of houses for slum dwellers residing in a joint family (or) residing in a single dwelling unit in a slum?"

   Shri. Rama Rao, RCUES in respect to the above query said "If the family is having a son more than 21 yrs of age and if he hold valid documentation like Ration card, voter card etc, on the same residing address then a separate house will be allocated for him."

2. Shri. Rajesh Diwakar, said "the ward is having a cluster of few dwelling units with poor housing condition and insanitary facilities" and asked for inclusion of the places as slum settlement in the list.

   Shri. Sunil Kumar Srivasthav, PO, DUDA in respect to the above query assured for visiting the place soon along with engineer of Nagar Palika Parishad and said "if the place really depicts the situation of slum, then it will be definitely enrolled in the list and RAY survey will be carried out".

3. Shri. Pawan Kumar Awasthi, ward councilor said "the city is having many houses in bad condition with poor people living in" and suggested to provide pucca houses even to them.

   Shri. Sunil Kumar Srivasthav, PO, DUDA in respect to the above query made clear that the RAY scheme is intended for only slum settlements in the city and it doesn't deals with poor income houses situated in developed parts of the city". He assured for discussing the aspect with higher authorities in case of any provision in the scheme.

   Shri. Rama Rao, RCUES opined "the poor households living in non slum areas can be allocated houses in the developing layouts, but community consensus has to be considered before doing so". He also said "provision of rental housing in every city for urban poor at affordable price will be a major step to stall further creation of new slums."


4. Smt. Saritha Patak, Chairman, Kannauj Nagar Palika Prishad raised a query " the slum dwellers own dwelling units with different built areas, but while allocating houses all the dwellers are allocating flats with uniform plot area" and she opined that it may leads to problem while executing the project in later stages.

Shri. Rama Rao, RCUES said "for majority of slums, up-gradation mode of development will be followed where only the houses with poor condition will be detached and new housing will be provided. The entire layout development i.e., In-situ development will be made only to slums which are in worse condition at all aspects of housing and infrastructure. The slums proposed for In-situ mode of development will be usually very less in number and in these slums community approving plays a major role. Through community capacity building measures the issues like uniformity of build up areas can be solved."

5. Shri. Mohd.Hasan, said "some of the slum dwellers are selling the allocated flats to others" is there any provision in RAY to stop this?

   Shri. Rama Rao, RCUES said "the residents who have possession certificate will only be allotted with houses and the house will be allotted on the name of female member of the family". He also said "the owner of the allotted flat has no right to sell or for giving rent for a minimum period of 10 yrs."

6. Shri. Puneet, city resident said "the slum wise data should be made available to the public in DUDA and Nagar Nigam for their reference".

Shri. Sunil Kumar Srivasthav, PO, DUDA, Kannauj thanked the Chairman, Kannauj Nagar Palika Parishad officials, RCUES staff, ward councilors, CDS, slum dwellers and people of the city for attending the workshop and making it successful.

Please refer the Annexure for the list of participants attended for the Stakeholder meeting / workshop

CHAPTER 2 –CITY PROFILE & INSTITUTIONAL FRAMEWORK

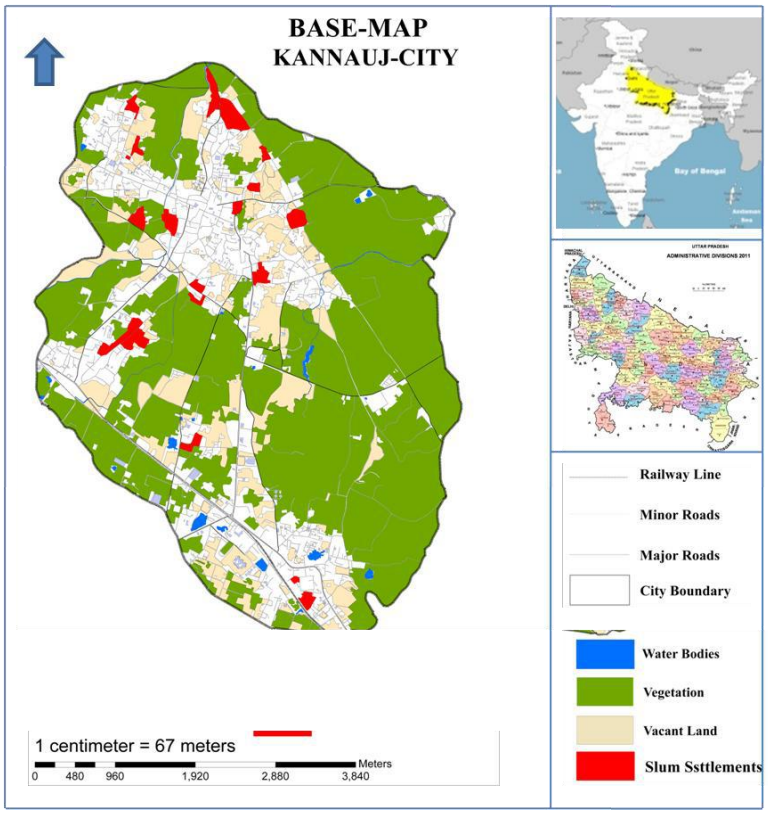
2.1 INTRODUCTION

The state of Uttar Pradesh is one of the prominent states in the North eastern region of India with Lucknow as its capital, falling under 'A' category[1], while Kannauj is classified as 'C' category[1] city. Kannauj Municipal Board (also called as Nagar palika parishad), is one of the municipalities in the state. City municipal area is divided into wards/zones and a member (Councilor) from each ward is elected to form the Municipal Council. The council is lead by chairperson and Municipal board.

2.2 PHYSICAL CHARACTERISTICS OF THE CITY

2.2.1 Location

Being historical and traditional important city, Kannauj forms an important regional urban center in Kannauj district of Uttar Pradesh. It is a Class I town, municipality and administrative head quarters of Kannauj District, falls under Kanpur division of Uttar Pradesh. The city of Kannauj is situated on the upper side at a distance of 3 km to river Ganga. City spatial extension falls at 27°07' N latitude and 79°92' E longitude. District is bounded by the districts of Farrukhabad to the north, Hardoi to the northeast, Kanpur Nagar to the east, Kanpur Dehat to the southeast, Auraiya to the south, Etawah to the southwest, and Mainpuri to the west.



Picture 2-1: Location of Kannauj town in Uttar Pradesh State

[1] According to India report 2008, Indian cities are classified into A (A1,A2,..), B and C based on grant for HRA and CCA on

2.2.2 Topography

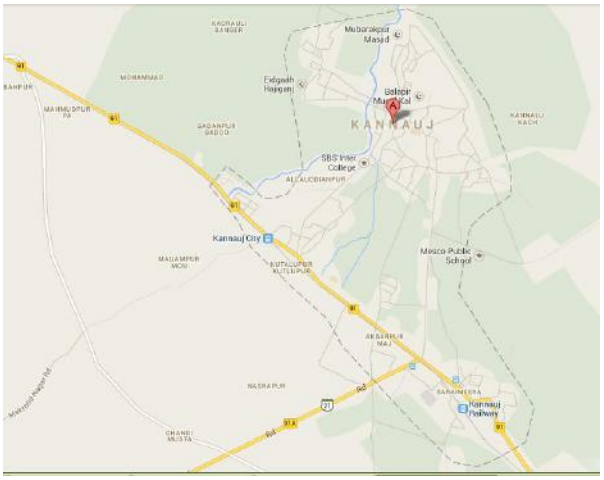
Kannauj town is part of Gangetic plain. Ganga is the main river of the passing at the North East border of the district, Kali and Ishan Rivers are in other parts of the District. Average rain fall of the District is approximately 80 cm. The climate of the district is characterized by a hot dry summer and a pleasant cold season.

2.2.3 Climate

The climate of Kannauj is extreme and tropical in nature with a varying temperature dropping to 3-5°C in winter and rises to 44-46°C in summer. Rainy season duration is June to September; winter starts in November and lasts till February and the annual rainfall recorded is 810 mm (Town directory, Census 2001).

2.2.4 Regional Setting & Connectivity

Kannauj is well connected with other parts of the state and country by rail and road networks. National highway (NH) 91 is passing through the city. The linkage provided is NH-91 links Kannauj to Bewar, Etah, Aligarh and Ghaziabad, outskirts of New Delhi on one side and Kanpur on other side. The city lies on train line between Lucknow - Delhi and has direct connections with cities like Lucknow, Kanpur, Shikohabad, Aligarh, Ghaziabad, Hatras, Mathura and Delhi etc. The nearest airport is in Kanpur at a distance of 80 km. The other nearest domestic airports are at Lucknow (124km) and Kannauj (281km). The international airport is at New Delhi i.e. 350 km from Kannauj.



Picture 2-2: Regional linkage of Kannauj

2.2.5 History

Kannauj has been ruled by Mauryas during 300-50 B.C and later by Guptas till 6th century. The city rose to prominence during the reign of Harshavardhana who is counted among the most illustrious rulers in Idna. It was in the mid 7th century that Kannauj was named the capital city of Harshavardhana. The then kingdom of Harshavardhana included the entire region between the rivers Sutlej and Narmada and eastern Bengal. After Harshvardhana, it has been fell into hands of many dynasties and finally into Mughals kingdom in 12th century. From then it is associated with perfumes (natural attars) and became perfume hub. Kannauj became part of united province which was formulated by British during their rule. After independence united province has been renamed into Uttar Pradesh and Kannauj is part of it. Till September 1997 Kannauj town was part of Farrukhabad district and later Kannauj district was formulated with Kannauj town as its administrative headquarters.

2.3 SOCIAL AND DEMOGRAPHIC PROFILE

2.3.1 City Population

As per Census 2011, the population of Kannauj town is 84,862 with a decadal growth rate of 18.31 per cent. The population in 2001 was 71,727 where as the male and female population are 37,951 and 33,776. Child population (0-6 years) in city are 11,410 were 6,072 are boys and 5,338 are girls. The child forms 16% of city population. The town has witnessed a constant increase in population from 1961 to 2011 with a varying decadal growth rate. The population increased by nearly three folds over the last six decades with an increase in population from 24,646 in 1961 to 84,862 by 2011. The growth rate of the population can be seen from the table 2-1.

Table 2-1 : Decadal growth trend of Kannauj city population

Census Year	Population	Decadal Population Increase (in No.)	Decadal Population growth rate (in Percentage)
1961	24646	1508	6.52
1971	28187	3541	14.37
1981	41016	12829	45.51
1991	58932	17916	43.68
2001	71727	12789	21.71
2011	84862	13135	18.31

Source: Census of India

2.3.2 Slum Population

As per 2001 census, slum populations in the city are 39,666 residing in 5,755 households constituting 55% to the city population. The male and female populations are 21,025 and 18,641. The average slum household size is 6.8 which is equal city household size. A preliminary annexure I verification survey has been carried out in January, 2013 on the basis of NBO annexure format (RAY guidelines). As per the survey slum population in the city are 11,274 and households are 1,920 residing in 17 slums. The decrease in slum population is indicating the development occurred in town over last 13 years.

2.3.3 Population Density

The area under Kannauj Nagar Palika Parishad (KNP) jurisdiction is 14.9 sq km. Overall population density of the town is 5695 persons per sq km (i.e. 57 persons/ha). The municipal area has been extended twice from 10.36 to 12.46 sq km (1971-81) and 12.46 to 14.90 sq km (1981-1991). Change in the density of Kannauj over the last two decades is shown in Table 2-2. Density increased by 23 units (Pop/Ha) from 1981 to 2011.

Table 2-2 : Population Density of Kannauj

Year	Population	Area(sq. km)	Density (pop/sq. km)	Density (pop/Ha)
1981	41016	12.46	3291	33
1991	58932	14.90	3955	39
2001	71727	14.90	4813	48
2011	84862	14.90	5695	57

Source: Census, 2011 and CDP-Kannauj

2.3.4 Sex Ratio & Literacy

As per the census 2001, the current sex ratio (female population per 1000 male) in the town is 890, which is lower than the state urban average of 912 and national urban average of 940. However sex ratio has been increased significantly from 1981 to 2001. Child sex ratio of girls for 1000 boys is 879. Average Literacy rate of people under Nagar Palika Parishad area is 68% (Census-2001), it is lower than state urban average of 75.14% and the national average of 84.98%. The number of literates is 41,003 of which 23,724 are male and 17,279 are female.

Table 2-3 : Physical & Demographic profile of Kannauj city

PARAMETER	UNIT	VALUES
Municipal Area	Ha.	14.9
Municipal wards	No.	25
Population (2011 census)	No.	84,862
Households (2011 census)	No.	14,762
Average Household size	No.	6
Literates	No.	41,003
Literacy rate	%	68
Sex Ratio	No.	890
Slum Settlements	No.	17
Slum area	Ha	0.30
Percentage of slum area to total area	%	2
Slum Population	No.	11,274
Slum Households	No.	1,920
Average Household size	No.	6

Source: Census–2001, NBO Annexure-I survey.

2.3.5 Population Projection

Kannauj has a diverse growth character, complemented by the natural growth and migration from the surrounding country side. The average growth rate of the last three decades i.e. 1991-2011 is 28%. However the overall town population doesn't exceed one lakh, but the growth rate is towering which indicates potentials of Kannauj. So, population projections are essential in order to estimate the basic service requirements of the people. It also assists in plan preparation process, resource accumulation and revenue realization, which is directly proportional to population growth.

The data used for these projections are the summaries of the 1991, 2001 and 2011 census. The average growth rate of last three decades is considered for population projections because of the consecutive variability of decadal growth rate and the value here is 28 percent. The projections are shown in *Table 2-4*:

Table 2-4 : Population projections for Kannauj city

Year	2011	2016	2021	2026	2031
Population	84,862	96,743	1,08,623	1,23,831	1,39,038

Source: Based on Census 1991, 2001 & 2011

2.4 ECONOMIC PROFILE

2.4.1 City Economic Base

Kannauj is basically a commercial and industrial town. The major part of its industrial activity is in the form of small-scale and house-hold industries. The small scale Perfume and house hold Aggarbatti industries are the income sources for the town dwellers. Market in the town is the trade centre and generates profitable income. Thus, commercial and industrial sectors are playing major role in Economic enhancement of the town.

The working population percentage of the city in 2001 is 28.50 (20,447) and the same in 1991 was 27.02, indicating the decline in non working population. On the basis of 1991 and 2001 data, the growth rate of working population (1.48%) is obtained and the same has been used for projections. Working population is projected for the next two decades i.e. 2011 to 2031 (table2-5).

Table 2-5 : Working population projection in Kannauj

S. No	Year	Total population	Total Working Population	Percentage
1	1991	58,932	15923	27.02
2	2001	71,727	20447	28.50
3	2011	84,862	24822*	29.25*
4	2016*	96,743*	29023*	30.00*
5	2021*	1,08,623*	33402*	30.75*
6	2026*	1,23,831*	39007*	31.50*
7	2031*	1,39,038*	44840*	32.25*

**** Projections***

Source: Census 1991 & 2001

2.5 HOUSING PROFILE

2.5.1 Housing Stock

Areas adjacent to the Market centre and old settlements exhibit dense development due to cluster housing. This is because of availability of all services, cultural attractions and work places. This area is under development pressure due to lack of organized growth. The peripheral areas are becoming more popular among the people as they provide more organized development pattern with infrastructure being relatively in better conditions.

According to 2011 census, the total households (HHs) in the city are 14,762 comprising of 84,862 population and the average Household size is 5.7. The HHs in 2001 are 10,455 with a population of 71,727 and household size of 6.8. The increase in number of HHs is directly causative of reduction in household size.

2.5.2 Housing Shortage

Housing, one of the basic services for the common man has given top priority in RAY plan preparation process. As indicated by the last three decades population growth rate, it is seen that there is a growth rate of 44% from 1981-1991 and it slides down to 22% (1991-2001) and declined to 18% (2001-2011), but the housing scenario is in different line resulting gap.

Estimated Housing shortage in 2011 is 683 on the basis of household size 6 (5.5) including 2% as dilapidation rate. Considering the same average household size till 2021 and 5 from 2021 to 2031 and dilapidation rate the additional units' required were calculated. The housing shortage by 2031 will be 13,279 units in particular with households of 2011.

Table 2-6 : Projection of Housing & Housing shortage in Kannauj city

Year	2011	2016	2021	2031
Projected Population	84862	96,743	1,08,623	1,39,038
Considered HH size*	6(5.7)	6(5.5)	6(5.5)	6(5)
Households (Projected Population / HH size)	14,762	17,590	19,750	27,808
Additional HH's required (Current HH's – 2011 HH's)	-----	2,828	4,988	13,046
Total Additional HH 's units required including shortage of 2011	683	3,511	5,671	13,729

** Considered HH size is obtained from Master plan 2011-Kannauj*

2.5.3 Economic Weaker Section (EWS) / Low Income Group (LIG) Housing

Working towards slum free Kannauj city, there is needed to build up EWS and LIG housing stock. EWS housing are meant for people whose annual income is below Rs 1,00,000 while LIG housing are meant for people whose annual income is between Rs 1,00,001 – 2,00,000.

Most BPL/EWS and LIG households in cities live in informal settlements/slums on encroached lands. There is no authoritative data stating the numbers of poor families without adequate housing in cities. Census of India provides estimates of number of poor in each city and they also project future population growth for cities using an urban growth rate. City Master Plan and other plans/studies make estimates on housing demand on the basis of Census information. Considering the past census data and development/master plan of the city it is assumed that 18% of the Kannauj city households belongs to either EWS or LIG population.

In Kannauj, 13% of the city population lives in slums which account 13% of the total city households. Assuming that 5% of the EWS and LIG households live in other parts of the city, the EWS/LIG housing projections are calculated for the next 15 years.

Table 2-7: Future Housing projection pertaining to EWS / LIG

Year	2011	2016	2021	2026
EWS/LIG Housing	738	880	988	1390

Note: The EWS and LIG Housing projections for the city were made excluding the slum housing stock

2.6 INFRASTRUCTURE

2.6.1 Water Supply

Jal Sansthan is responsible for the operation and maintenance (O&M) of water supply system and wastewater collection (sewerage) system.

The source of water supply to the town is both surface and underground water. The river Ganga passing through the district is the source of surface water. However, surface water supplied is limited; Kannauj is still depending upon the underground sources to a major extent in order meet the needs of domestic, Irrigation and also for industrial purpose. Underground sources are utilized through 33 tube wells and 711 hand pumps i.e. one hand pump is serving 15 households. There are 14 over head tanks (OHT) with 8,900 kilo liter capacities. The water drawn from both the sources is treated and stored in these tanks and finally supplied to the consumers daily. Number of individual tap connections existing in the town are 12,541 (domestic, commercial, industrial, etc) as of the year 2013. Total demand has been estimated as 15.69 MLD, however the supply is more than the demand i.e. 21.62 MLD. Quality of underground water is soft and free from pollution.

2.6.2 Sewerage and Drainage

Open sewer drain network collects the waste water and sent them to Sewerage Treatment Plants (STP) for treatment. The total length of the drains in Kannauj is 130 km and 95% of the city is covered. There are no separate drains for storm water, creating pressure on existing sewer network during rainy season.

2.6.3 Solid Waste Management

The waste generated from the city includes household waste, commercial waste, clinical waste and industrial waste. About 20 MT of solid waste is generated every day in the town, which comes out to be about 350 grams per capita per day. Domestic waste is the major source of waste generation in the city. The households, shops do not store the waste at source nor do they segregate the waste as recyclable and non-recyclable waste. As per the Nagar Palika, the entire waste generated is collected (20 MT) and disposed off. Municipal staff is responsible for the collection of waste in 12 wards and 13 wards had given to contractors in order to keep those wards clean and hygiene.

2.6.4 Road network

National Highway-91 passing through the city is providing good connectivity to other districts of Uttar Pradesh. City is having intra road network of which 58 km is pucca and 7 km is kutcha (2001 census town directory) enabling people to commute within the city.

Roads are challenged with appropriate signage and poor maintenance and the condition become worse particularly in rainy season. The road density is also poor when compared with population i.e. 808 meters for every 1000 people (> 1 km). An immediate attention is required in order to increase the pucca road network and proper maintenance for existing network.

2.6.5 Electrification

According to the 2001 Census the total numbers of connections are 6,972. Out of total connections the domestic, commercial, industrial and others connections are 4,937 (70%), 978 (15%), 147 (2%) and 910 (13%) respectively. It is estimate that 90% of the households are electrified and the households which are not having connections are majorly found in slums.

2.6.6 Education

Kannauj is having enough basic education (up to 10+2) facilities. There are one polytechnic, 6 secondary, 6 senior secondary, 17 middle and 35 primary schools (2001 census). The availability of Higher education is limited to one Arts college in the town. The nearest Engineering and Medical Colleges are in Kanpur at 81 km distance. A new medical college along with associated hospital has been formulated in Kannauj in 2012.

2.6.7 Health

Along with District hospital, there are 3 private hospitals with 38 beds; one Dispensary, one health centre and one female welfare centre are available in Kannauj. Along with these facilities the private clinics and nursing homes are also active in providing medical service to the people of town and district.

2.6.8 Other facilities

As the town is administrative headquarter of Kannauj district, the public services like Police station, fire station, postal and telegraph services, Banking facilities, Agriculture (1) and Non Agriculture credit societies (2), Parks & Stadiums (1), Cinema halls (3), Auditorium, etc are available. The fire station helps in handling the fire accidents in the city and its surroundings. There are 10 (Census 2001) Government and private banks in the town in order to facilitate financial transactions.

2.7 KANNAUJ INSTITUTIONAL SETUP

Kannauj Municipal area of 14.9 sq. km is governed by the Nagar Palika Parishad of Kannauj. All the civic facilities have to be provided by the Municipal board as per the provision of 74th constitutional amendment act, 1992. Municipal commissioner heads the Municipality who is a state government officer. The elected representatives formulate a governing body which is headed by chairperson. Both play the major role in delivering the services to the people and development of the city. At present the governing body encompass of 25 councilors led by mayor.

Public works department is responsible for the constructions and maintenances of road infrastructure in the city. Uttar Pradesh power Supply Corporation provides the electricity to the city. Law and order of the city is controlled by the city police force as per the direction of Superintendent of Police (SP).

Along with Nagar Palika the District Urban Development Authority (DUDA) plays Key role in Slum development. DUDA works under the State Urban Development Authority (SUDA), apex authority for development and poverty eradication in urban areas of Uttar Pradesh. DUDA is responsible for identifying beneficiaries, generally BPL population and providing them benefits of government programmes like allotment of houses constructed under Kanshiram Awas Yojana, IHSDP, financial assistance in constructing individual/community toilets, approving loans (credits) and creating awareness. The organizational structure of DUDA is as follows:

2.8 REVIEW OF SLUM DEVELOPMENT PROGRAMMES

IHSDP:

Integrated Housing and Slum Development Programme is formulated by combining the existing schemes of VAMBAY (Valmiki Ambedkar Awas Yojana) and NSDP (The National Slum Development Program). The basic objective of the scheme is to strive for holistic slum development with a healthy and enabling urban environment by providing adequate shelter and basic infrastructure facilities to the slum dwellers of the identified urban areas. The scheme will apply to all cities/towns, excepting cities/towns covered under JNNURM. The target group under the scheme is slum dwellers from all sections of the community through a cluster approach. The components for assistance under the scheme will include slum improvement / up gradation / relocation of houses and infrastructural facilities like water supply and sewerage. Cost of land for such projects will not be provided under the programme and has to be borne by the State Government.

IHSDP is the major programme, providing housing stock to the slum dwellers in the recent past i.e. from 2006. Five projects were started under this scheme. Number of Dwelling Units (DU's) approved are 1872 with approved cost of 44.38 Crores. The amount received by state level nodal agency from state is 22.67 Crore, the same has been released to DUDA (implementing agency) and the amount utilized by the agency is 9.64 crores. As of August, 2011 a total of 672 DU's construction work is in progress and 1200 units work is not yet started. None of DU's construction work is completed. Construction and Design Service (C&DS), Uttar Pradesh is the implementing agency of all five project in Kannauj. The status of the scheme as on August, 2011 has been depicted in the Table 2-8.

Table 2-8 : Status of IHSDP of Kannauj town (Amount in Crores)

S. No	Project name	Total No. of DU's Approved	Approved date	Project cost	Amount received by SLNA	Amount utilized by Implement-ing agency	DU's in progress	DU's not yet started
1	Chibramau	648	3/2/09	15.91	7.13	5.02	324	324
2	Tirwa	528	3/2/09	11.73	5.18	0	0	528
3	Tirva	312	10/12/2008	7.37	3.63	0	0	312
4	Chibramau	240	10/12/2008	5.90	4.16	2.91	240	0
5	Saurikha	144	10/12/2008	3.47	2.57	1.71	108	36
		1872		44.38	22.67	9.64	672	1200

Source: Status report of IHSDP scheme, SUDA, Lucknow, Uttar Pradesh

The Construction & Design Services (C&DS) is a commercial wing of the UP Jal Nigam, it was set up in 1989 to diversify the activities of the Parent Organization (UP Jal Nigam) in the fields of Consultancy Services, Project Management, Land Development & Construction of buildings of all types and magnitude, Interior Designing and Furnishing, Landscaping, Fire Protection, Air Conditioning etc., in addition to our traditional fields of Environmental Engineering viz., Water supply Sewerage including Sewage Treatment and Effluent Treatment for Industrial Units, River Pollution Abatement etc.

C&DS is the implementing agency of five projects in Kannauj. So far, an amount of 22.67 Crore has been released by SUDA & DUDA, as of August 2011, amount utilized by C&DS is 9.64 crore to carry out construction activity. Construction of 672 DU's out of 1872 DU's is in progress and the remaining 1200 DU's are yet to be started.

DPR: A pilot Detailed Project Report has been prepared for Shekhana and Bajariya Shekahna slum cluster under Rajiv Awas Yojana. As per DPR, population in this cluster is 4025 which are residing in 643 households with an average household size of 6.25. Slum settlement spread in an area 0.14 sq. km. Majority of the population in the slum belongs to Muslim community with 80.4% followed by Balmiki and Saini. As per DPR; 75% population are literates, 85.6% dwellers are working as Casual/regular labor in the surrounding agriculture fields and women involved in Zari work & Bidi making.

The pucca households in the settlement are 479, Semi-pucca are 25 and the rest 139 are Katcha in nature. A total of 164 HH's are identified for In-situ mode of development. The total project cost is 17.52 crore, in which Housing is 7.61 crore, Infrastructure is 5.30 crore and O&M and the other costs accounts remaining 4.61 crore. The approved fund allocation pattern is 6.57 crore by Central and 10.95 crore by state government.

2.9 MUNICIPAL FINANCE STATUS OF KANNAUJ NAGAR PARISHAD

Resource mobilization and financial stability is of paramount importance for any city's health and plays a vital role in the development. The source of revenue for Kannauj Municipal board is primarily categorized into tax and non tax based. The tax based revenues mainly includes revenues collected from property tax, advertisement, professional and terminal taxes. While the non tax based revenue comprises of rentals from municipal properties, service user charges, and penalties. Transfers from state government generally include shared taxes,

general and specific purpose grants and grants recommended by State Finance Commissions. The following *Table 2-9* presents a comparison of the income and expenditure of Kannauj for the years 2008-2012.

Table 2-9 : Income and Expenditure for the Years 2008 to 2012

S. No.	Particulars	Years (Rs. in Lakhs)				
		2008-09	2009-10	2010-11	2011-12	20012-13
1	Taxes	72.19	96.79	84.5	91.01	126.84
2	Non-Taxes	44.87	46.37	69.16	57.35	40.28
3	Assigned Revenues	0	0	0	0	0
4	Grants (Plans & Non Plans)	389.77	385.86	419.00	533.00	480.01
5	Others	23.28	23.28	58.52	35.93	113
	TOTAL	**530.11**	**552.3**	**631.18**	**717.29**	**760.13**
1	Establishment	298.42	341.47	419.21	453.03	299.48
2	O&M Expenditure	0	0	0	0	0
3	Capital Expenditure	0	0	0	0	0
4	Others	286.13	197.98	223.29	166.18	76.01
	TOTAL	**584.55**	**539.45**	**642.5**	**619.21**	**375.49**
	Total Surplus/ Deficit	**-54.44**	**12.85**	**-11.32**	**98.08**	**384.64**

Source: Nagar palika parishad, Kannauj

From the above table, it was found that there is a steady increase in the income sources of Kannauj in terms of taxes and grants from 2008 to 2013. An increase of 230.02 lakhs (2008-09 to 2012-13) of income sources is recorded. Budget surplus is observed in the last five consecutive years referring that income generated is not utilized to the extent particularly in 2012-13 where the surplus is 384.64 lakhs.

2.9.1 Allocation to Urban poor:

For the last Five years (2008-2012) Kannauj Nagar Palika Parishad spent an amount of 637.80 lakhs for the development activities of town. In this regard, 226.81 lakhs has been spent on development of slums in form of establishing road, water supply, sewerage networks and etc. Year wise details are incorporated in *Table 2-10*.

Table 2-10 : Year wise allocation for urban poor

S. No	Year	Amount spent on development activities	Amount spent for slum development	Percentage (%)
1	2008-09	237.98	122.86	51.62
2	2009-10	224.31	47.26	21.06
3	2010-11	9.66	2.65	27.43
4	2011-12	93.42	14.34	15.35
5	2012-13	72.43	39.70	54.81
Total		**637.80**	**226.81**	**35.56**

CHAPTER 3 – INDICATIVE ANALYSIS-EXISTING CONDITION OF SLUMS

3.1 DIAGNOSTIC ASSESSMENT OF SLUMS

The living conditions in slums represent the worst of urban poverty. Individuals and communities living in slums face serious challenges in their efforts to survive. Every slum is different in its origin, location, size and demographic characteristics. All characteristics are not common for all slums in the city. It may differ due to various reasons such as its appearance, economic condition, overcrowding of buildings, tenements, population, health and sanitary conditions, morality, way of life, standard of living, isolation of other residential communities etc.

For assessing the current situation of slums, appropriate indicators are required to understand the depth of problems. These indicators are derived from RAY guidelines wherein a detailed household / livelihood survey was conducted to identify the slums which are characterized by poor quality of housing and poor infrastructure. The following sections provide insights into the real picture of slums.

With increase in population of the city, housing needs grew, which could not be met by formal housing market. Migrant population, which could not avail the facilities of suitable housing and lack of monetary support were forced to satisfy their needs by occupying both private and public vacant lands and resulted in formation of slums and more number of squatter settlements.

Kannauj city has a total of 17 slums, where all are non-notified. Out of 17 slums, 12 were built on land belongs to private ownership and 3 slums were situated on land belongs to Local body and remaining 2 slums belongs to State government. The total population living in slums is 11274, which accounts 12% of the city population (as per census 2011). Of the total 17 slums in the city, 9 slums have existed for more than 75 years. Considering the physical location of the slums, 12 slums are located on non-hazardous / non-objectionable sites, 4 slums are located near major nallahs, and 1 slum is placed along railway line. All the slums are located far distinct to hazardous locations or activities making all slums as non-hazardous. Most of the slum settlements are concentrated around the core area of the city, along the highways and around other dominant location/land use forming larger clusters.

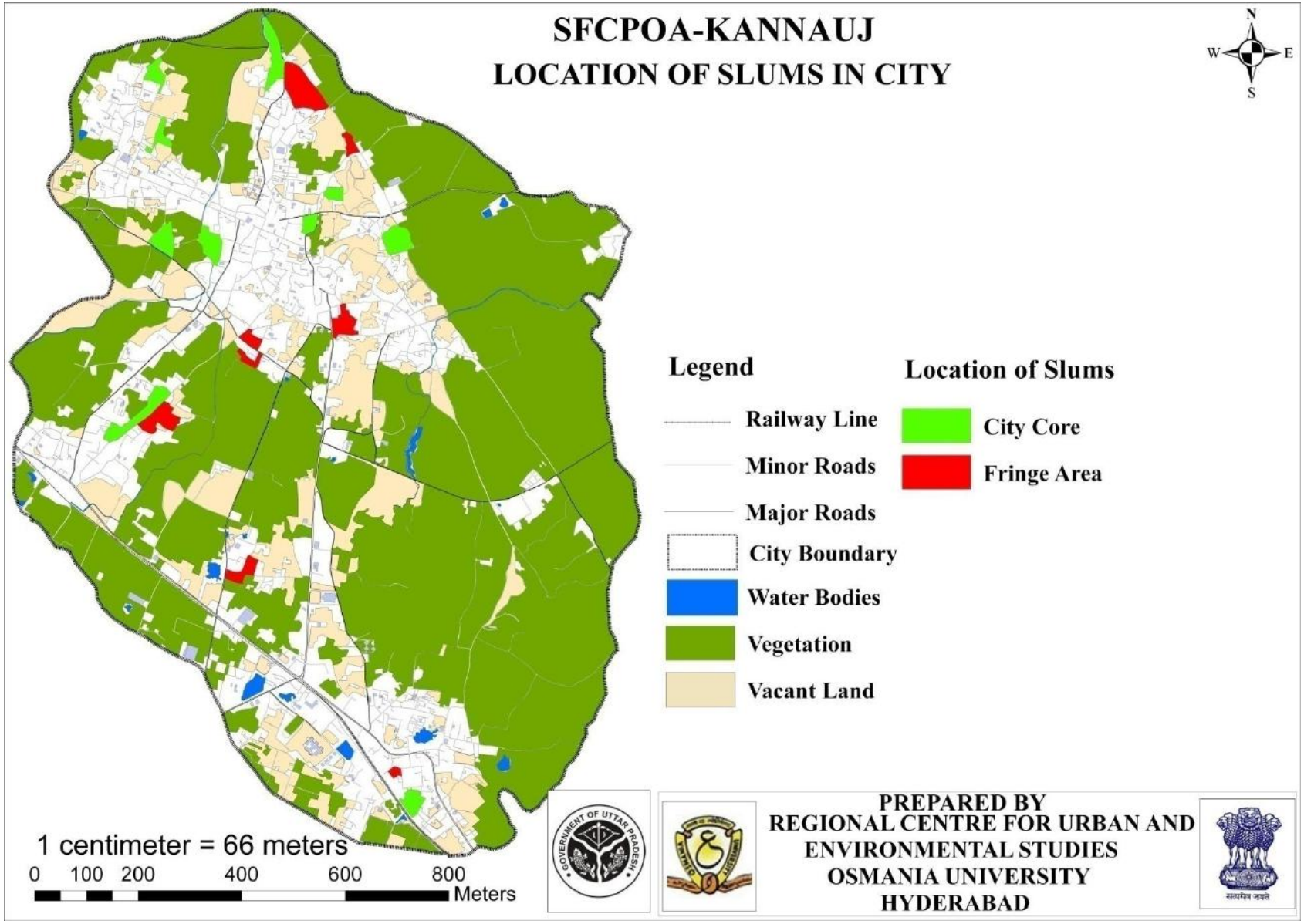
Table 3-1 : Comparison of city population & area against the slums

City Population	Slum population	% of slum population to city population	City Area (Ha)	Total Area under slums (Ha)	% of slum area to city area.
97,897*	11274	12	2900	29.83	1

*-Projected Population

Source: RAY Primary Survey, 2013

As shown in the *Map 3-1*, 10 slums are located in the core part of the city, while the other 7 slums in fringe areas. The abutting land use around the slums is predominantly residential in nature.



Map 3-1 : Location of Slums in Kannauj City

3.2 LISTING OF SLUMS –BASED ON NUMBER, STATUS, TENABILITY AND TENURE STATUS

For the purpose of analyzing the existing situation, the deficiencies of the slums and to provide improved basic urban services, the following variables mentioned in RAY guidelines were studied:

- Land tenure status
- Land tenability
- Ownership of the land
- Age of the slums

Considering the above variables, the details of each slum in the city that are characterized by poor physical and socio-economic conditions, irrespective of land tenure status and ownership have been identified through primary surveys. The following *Table 3-2* summarizes the aspects crucial for determining the current status of Kannauj slums.

Of the total 17 slums, 12 slums are on private lands, 2 slums were situated on land belongs to both private and State Government ownership. 3 slums are belongs to local body, as shown below in the *Table 3-2*, 100% of the slums do possess a secured tenure status and an enabled pleasant living condition.

Table 3-2 : Distribution of the slums w.r.to tenure, land tenability, age and land ownership

TENURE			LAND TENABILTY		
Status	**Secure**	**In secure**	**Tenable**	**Semi Tenable**	**Non - Tenable**
No. of Slums	17	0	17	0	0

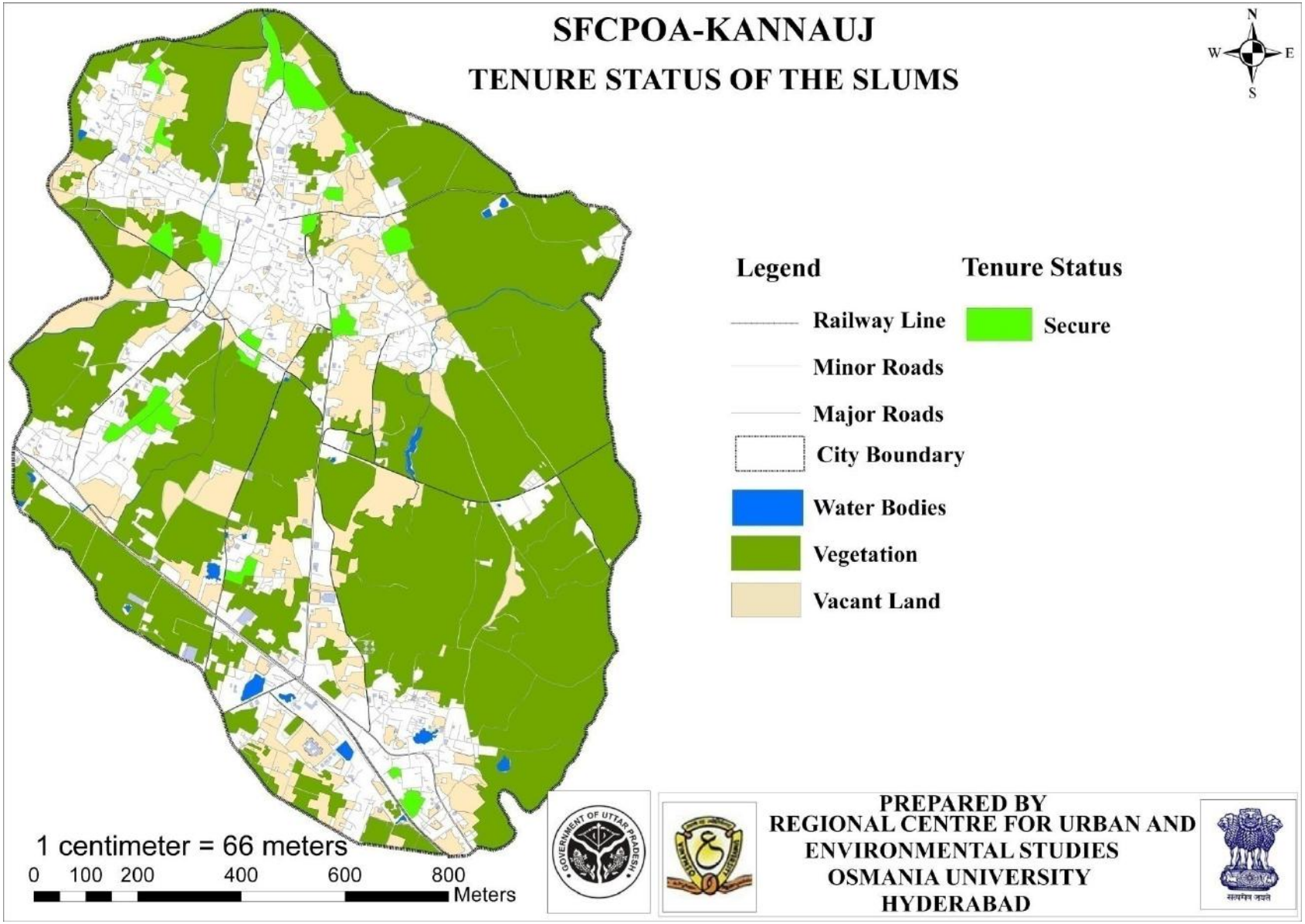
AGE OF SLUM						
Age	**0-15 years**	**16-30 years**	**31-45 years**	**46 - 60 years**	**61 - 75 years**	**Above 75 years**
No. of Slums	0	1	1	2	4	9

LAND OWNERSHIP			
Ownership	**Local Body**	**State Government**	**Private**
No. of Slums	3	2	12

Source: RAY Primary survey, 2013

3.2.1 Distribution of Slums by Land Tenure Status

Land tenure is an important part of social, political and economic structure of any neighborhood and enables entitlement of formal access to basic services. According to RAY guidelines, tenure status is "the mode by which land/property is held or owned or the set of relationships among people concerning land/property or its product" and defines the legal status of the land. As shown in the *Table 3-2*, 100% of the slum lands are secured and have access to basic amenities and in possession of certification.



Map 3-2 : Tenure status of slums

3.2.2 Distribution of Slums by Land Tenability Status

The land status of all listed slums/informal settlements should be classified by the ULB as Tenable[2], Semi Tenable[3] or Untenable[4] in order to determine whether the land is fit for human habitation and void of health hazards (RAY Guidelines).

As shown in *Table 3-2*, the current land tenability status for the 17 slums as identified has been presented where 100% of the slums are found to be Tenable.

3.2.3 Distribution of Slums by Land Ownership

Over 70% of the slums are situated on land belongs to private ownership, 18% of the slums owned by Local body and the reaming 12 % are located on land belongs to state government. In 70% of the slums situated on private land, 98% of the households hold patta's, possession certificates and are still eligible for slum redevelopment programmes considering the varying economic status of those dwellers.

3.2.4 Distribution of Slums by Age

Age of the slum is one of the important information to assess the condition of a slum in any city. Considering the fact that Kannauj being one of the oldest habitats as well as the major Perfume capital of the India, it has slums into existence over 75 years above. It is interesting to note that 53% of the slums in the city have been into existence for more than 75 years with remaining 47% of slums less than the 75 years. (Shown in *Figure 3-1*).

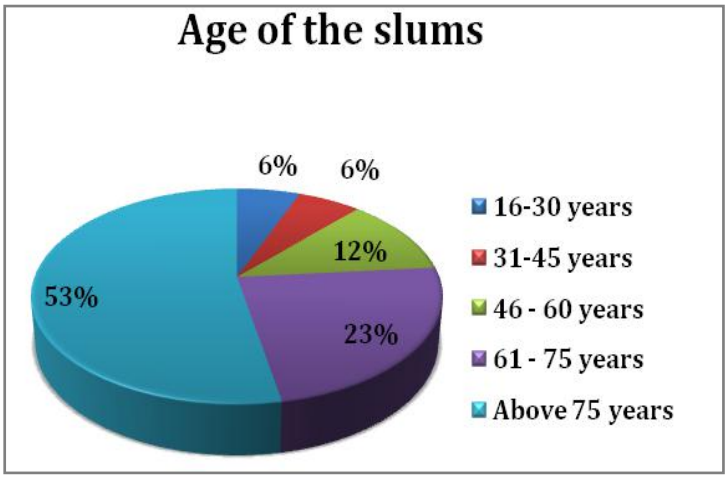
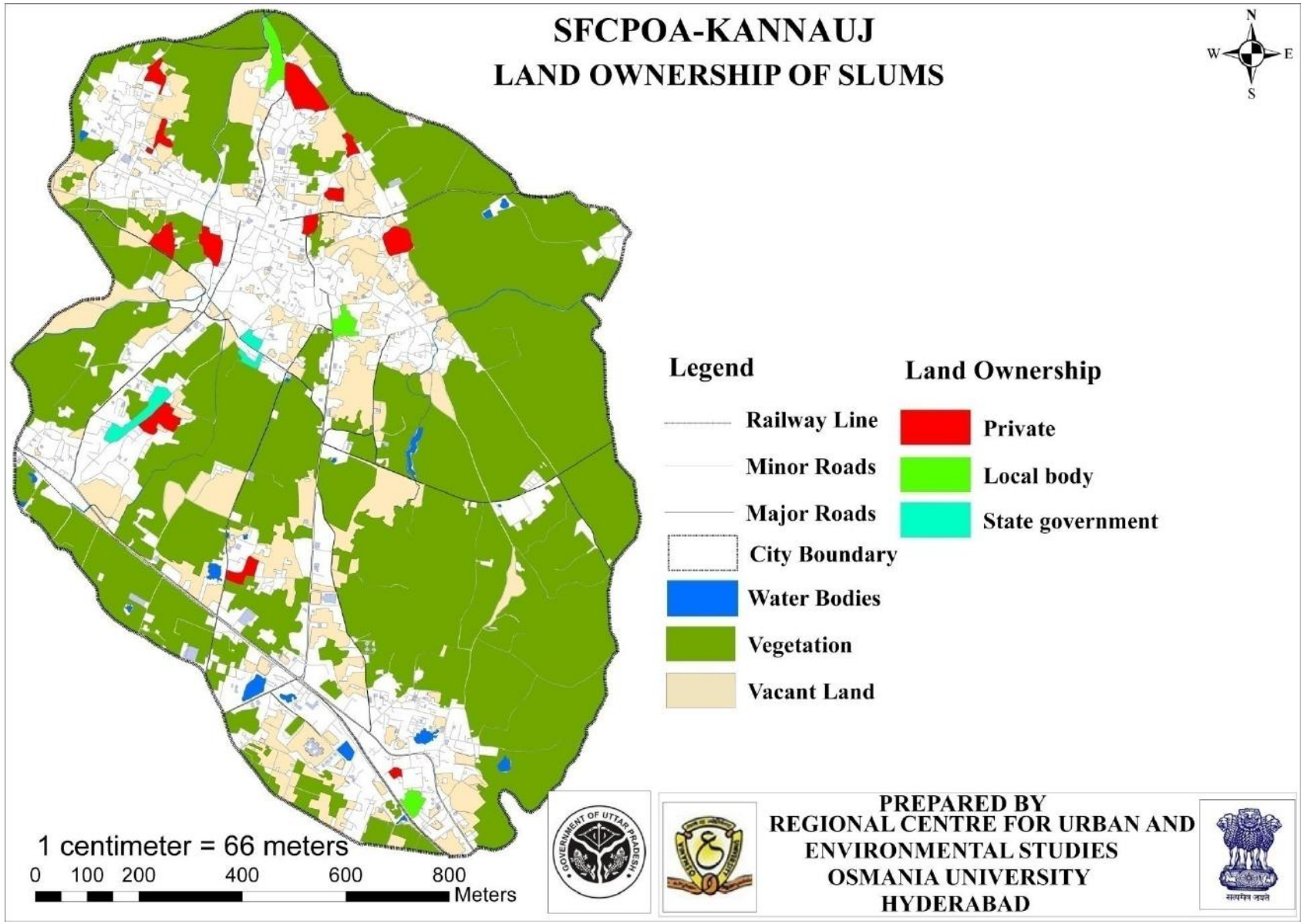


Figure 3-1 : Percentage distribution of slums in the city w.r.to age

[2] According to RAY, Tenable slums means all slums which are not located on hazardous locations suitable for human habitation and the land not earmarked for any major public facilities and therefore it can be regularized in the same location.

3 Semi tenable slums are those slums which are located on land zone for non-residential uses as prescribed by the master plan.

[4] Untenable slums are those settlements which are on environmentally hazardous sites, ecologically sensitive sites, prohibited areas around heritage sites, and on land marked for public spaces, utilities and services and infrastructure. These shall include settlements in lake/tank beds or near hazardous or polluting industries / activities which are detrimental to the life and property of the inhabitants occupying them.



Map 3-3 : Ownership of land in slum settlements

3.2.5 Notification status of the slums

According to National Sample Survey Organization, areas notified as slums by the respective municipalities, corporations, local bodies or development authorities were treated as "Notified slums", they tend to receive higher level of services and those unrecognized by the local bodies were considered as "Non-Notified slums". As per DUDA, Kannauj the city is having a total of 17 slums and all are non-notified slums. The NBO Annexure –I primary survey has been done for all 17 slums in the city.

Table 3-3 : Notification status of Slums

	NOTIFICATION STATUS			% PROPORTION OF SLUMS	
Status	**Notified**	**Non-Notified**	**Total**	**Notified**	**Non-Notified**
No. of slums	0	17	17	0	100

***Source*:** DUDA, Kannauj

Please refer **Annexure-1A**, for a detailed slum wise description of the above.

3.3 PHYSICAL PROFILE

Slum in Kannauj are scattered throughout the city and found mostly in the core area and in the vicinity of railway tracks. The general composition of majority of slums comprises of scheduled caste, and other backward classes, forming the weaker section of the society. From habitation point of view, in general, the slums located in the low lying areas, along open drains/nallah, tank beds and hazardous/toxic sites are susceptible to inundation, and other forms of disasters.

The slum concentration in these areas has not only led to poor living conditions for the slum dwellers but also responsible for the general deterioration of the living environment in the city. This is primarily due to lack of proper infrastructure services in these areas and considering the fact that most of these slums are overcrowded, there is always constant pressure on the city infrastructure and resources. In this section, the following set of variables was studied to assess the existing housing scenario in terms of the structures, its type, access to electricity and other related issues so as to bring out the deficiencies:

- Location of slums and its area
- Flood prone slums
- Physical location of slums
- Abutting land use
- Housing type

Table 3-4 : Summary table of the slums – area, location, abutting land use & flood vulnerability

AREA OF SLUM								
Area (Ha)	0 - 1 Ha		1 - 2 Ha		2-3 Ha	3 - 4 Ha	More than 4 Ha	
No. of Slums	5		7		3	1	1	
LOCATION OF SLUM IN CITY								
Location	Core area				Fringe area			
No. of Slums	10				7			
PHYSICAL LOCATION OF SLUM								
Location	Along Nallah (Major Storm water Drain)	Along other drains	Along Railway line	Along Major Transport Alignment	Along River / Water body bank	On River/ Water body bed	Hazardous/ Objectionable	Non-Hazardous / Non - Objectionable
No. of Slums	4	0	1	0	0	0	0	12
SLUMS PRONE TO FLOODING DUE TO RAINS								
No. of Days	Not Prone		Up to 15 days		15 - 30 days	More than 30 days		
No. of Slums	17		0		0	0		
TYPE OF AREA SURROUNDING SLUM								
Type of Use	Residential		Industrial		Commercial	Other		
No. of Slums	17		0		0	0		

Source: RAY Primary Survey, 2013

3.3.1 Distribution by Slum Area

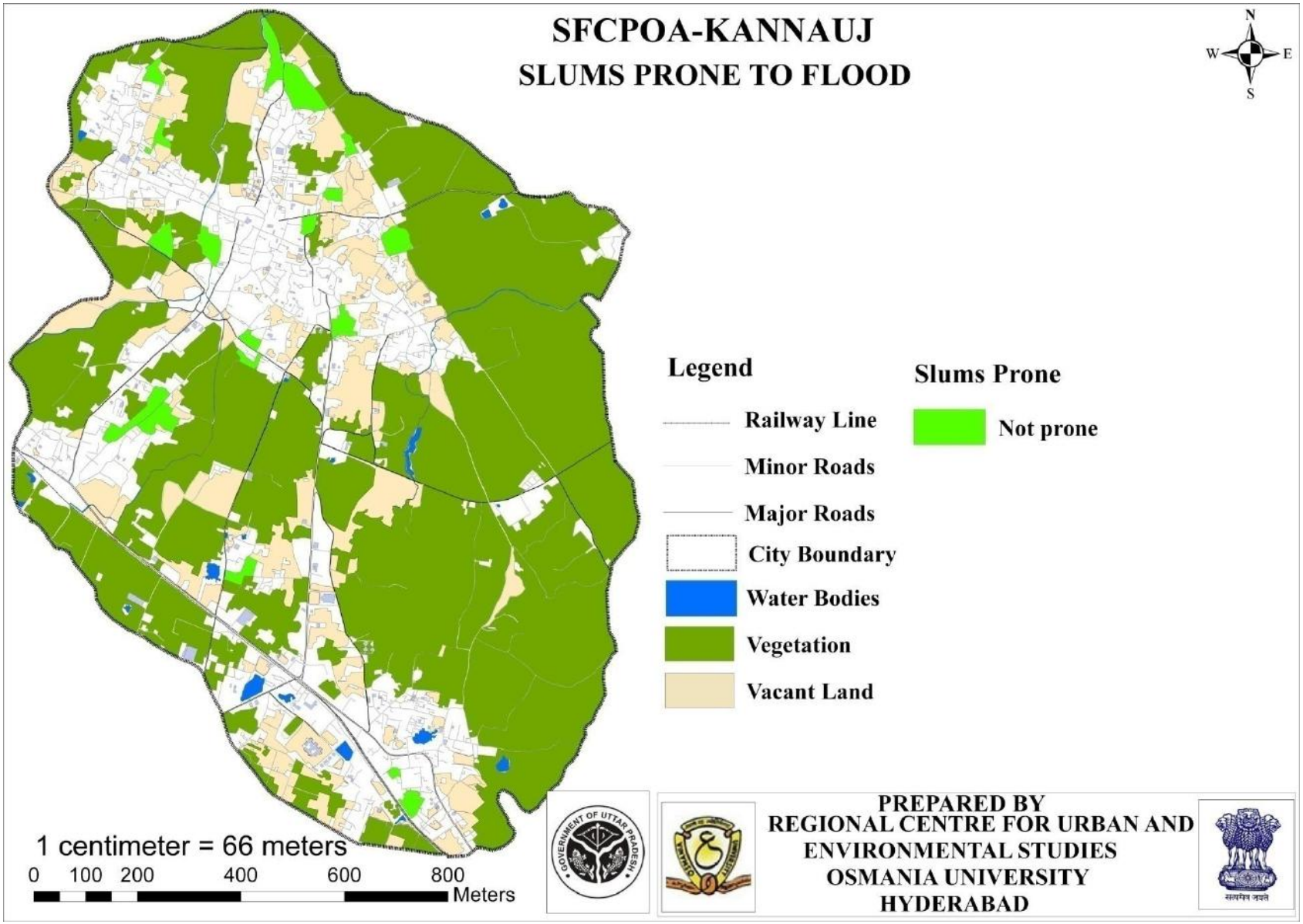
According to the primary survey, slum population constitutes 12% of the total City population where as the total slum area is (29 Ha) 1% of the total city area. Nearly 71% of slums are found to be situated in area less than 2 Ha and 29% of slums are situated in area more than 2 Ha. The total slum area under the ownership of local body is 5.08 Ha, under the state government 1.83 Ha and the Private ownership is 22.92 Ha.

3.3.2 Flood Prone Slums

As indicated in the *Table 3-4*, all the slums are found not prone to floods

Picture 3-1 : Stagnant of rain water in Kazipura slum

Picture 3-2 : Rain water remnant in Mubarak putia slum



Map 3-4 : Flood prone status of slums

3.3.3 Distribution of Slums by Physical location

Out of 17 slums, 10 slums are located in core area such as in old city and in other residential areas and remaining 7 were located in urban fringe. With respect to the physical location, around 23% of slums are located along storm water drains, 6% o slums are proximity of railway lines. In addition, 71% of the slums are located on the sites of non hazardous / non objectionable areas. The location of slums with respect to various physical settings is shown in the *Map 3-5*.

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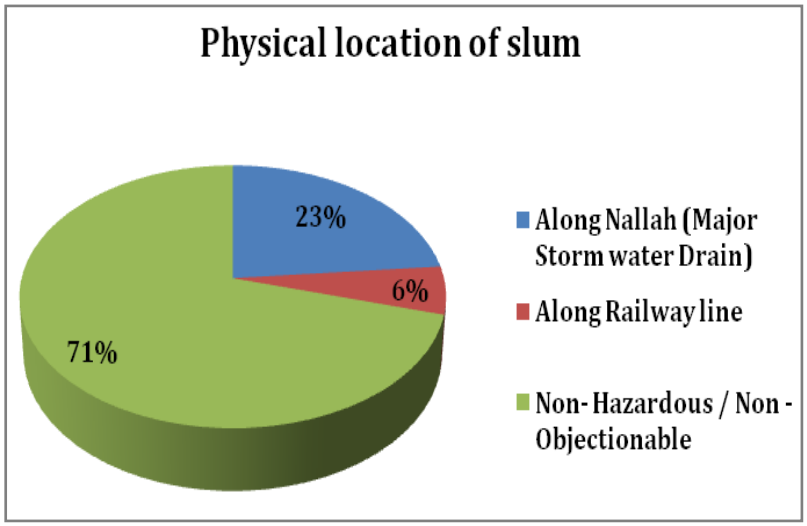


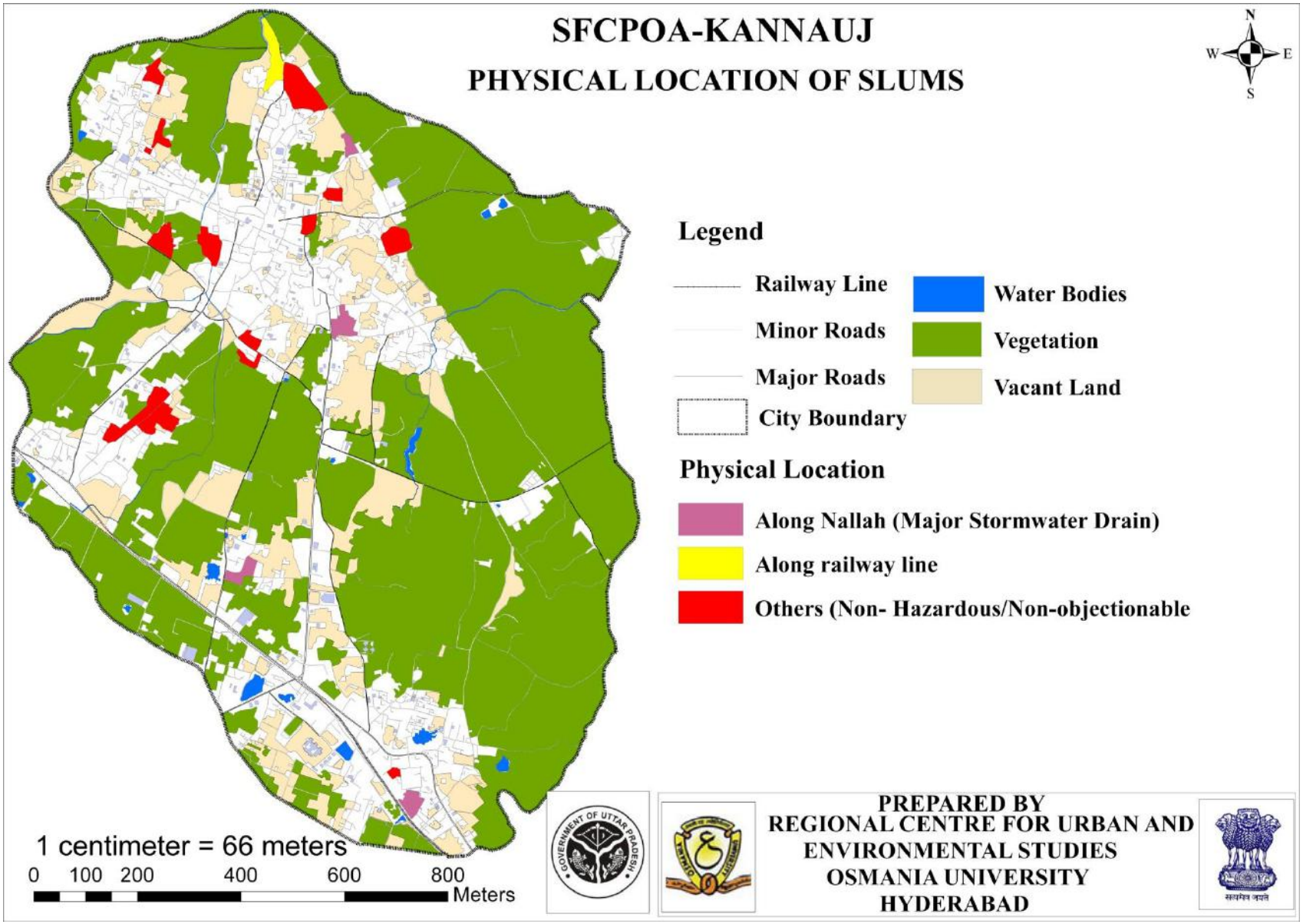
Figure 3-2 : Percentage distribution of slums w.r.to Physical location

Picture 3-3 : Nallah passing in slum

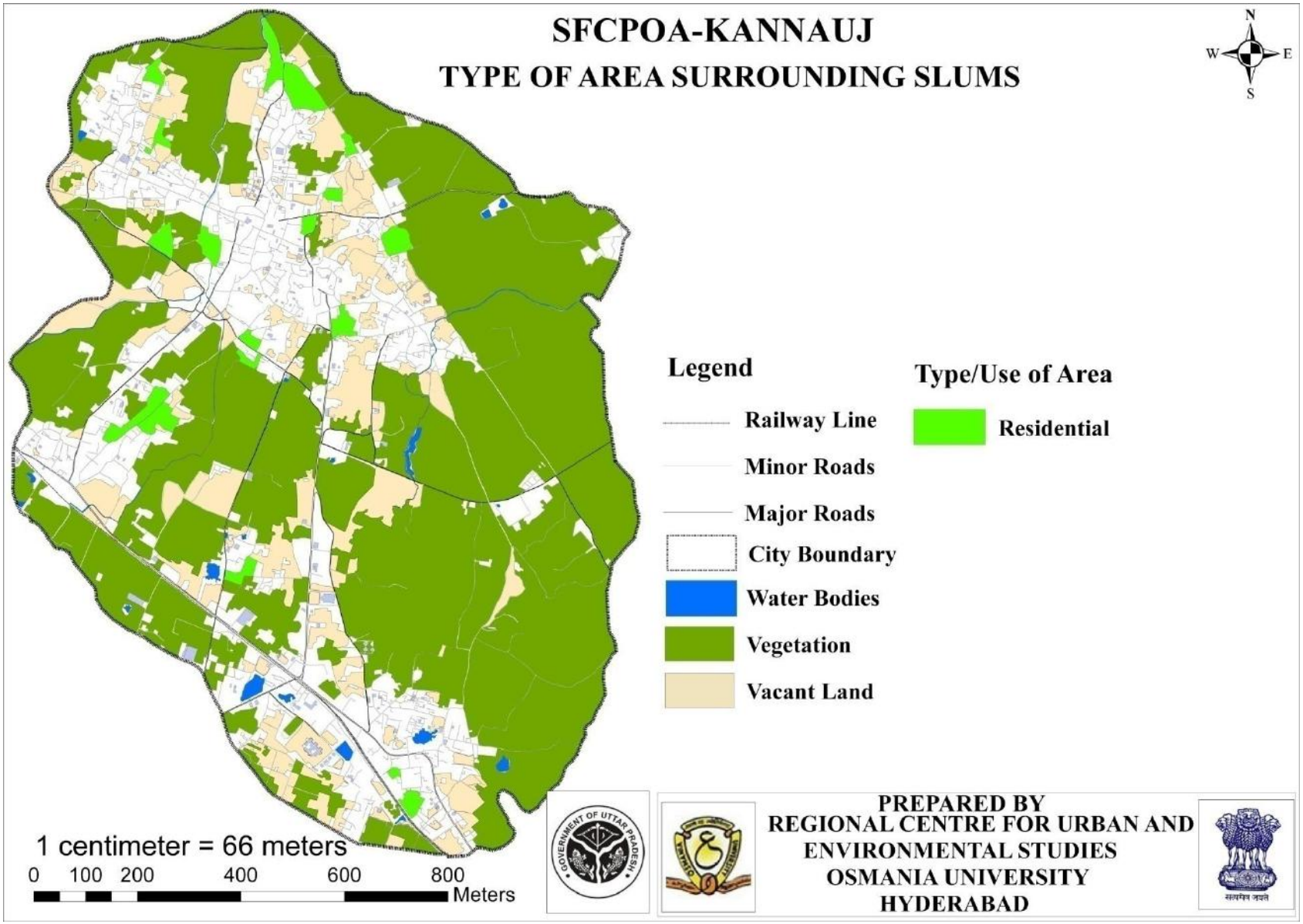
Picture 3-4 : Water body beside the slum

3.3.4 Distribution of Slums by Abutting Land use

Looking into the aspect of abutting land use, the *Table 3-4* reveals that 100% of the slums are surrounded by residential land use.



Map 3-5 : Physical location of slums

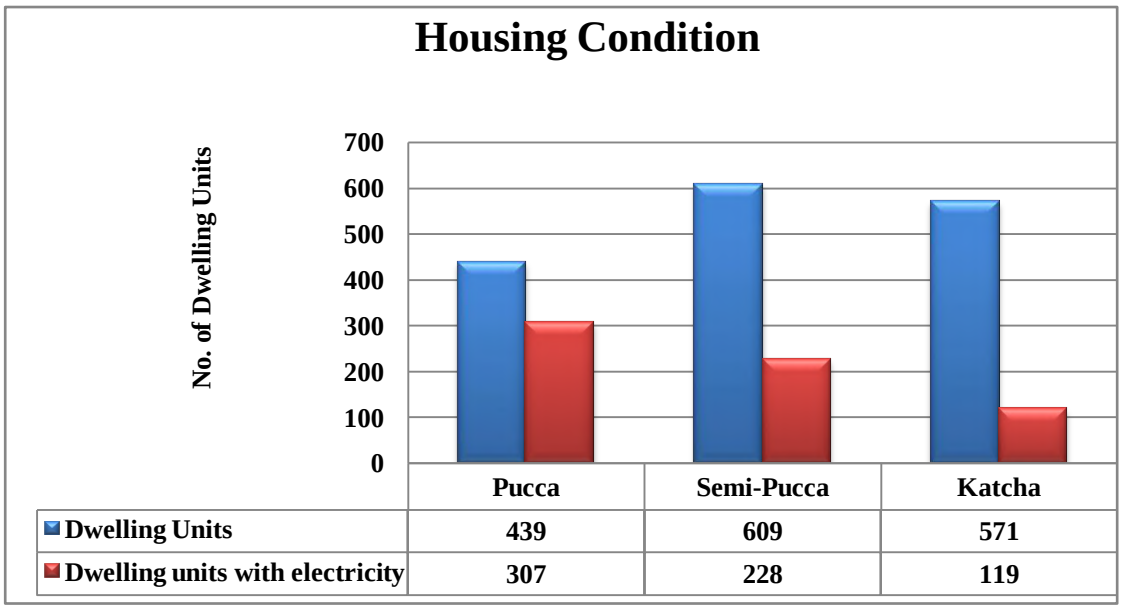


Map 3-6 : Type of area surrounding the slums

3.3.5 Distribution of Slums by Housing type

One of the prime indicators to assess the existing condition of a slum is housing. In order to understand the degree of living conditions, data on the type of housing structures in the slums is collected to examine the housing scenarios. For analysis purpose, the dwelling units were classified into pucca, semi-pucca and katcha, based on the kind of roofing and wall materials used.

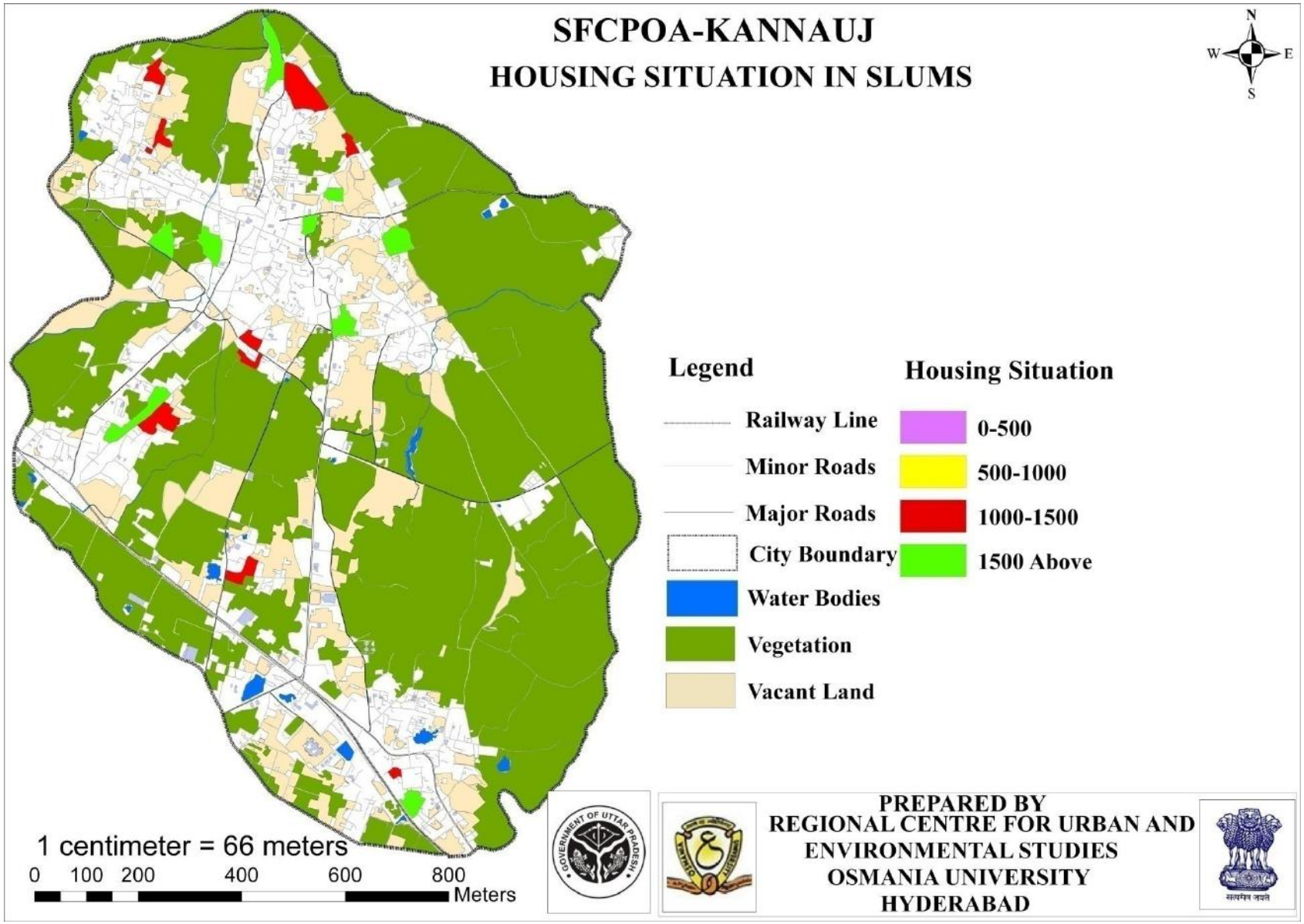
In Kannauj the total No. of dwelling units in the slums are 1619. Out of these, 27% of dwelling units are Pucca constructions, 38% units are Semi-Pucca and the remaining 35% are katcha in nature. With respect to electricity connection, about 40% of the dwelling units have access to electricity where 70% of pucca dwelling units, 37% of semi pucca and 21% of katcha dwelling units have access to the same. Hence there is a dire need to cover 60% of total houses with electricity, indicating the pathetic status of the slum dwellers.



Source: RAY Primary survey, 2013

Figure 3-3 : Housing condition of dwelling units in the slums w.r.to structure type and electricity

The *Map 3-7* depicts the current housing structure condition in the slums of Kannauj. For analytical purpose, semi pucca and katcha houses were considered exclusively to determine the housing shortage and the need to implement suitable housing redevelopment programmes. If the semi Pucca + katcha houses were greater than 75% then it is considered poor housing in awful state which needs to be addressed immediately or rebuilt. In the same way if the semi Pucca + katcha houses were less than 75% then it is assumed that housing condition not as good as Pucca houses. As per the data results, it was found that 8 slums have semi Pucca + katcha houses more than 75% while 9 slums in the latter category.



Map 3-7 : Housing condition in slums

Picture 3- 5: Semi Pucca dwelling units in Lodh puri slum

Picture 3- 6: Pucca dwelling units in Gripshah ka purva slum

Picture 3-7 : Semi pucca dwelling units in Takederwali galli slum

Picture 3-8 : Semi pucca dwelling units in hazigunj kurdh slum

Picture 3- 9 : Katcha housing structures in Munshiganj slum

Picture 3-10 : Katcha housing structures in Devanandapur slum

Based on the income levels and the affordability levels of the households, the kind of housing is determined and varies accordingly. Similarly in Kannauj, 27% of the Pucca houses are built using wall materials of burnt bricks, stones, cement concrete, timber, and roofing of reinforced brick concrete and reinforced cement concrete, PCC flooring. While semi Pucca houses have walls made up of Pucca material but roof is made up of the material other than those used for Pucca house and katcha houses are usually found to be built using make shift material like sandstone tiles, thatches, loosely packed stones, Jhopris and temporary tents.

Although most the houses are Pucca in nature, it is irony that these are in a dilapidated condition and in of up gradation. On housing occupancy status, it was found that 99% of the houses are self-occupied and 1% is rented. Due to lack of choice, and security, the population is forced to live and work in informal settlements and earn on a daily basis.

For slum wise details, please refer **Annexure-1B**.

3.4 DEMOGRAPHY & SOCIAL PROFILE

3.4.1 Population

According to NBO Annexure -I primary survey, the total population in 17 slums is 11274 residing in 1920 households, with an average household size of 6. The average population density of slum area in the city is 378 persons per Hectare. The ***Yusafpur bhagavan* slum** is having the highest population (1673) and ***Takedarwali galli* slu**m is having the lowest (200). The slum wise distribution of population is shown in *Map 3-8.*

3.4.2 BPL Population & Households

The BPL population constitutes about 8% of the slum population. In ***Ambedkar Saraya Ghag*** slum about highest percentage (28%) of the slum population is BPL population. ***Kacheritola & Bagiyafagel imam*** is the slum with lowest percentage (1%) of BPL population. Of the total slum households, 8% are BPL households i.e., 151 households.

Table 3-5 : Distribution of Slum population w.r.to different social groups

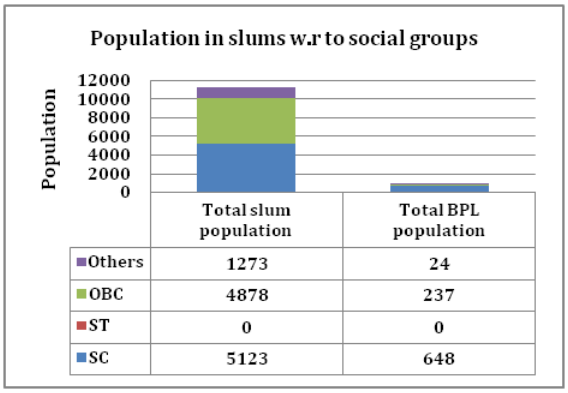
PARTICULARS	SC	ST	OBC	Others	Total	Minorities (out of total)
Total slum population	5123	0	4878	1273	11274	1254
Total Households	937	0	793	190	1920	190
Total BPL population	648	0	237	24	909	24
Total BPL Households	111	0	36	4	151	3
No. of women headed households	99	0	61	14	174	12
No. of persons > 65 years	184	0	224	62	470	55
No. of physical handicapped persons	18	0	11	3	32	6
No. of persons with tuberculosis	52	0	64	17	133	23
No. of Persons with Respiratory and Chronic diseases	12	0	15	4	31	3
No. of persons with tuberculosis	17	0	6	1	24	2
No. of Persons with Respiratory Diseases including Asthma	22	0	11	1	34	4
No. of Persons with Other Chronic Diseases	9	0	21	4	34	3

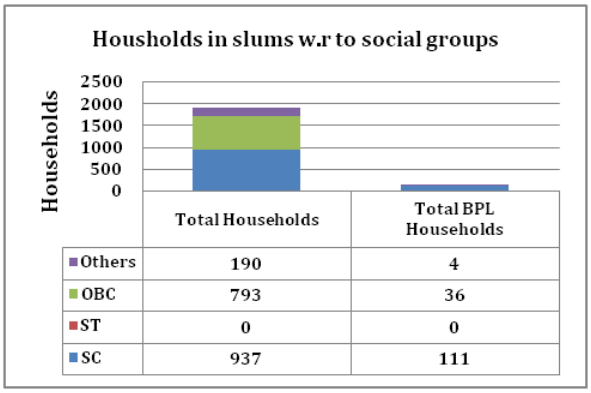
***Source*:** RAY Primary Survey, 2013

3.4.3 Distribution of Slum population & households by different Social groups

In the context of different social groups residing in slums of Kannauj, SCs and OBCs constitute the major proportion. About 89% of the population living in slums belongs to OBC & SC division of social groups. About 97% of OBC & SC population in slums is under BPL.

In consideration with households, about 90% of the households in the slums belong to OBC and SC division of social groups. Of total slum households, about 41% belong to OBC group of social division. It is further observed that 24% of OBC and 74% of SC households are living below poverty line (BPL).





Source: RAY Primary survey, 2013

Figure 3-4 : Distribution of population in slums w.r.to different social groups

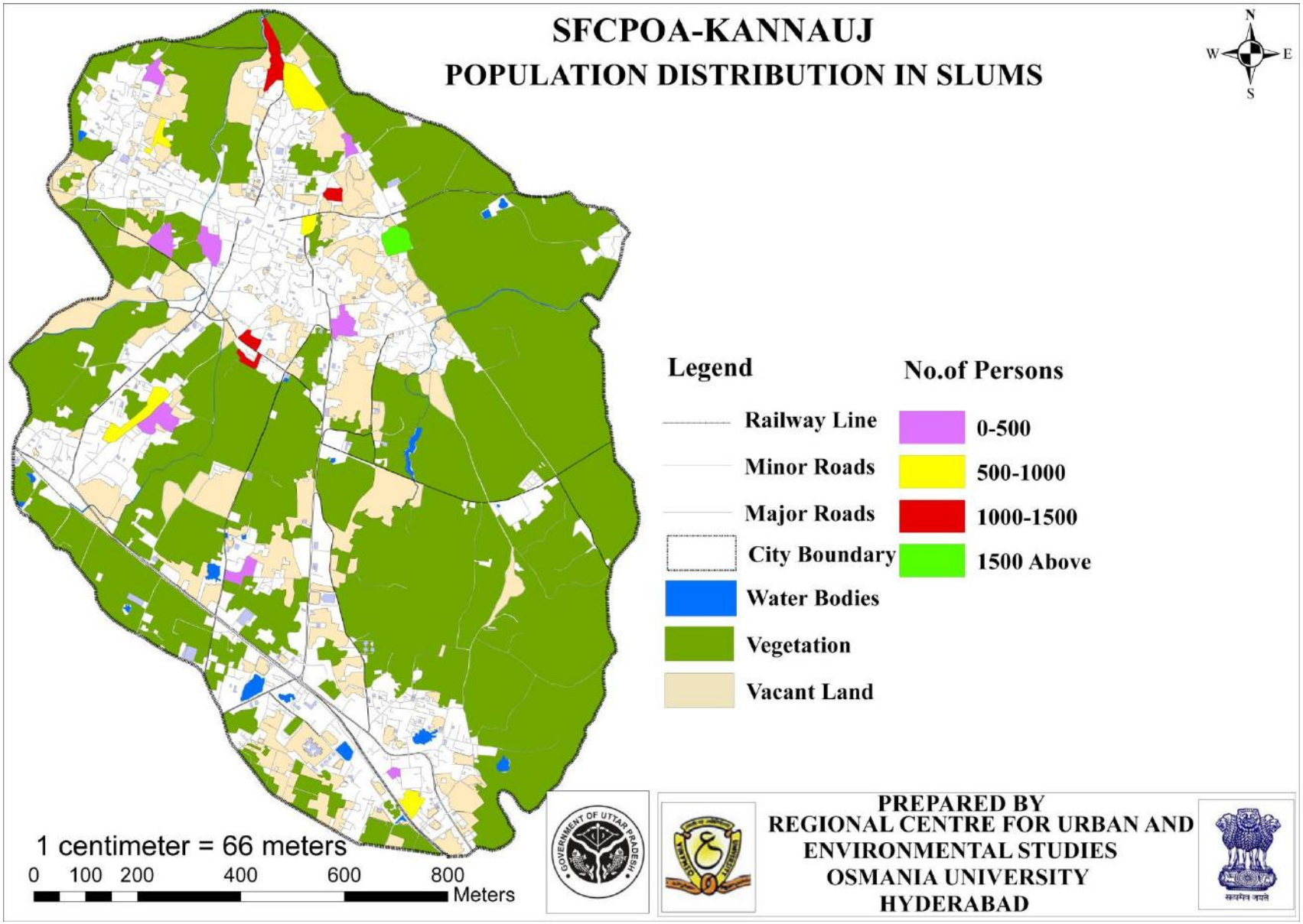
Figure 3-5 : Distribution of Households in slums w.r.to different social groups

3.4.4 Distribution of slum households by Minority communities

In Kannauj a significant proportion of minority[5] communities are living in slums. About 11% of the slum population belongs to minority communities and constitute about 10% of the total slum households. In terms of BPL population and households, 3% of the minority population in slums stood below the poverty line occupying 2% of total BPL households.

As shown in the *Table 3-5*, the persons with more than 65 years of age constitute 4% of the slum population. About 9% the total households in the slums are women headed households, which is more seen among OBC social group of households.

[5] The Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) were notified as minority communities in India under section 2(c) of the National Commission for Minorities Act, 1992.



Map 3-8 : Slum wise distribution of population

3.4.5 Literacy rate

The literacy rate of slums in Kannauj is 50%, where the male literacy rate is observed to be more compared to female literacy rate.

3.4.6 School Dropouts

According to Planning Commission, though most Indian States have done well in enrolling more and more children in schools, their inability to retain them has been a problem. The dropout rate was least for those belonging to the highest income group and maximum for those from the lowest income group and economically weaker sections. Children from poorer sections of the society drop out in the early stages of education due to the fact that either the children or their parents were not interested and nearly as many were on account of economic considerations, compulsion to work for wages or looking after younger siblings.

As per NBO Annexure-I survey, it is found that 2% (239 children) of the children in slums were school dropouts. The mitigation measures needs to be taken through strict implementation of education policy programmes and provision of elementary education to the deprived groups.

3.4.7 Number of Slums by Disability Status and Senior citizens

As per NBO Annexure -1 survey it is found that about 1 % of the slum population has people who are either physically handicapped or mentally challenged. The employment provisions needs to be made for those physically challenged person who are skilled enough.

For the well being of these sections of people viz., old, physically handicapped mentally challenged etc., it is essential to make due concessions and provision of adequate social facilities. In addition, the eligible old aged persons in BPL families should be entitled to National Old Aged Pension Scheme (NOAPS).

3.4.8 Number of households by Health Condition

Poor water and unsanitary conditions leads to adverse effects on health of households living in slums. It is quite apparent that slums are characterized by poor/crammed housing conditions, lack of good sanitation and contaminated water supply. Due to contamination of water and outlet of effluents into the river/ water bodies making the households exposed to respiratory problems, chronic and other diseases. In slums of Kannauj, it is found that about 0.2 % of the slum habitants are suffering with either tuberculosis, respiratory or with chronic diseases.

For slum wise details, please refer **Annexure-1C** on social profile.

3.5 ECONOMIC PROFILE

Kannauj is tehsil and administrative head quarter of the Kannauj district. It is basically a commercial and industrial town. The major part of its industrial activity is in the form of small-scale and house-hold industries. The small scale Perfume and house hold Aggarbatti industries are the income sources for the town dwellers. Market in the town is the trade centre and generates profitable income. Thus, commercial and industrial sectors are playing major role in Economic enhancement of the town. As per 2001 census, the working

population percentage of the city in 2001 is 28.50 (20,447). The workforce is majorly contributed by secondary and tertiary sector i.e. around 80%.

The above mentioned favorable conditions the city to encompass some decent infrastructure and housing, and as a result, the present economic base continues to fall short of the city's demands for municipal and service agency revenue, and the broader need to create jobs and attract more investment.

3.5.1 Livelihood profile

Two types of labor exist in all economies: skilled and unskilled. Skilled labor is the portion of workers in an economy that have specific, technical industry skills relating to business and the production of goods. Engineers, welders, accountants and scientists are a few examples of skilled labor. Unskilled labor is the cheaper and less technical portion of the workforce that makes up a large part of an economy's labor market. This workforce plays the important part of performing daily production tasks that do not require technical abilities.

As indicated in NBO Annexure –I survey, 50% of the slum population are illiterates, lack in skill and professional training, making it difficult for them to obtain skilled employment opportunities in Kannauj, hence end up doing low or moderately paid jobs on a daily basis.

A majority of the working population in the slums is engaged as in lives stock and its allied activities, agricultural and construction laborers, rickshaw pullers, auto rickshaw drivers, informal sector like selling fruits, vegetables, other utensils, small scale industries, tobacco making, wholesale business and home based small businesses. On the other hand, women in the families are majorly involved in domestic help.

3.5.2 Distribution of slums Households by Occupation status

As per NBO Annexure –I survey, it is inferred that 76% of the households are found to be working as casual laborers and 10% on regular wage basis which includes domestic help, rag pickers, and vegetable vendors. Only 6% is actually working on monthly salary, indicating a secured position and skilled employment. Therefore, nearly 79% of the slum households do not have access to a dependable occupation and secure income.

As per the recent NBO Annexure–I survey, 79% of the slum households do not have opportunities towards sustainable occupation and secure income. This situation of slum livelihoods need to be taken into consideration in future development programmes as there is a dire need for an enhanced productivity in the city.

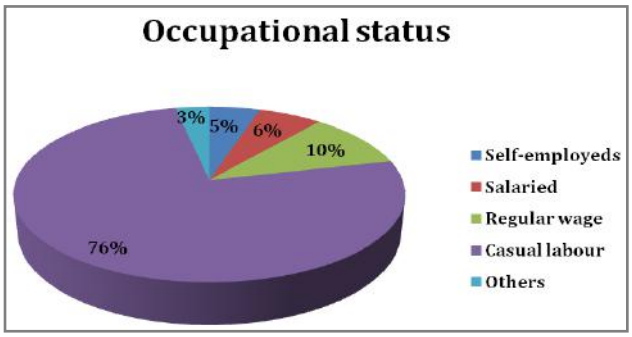


Figure 3-6 : Distribution of slum household's w.r.to occupational status

3.5.3 Monthly Income by Households

In respect to monthly income of households, it is found that, about 39% of the households income ranges between ₹2000 - ₹3000. 30% of the households earn in the range of ₹1500 - ₹2000. The households earning less than ₹1500 constitute about 18%.

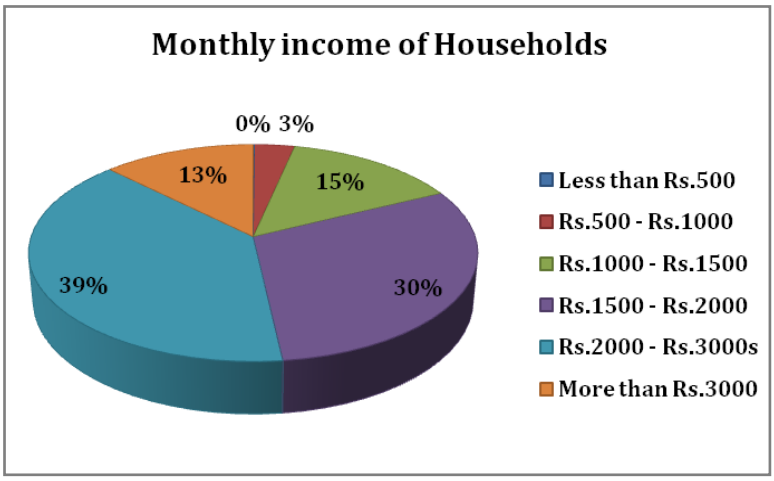


Figure 3-7 : Distribution of household's w.r.to monthly income

Further, the livelihood pattern has become indefinite and irregular for the households, where only 39% of them are earning more than Rs.3000/- per month.

The above statistics reveal that there is urgency in creating economic assistance which has to include training, job placements, credit and technical support to small and marginal businesses, creating new society –owned enterprises, providing micro-finance facilities and loans for housing and financial assistance such as subsidies for building materials.

There is ample scope for programmes like SJSRY projects to be launched particularly STEP UP, UCDN, UWESP in most of the slums as part of livelihood promotion and leads to enhanced productivity.

For slum wise details, please refer **Annexure-1D** on Economic details.

3.6 PHYSICAL INFRASTRUCTURE

Sustainable growth of a city depends on its infrastructure facilities. Lack of infrastructure and institutional mechanism can lead to collapse of urban system in a city. Access to basic services has now become a criterion for identification of the poor areas in a city. The responsibility for urban service provision in an equitable manner lies with the ULB, where an increasing gap in service levels and the difficulties in providing the same are prevalent. Information on access to services in terms of Physical Infrastructure of slums Kannauj city has been collected and a brief analysis on the current status of Water Supply, sewerage, Storm Water drainage and Solid Waste Management in slums is presented. The numbers indicated in the following *Table 3-6* are based on NBO Annexure – I survey of 17slums.

3.6.1 Water Supply

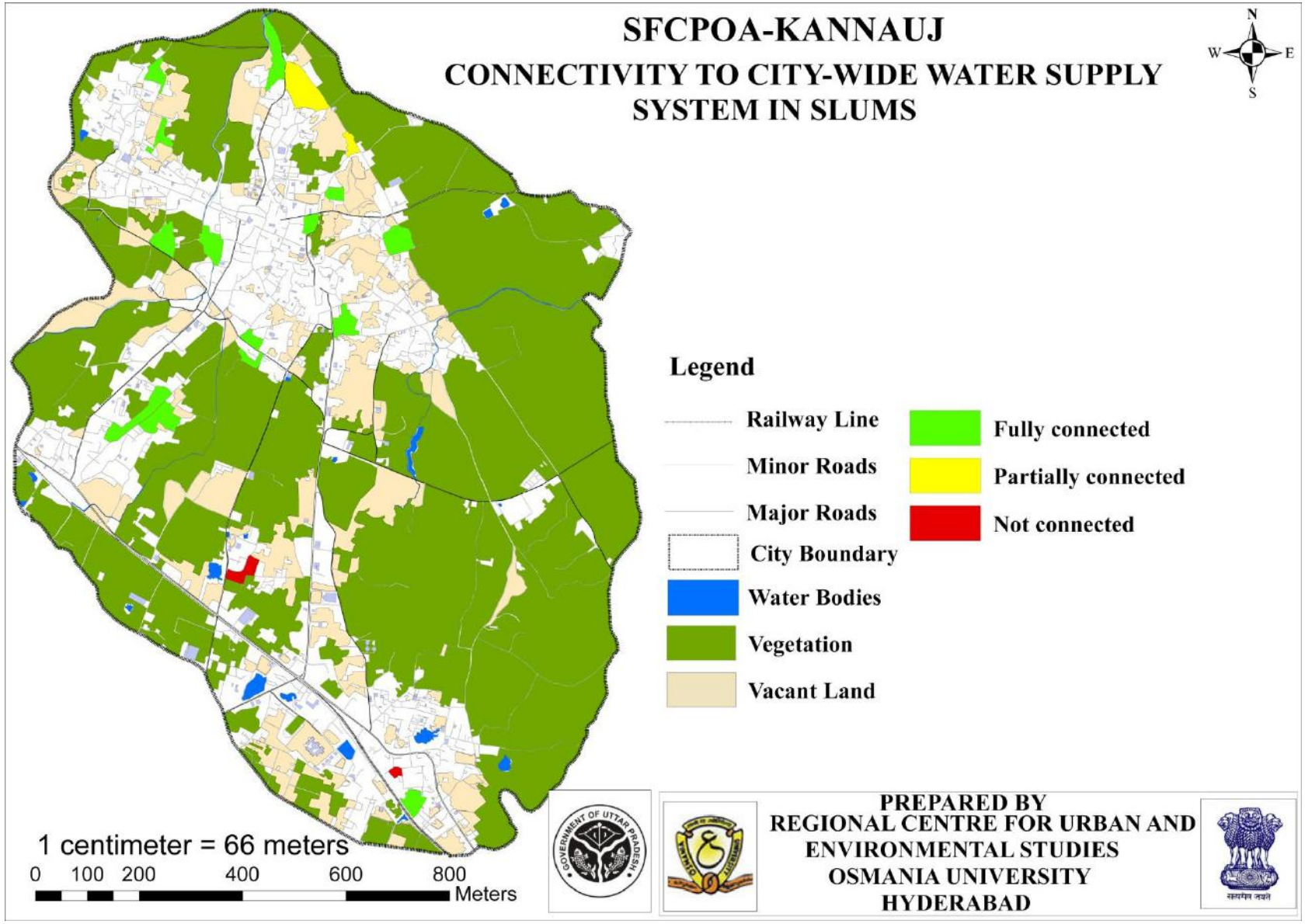
Table 3-6 : Current status of water supply in slums

CONNECTIVITY TO CITY WIDE WATER SUPPLY SYSTEM								
Status	**Fully Connected**		**Partially Connected**			**Not Connected**		
No. of Slums	13		2			2		
SOURCE OF WATER SUPPLY FOR HOUSEHOLDS								
Source	**Individual Tap**	**Public Tap**	**Tube well/ Bore well / Hand pump**	**Open Well**	**Tank / Pond**	**River/Canal/ Pond**	**Water Tanker**	**Others**
No. of Households	698	418	669	3	1	0	0	131
WATER SUPPLY SOURCE								
Ownership	**No. of Individual Taps**		**No. of Public taps**		**No. of Tube wells/ Bore wells / Hand pumps**			
No. of Connections	478		73		106			
DURATION OF PIPED WATER SUPPLY TO SLUMS								
Duration	**Less than 1 hr daily**	**1-2 hr daily**	**More than 2 hrs daily**	**Once in a week**	**Twice a week**	**Not regular**	**No supply**	
No. of Slums	0	6	11	0	0	0	0	

***Source*:** RAY Primary Survey, 2013

a. Connectivity to City Wide Water Supply System

Most of the slum households either have direct access to water supply service or access it through community or common facilities. Of the total slums, 76% of slums are fully connected to the city wide water supply system and 12% slums are partially connected. The remaining 12% of the slums do not have connectivity to city water supply system. The following *Map 3-9* shows the number of slums that are connected to city wide water supply system.



Map 3-9 : Connectivity of slums to City wide trunk water supply system

b. Existing sources of Drinking water

In regard with source of drinking water, over **36%** of the slum households i.e., 698 households out of 1920 households have their own individual water supply connections, where potable drinking water being supplied by the ULB. A significant portion of **64%** of the slum households does not have own water supply connection. They usually depend on public taps, hand pumps, tube wells and on neighbor households who have access to water supply connections.

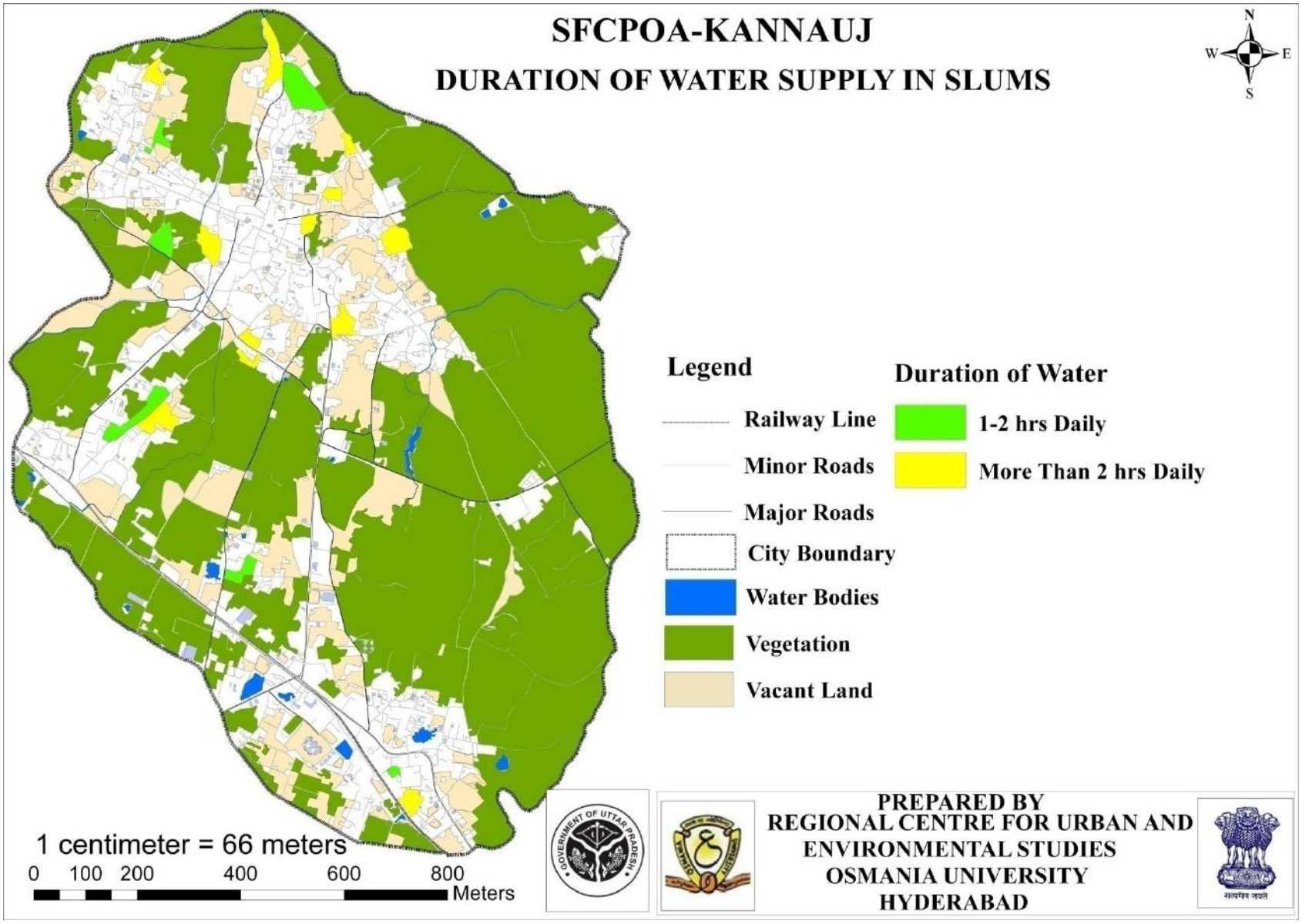
c. Duration of Piped Water Supply

The drinking water is supplied usually once in a day or once in couple of days in the city which change in accordance with season. In Kannauj for 35% of the slums (6 slums) the piped water is supplied for duration of 1 to 2 hours daily and remaining 65%of the slums (11 slums) found that the drinking water is supplied for more than 2 hrs daily.

Picture 3-11 : Handpump in lodh puri slum

Picture 3-12 : Public tap in skekepura slum

Despite the connectivity to city wide water supply system, the major problem observed to be is the poor quality of water. The source of water supply to the city is through ground water and the quality of water being supplied by the ULB is of standard 'India Mark II'. The mix of pollutants, cracked old water pipes may be a factor for contamination of water. The quality of water is one of the major tasks in the city which needs to be addressed immediately.



Map 3-10 : Duration of Water Supply in slums

3.6.2 Sanitation

Sanitation and sewerage system are not only the basic necessities of life, but they are also crucial for achieving the goal of "Health for All". Increased sanitation coverage is directly linked to improvement of health status. Lack of sanitation is a universal problem when it comes to slums and is markedly less than access to other basic services. While, it is worthwhile to note that the proportion of people having access to sanitation in urban areas is considerably greater when compared to their rural counterparts, however the problems are more exacerbated in slums.

Urban sanitation is perceived as being important because of the health and decency is factor. In case of slums, it is observed that sanitation facilities are worst and in pathetic condition. A comprehensive view of the sanitary facilities as well as current sewerage system in the slums is shown in *Table 3-7:*

Table 3-7 : Status of Sanitation in slums

DRIANAGE AND SEWERAGE FACILITY										
Type of facility	**Storm water drainage**			**Underground drainage / Sewer lines**			**Digester**		**Not connected to sewer or digester**	
No. of Households	1865			N/A			N/A		N/A	
CONNECTIVITY TO CITY WIDE STORM WATER DRIANAGE SYSTEM										
Status	**Fully Connected**			**Partially Connected**			**Not Connected**			
No. of Slums	15			1			1			
CONNECTIVITY TO CITY WIDE SEWERAGE SYSTEM										
Status	**Fully Connected**			**Partially Connected**			**Not Connected**			
No. of Slums	0			0			17			
LATRINE FACILITY USED BY HOUSEHOLDS										
Type of Latrine	**Public Community**			**Shared Latrine**			**Own latrine**			**Open Defecation**
	Septic tank/ flush	**Service latrine**	**Pit**	**Septic tank/ flush**	**Service latrine**	**Pit**	**Septic tank/ flush**	**Service latrine**	**Pit**	
No. of Households	0	0	0	0	0	0	417	0	145	1304

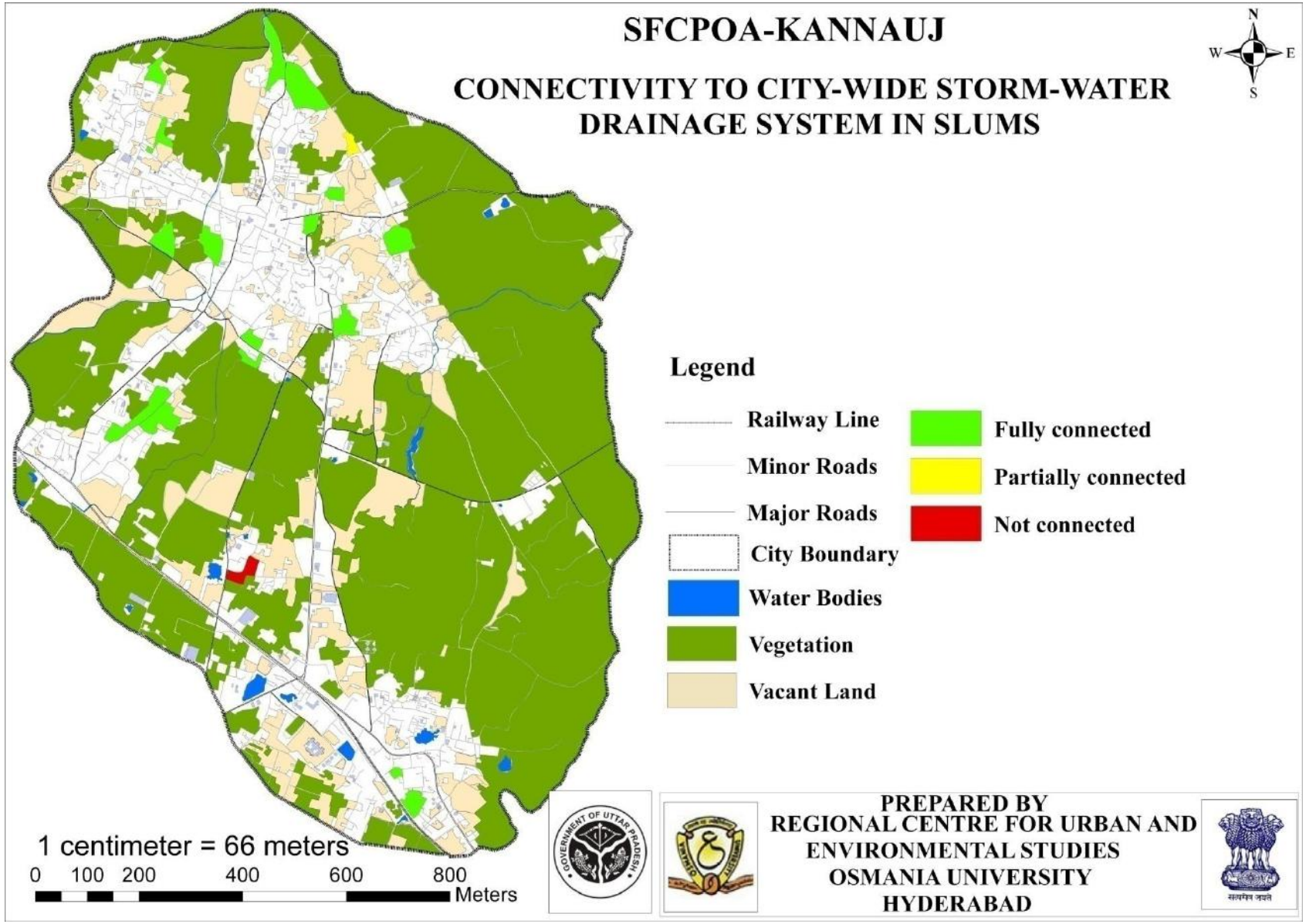
***Source*:** RAY Primary Survey, 2013

a. Drainage & Sewerage facility

About 97% of slum households are having access to storm water drain system. The underground drainage/ sewer system is absent in the slums. About 3% of the slum households are not connected to sewer system and majority of the households are katcha structures.

b. Connectivity to City wide Storm water drainage

In regard with connectivity of slums with city wide storm water system, about 88% of the slums are fully connected and 6% of slums are partially linked to the system. The rest 6% of the slums does not have connectivity to the city wide system. Given the situation, it is necessary to improve the system as well as provide newer connections before it infiltrates into the environment.



Map 3-11 : Connectivity of slums with city wide storm water drainage system

Picture 3-13 : Storm water drain in Harigunj kurdh slum

Picture 3-14 : Open drainage in kacheritola slum

c. Connectivity to City wide trunk Sewerage System

In respect to connectivity of slum with the city wide sewerage system, all slums don't have city wide trunk sewerage system. The following *Map 3-12* presents the status of the slums that connected to city wide sewerage system.

d. Distribution of Households by use of different type of toilet facilities

Access to toilet/latrine is one of the basic necessities and is an indicator used for measuring quality. In Indian context three different types of toilets were usually used viz., pit, service latrine, and septic tank/flush. Three different ways of access to toilet was considered viz., own latrines, shared latrines and public community toilets. In lack of access to these facilities, the practice of open defecation is widespread.

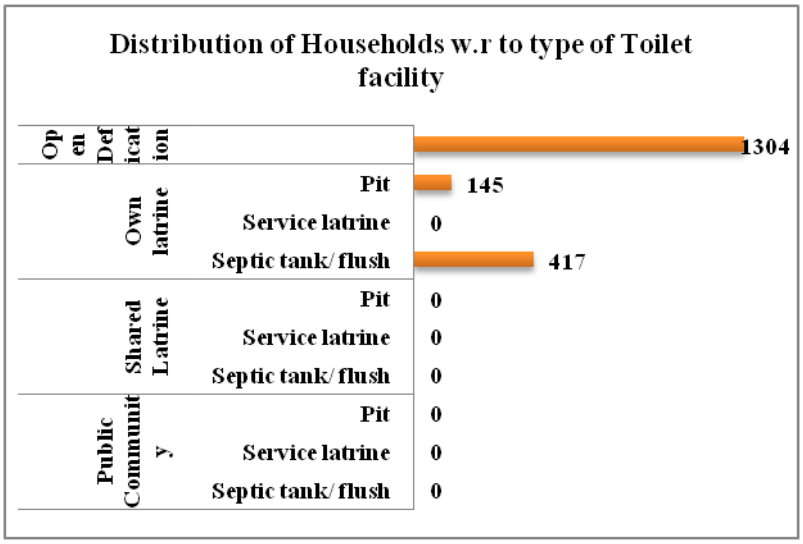
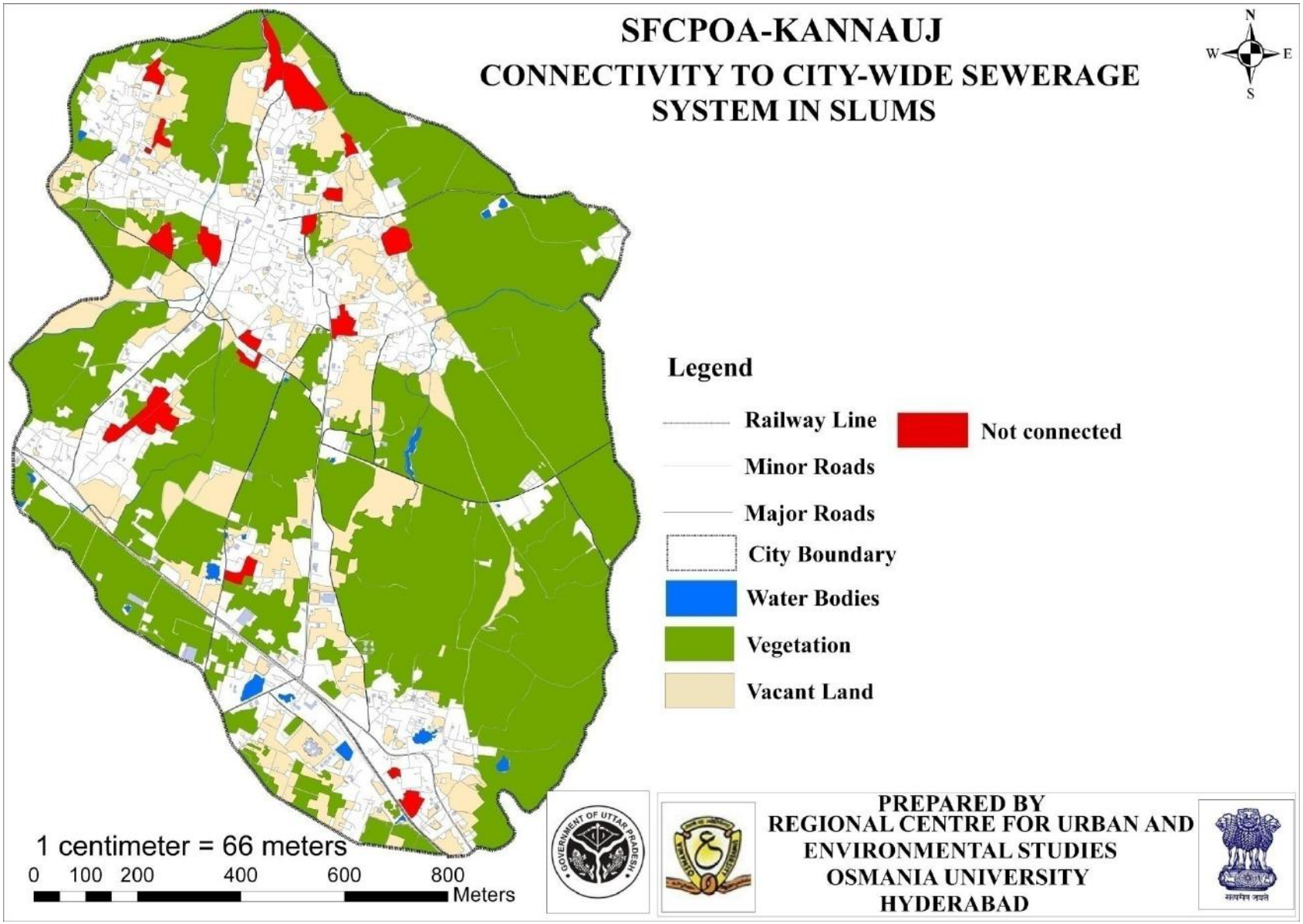


Figure 3-8 : Distribution of Households w.r.to type of toilet use

As evident in *Figure 3-8*, about 32% of theslum households have access to own latrine with septic tank/flush type of latrine. An alarming share of about 68% slum house holds practice defication which leads to unhygenic environment and health related problems. Even though 32% of the households have access to some form of toilet, it is believed the exisitng toilet system is considered to be of primitive stage with no proper maintenance and lacks general hygienic condition, further deteriorating the environment.



Map 3-12 : Connectivity of slums with city wide sewerage system

3.6.3 Solid waste management

Well functioning and safe solid waste management system in slum is vital so as to minimize the health hazards and the environmental pollution caused by solid waste. In many areas, garbage disposal services are jagged and sometimes not available. People are forced to live in such environment. An efficient, safe and proper dispose of solid waste generated is the prior need for city, community/slum development.

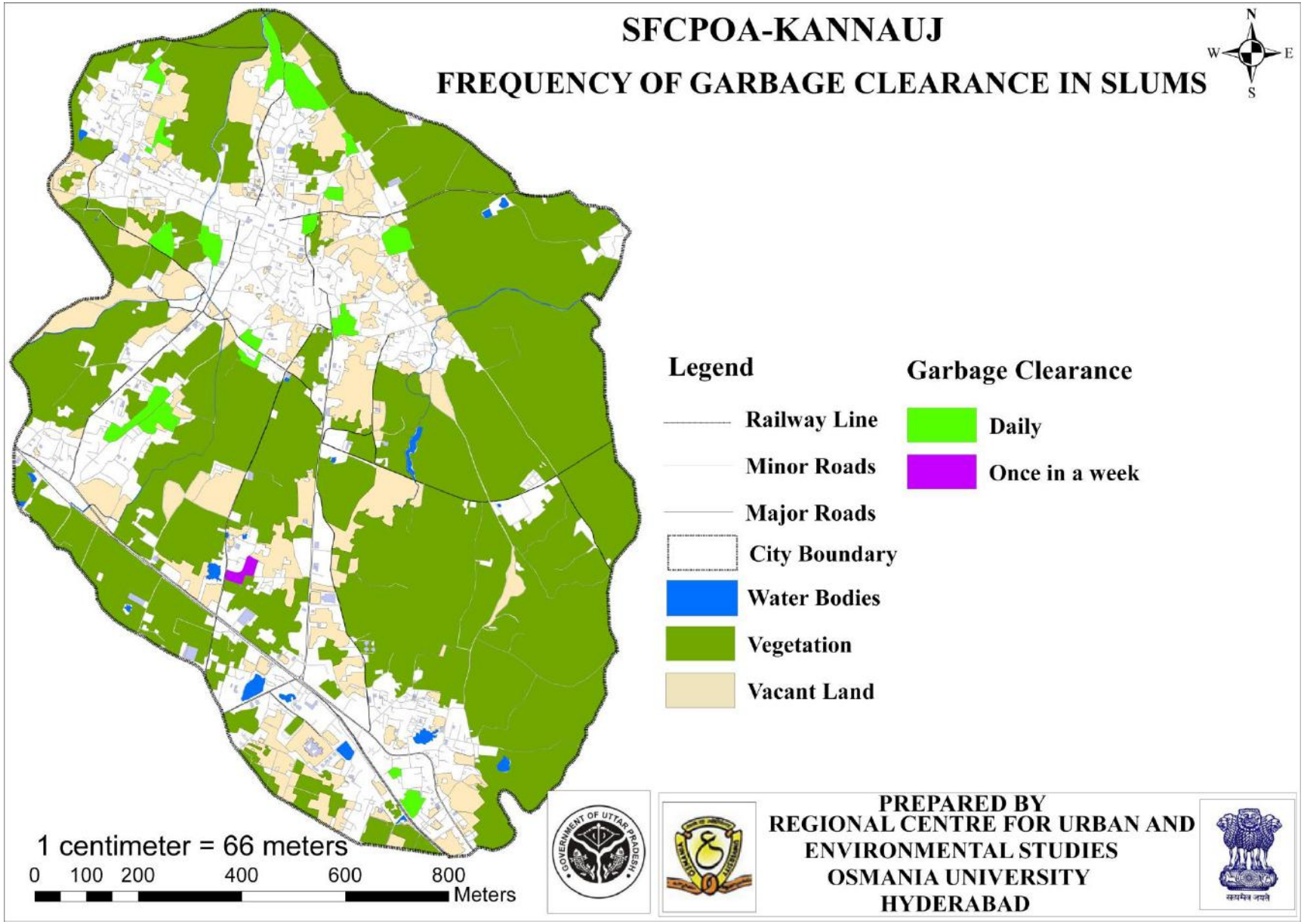
Table 3-8 : Status of Municipal Solid waste management in slums

ACTIVITY	No. of Slums
FREQUENCY OF GARBAGE DISPOSAL	
Daily	16
Once in 2 days	0
Once in a week	1
Once in 15 days	0
No collection	0
ARRANGEMENT OF GARBAGE DISPOSAL	
Municipal staff	17
Municipal Contractor	0
Residents themselves	0
Others	0
No arrangement	0
FREQUENCY OF CLEARANCE OF OPEN DRAINS	
Daily	16
Once in 2 days	0
Once in a week	0
Once in 15 days	0
No clearance	1

***Source*:** RAY primary survey, 2013

a. Frequency of Solid waste disposal

The *Table 3-8* gives an overall picture of the solid waste management in slums, about 94% of slums have daily clearance of garbage, in 6% of slums the waste is collected once in a week or even more. Though the collection of waste is taking place in few slums, majority of the slum areas are found to be affected with insanitary conditions, which require immediate attention from concerned authority.



Map 3-13 : Frequency of Garbage collection in Slums

b. Arrangement of Garbage Disposal

As shown in the *Table 3-8*, in 100% of the slums, the solid waste disposal activity is handled by the municipal staff. In areas where there is lack of solid waste disposal or collection, the disposal activity is taken by the residents themselves. The existing scenario of solid waste collection and disposal reflects the necessity for increased staff and regular clearance to avoid the unsanitary conditions.

Picture 3-15 : Open dumping of Garbage in Bagiyafagel slum

Picture 3-16 : Dumper Placer in lodh puri slum

c. Frequency of Clearance of Open drains

In respect with the clearance of open drains, 94% of the slums have daily clearance of open drain; in about 6% of the slums the no clearance or totally absent, further deteriorating environmental conditions and contaminating the ground water.

For slum wise details, please refer **Annexure-1E** on **Physical Infrastructure** details.

3.6.4 Roads – Condition & Connectivity

National Highway-91 passing through the city is providing good connectivity to other districts of Uttar Pradesh. City is having intra road network of which 58 km is pucca and 7 km is katcha (2001 census town directory) enabling people to commute within the city. Roads are challenged with appropriate signage and poor maintenance and the condition become worse particularly in rainy season. The road density is also poor when compared with population i.e. 808 meters for every 1000 people (> 1 km). Majority of the slums in the city or situated in the vicinity of these roads and some near to railway track. Though majority of the slums are well connected by approach roads, the condition of the internal roads in the slums are in bad state. The *table 3-9* shows the existing statistics of road network in slums.

Table 3-9 : Existing condition of Road network in slums

	No. of Slums
APPROACH ROAD/LANE/CONSTRUCTED PATH OF THE SLUM	
Motorable Pucca	15
Motorable Kutcha	1
Non-Motorable Pucca	1
Non-Motorable Kutcha	0
DISTANCE ROM THE NEAREST MORTORABLE ROAD	
Less than 0.5 Km	17
0.5 to 1.0 km.	0
1.0 km to 2.0 km.	0
2.0 km to 5.0 km.	0
more than 5.0 km	0
CONDITION OF INTERNAL ROADS	
Motorable pucca	7
Motorable kutcha	3
Non-Motorable pucca	5
Non-Motorable kutcha	2

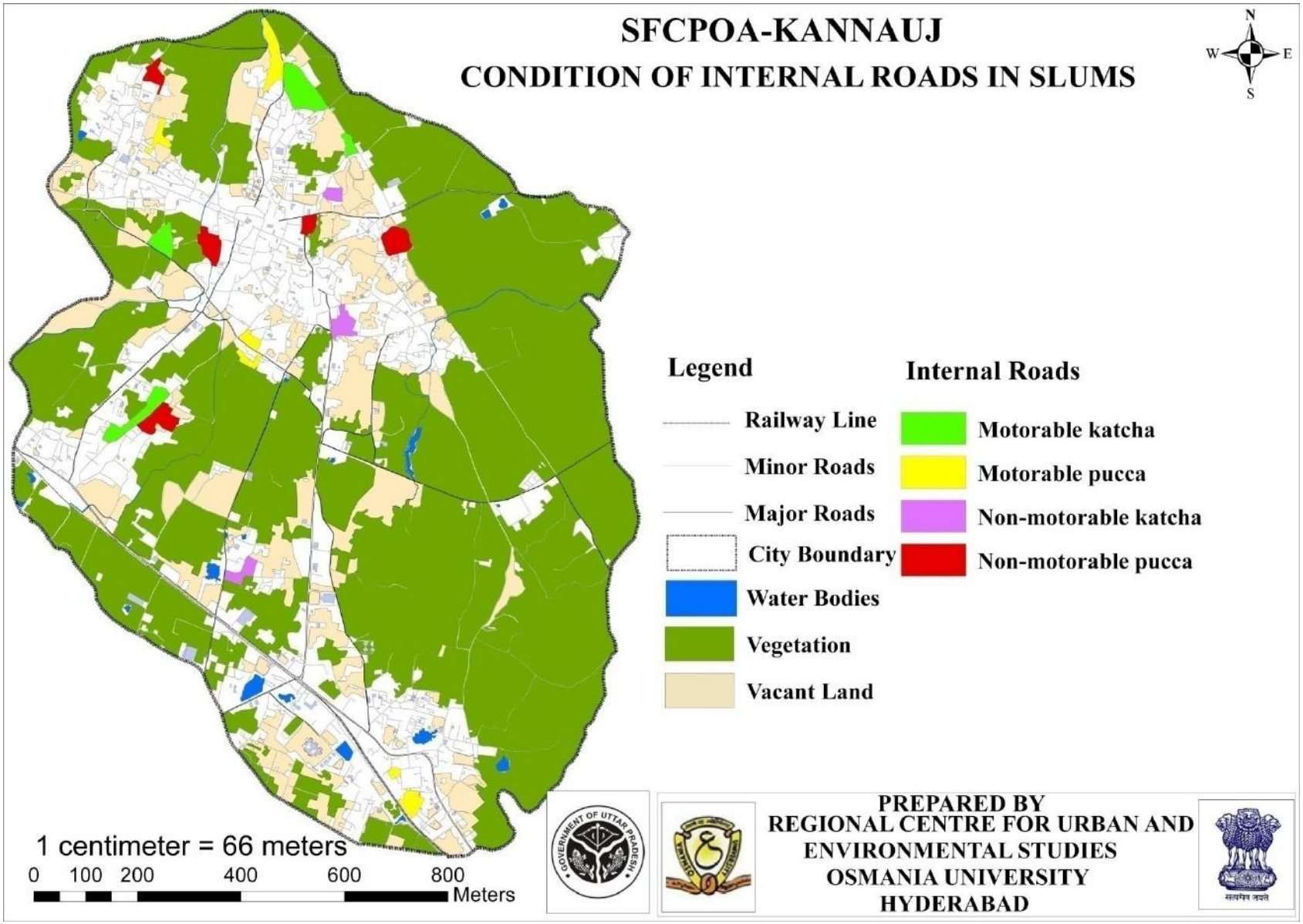
***Source*:** RAY Primary Survey, 2013

a. Nature of Approach Roads

By and large, 88% of slums in the city are provided /connected with Motorable Pucca roads, 6% of the slums are Motorable kutcha and 6% are connected with approach roads being Non-Motorable pucca in nature. There is a need to upgrade these roads.

b. Distance from nearest Motorable road

100% of the slums have access to the nearest Motorable road within 0.5 Km.



Map 3-14 : Condition of Internal roads in slums

Picture 3-17 : Motorable katcha approach road to Mubarak puttia slum

Picture 3-18 : Motorable pucca approach road to Mousampur alhat slum

Picture 3-19 : Non Motorable Katcha internal road in Mubarak puttia

Picture 3-20 : Non-motorable pucca internal road in Kacheritola slum

Picture 3-21 : Non Motorable katcha internal road in kazi pura

Picture 3-22 : Non motorable pucca internal road in Kazitola slum

c. Type of Internal road

In respect to internal roads in the slums, 41% of the slums have Motorable Pucca internal roads while 18% have kutcha internal roads. Around 41% of the slums lack in proper internal roads with BT surface. The *Map 3-14* shows the type of internal road provided to the slums.

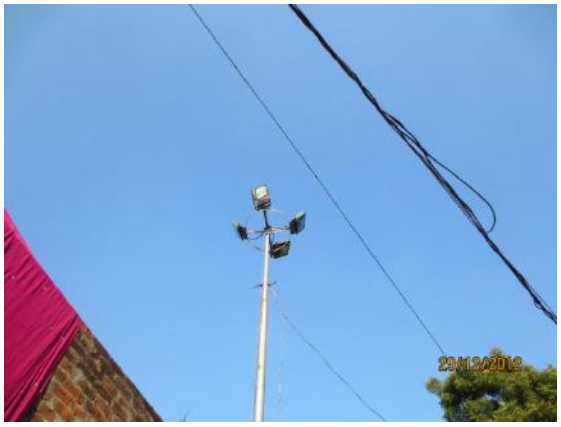
3.6.5 Street Lighting Facility

Table 3-10 : Availability of Street lighting Facility

	No. of Slums
AVAILABILTY OF STREET LIGHTING FACILITY IN SLUM	
Yes	16
No	1

***Source*:** RAY primary survey, 2013

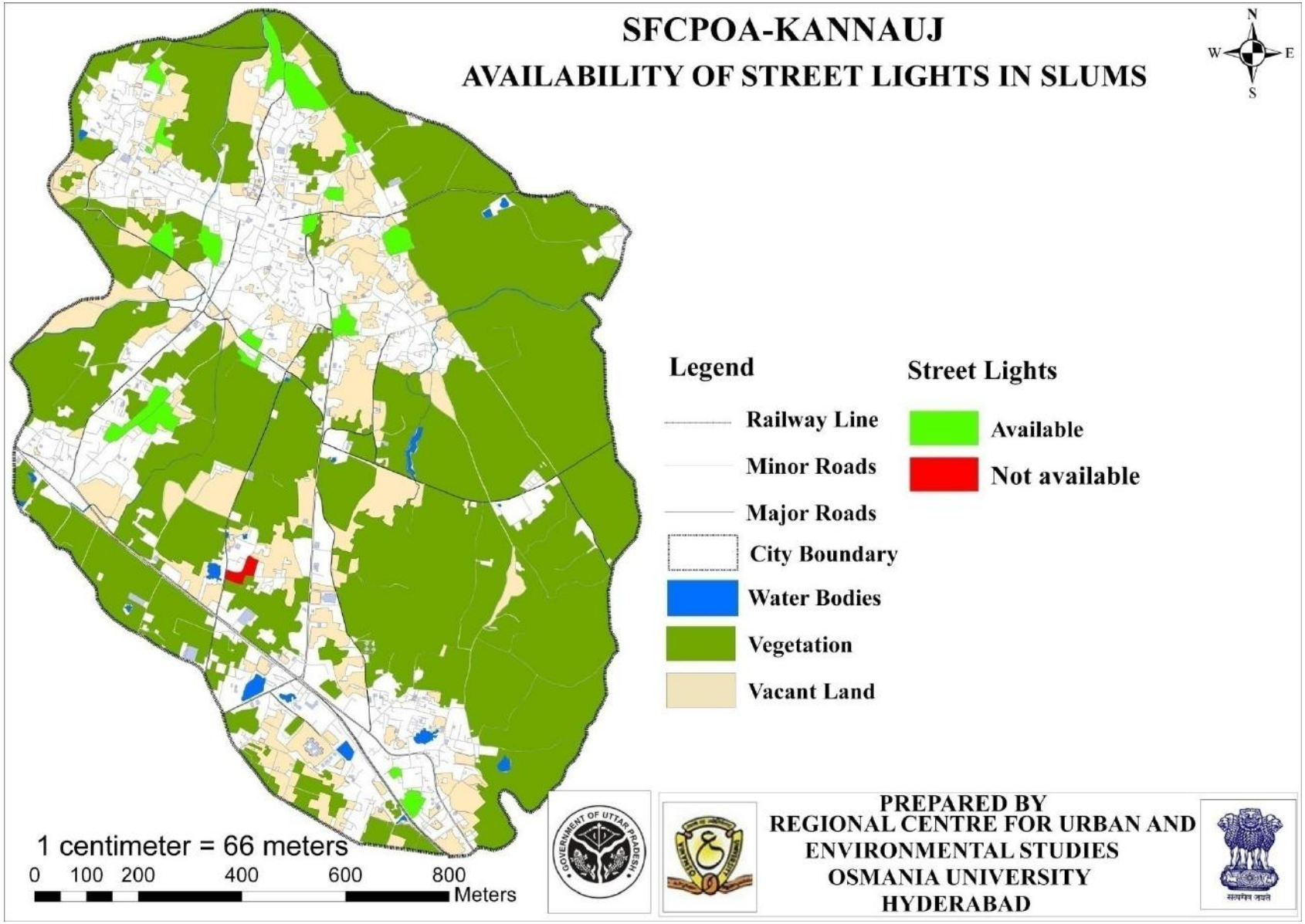
According to NBO Annexure -1 survey, 94% of the slums have street lighting facilities, not all of which are in working condition and found to be insufficient. For the 6% of the slums, there is no street lighting facility, hence essential to for security, to prevent any kind of accidents and other inconveniences.



Picture 3-23: Street light in Lodh puri slum

Picture 3-24: Street light in Shake pura slum

For slum wise details, please refer **Annexure-1F** on **Roads & Street lights.**



Map 3-15 : Availability of Street light facility in slums

3.7 SOCIAL INFRASTRUCTURE

The quality of life in any urban centre depends upon the availability of and accessibility to quality social infrastructure. Development of social infrastructure includes education, health, social welfare, livelihood centers and recreational facilities, instrumental in contributing to substantial improvements in physical quality of life, which in turn, initiates and accelerates economic development in a city. The following are a list of elements that forms the social infrastructure:

- Educational facilities
- Health facilities
- Community halls & rooms
- Livelihood centers
- Youth centers
- Social welfare facilities
- Old age homes
- Night shelter
- Parks
- Public utilities such as fire services

Following section details out the current level of social infrastructure available to the slum households.

3.7.1 Education facilities

Table 3-11 : Distance of the slums from the nearest Anganwadi and Pre-primary schools

Distance	Within the slum	< 0.5KM	0.5 to 1.0 KM	1.0-2.0 KM	More than 2 Km
Pre- Primary Schools (Anganwadi)					
No of slums	15	1	0	0	1
Pre- Primary Schools (Municipal)					
No of slums	0	0	0	0	0
Pre- Primary Schools (Private)					
No of slums	2	2	0	1	12

***Source*:** RAY primary survey, 2013

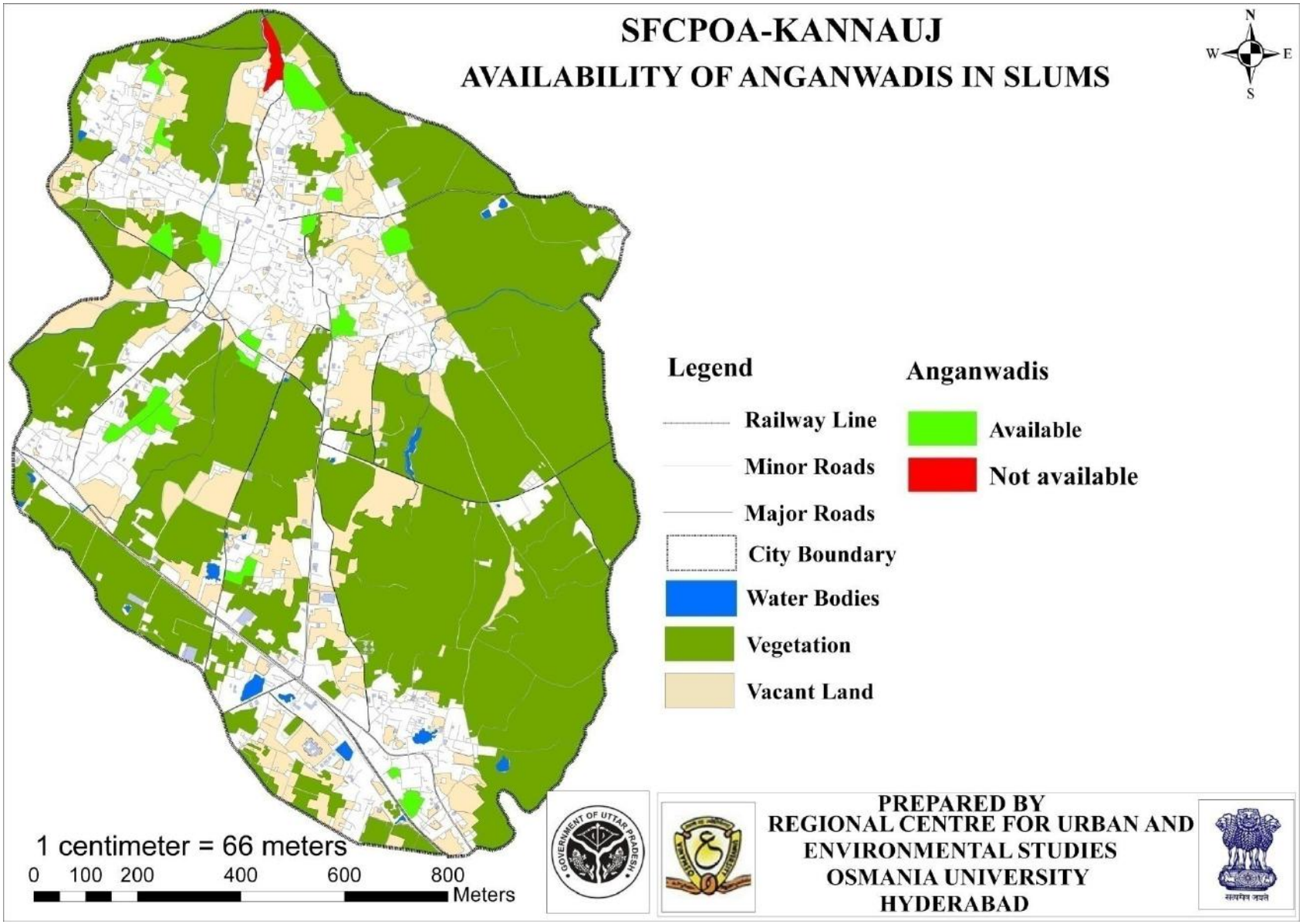
Anganwadi is a part of the Indian public health care system. The responsibility of Anganwadi workers includes basic health care activities like contraceptive counseling and supply, nutrition education and supplementation, as well as pre-school activities. The access to Anganwadi is very essential especially in places like slums where children, pregnant women suffer with lack of proper nutritional diet. As indicated in *Table 3-11*, about 88% of slums have Anganwadi facility within the slum. For about 6% of slums the facility is located within a reachable distance of 0.5 kms. For the remaining 6% of slums the facility is located at a distance of more than 2 kms. A part from the Anganwadis, the pre-primary schools were found in some slums run by private people.

Table 3-12 : Distance of slums from the nearest Primary and High schools

Distance	Within the slum area	< 0.5KM	0.5 to 1.0 KM	1.0-2.0 KM	More than 2 Km
Primary Schools (Municipal)					
No of slums	0	0	0	0	0
Primary Schools (State govt.)					
No of slums	1	8	3	2	3
Primary Schools (Private)					
No of slums	0	8	1	1	7
High Schools (Municipal)					
No of slums	0	0	0	0	0
High Schools (State govt.)					
No of slums	1	4	5	2	5
High Schools (Private)					
No of slums	0	1	0	2	14

***Source*:** RAY Primary Survey, 2013

As shown in *Table 3-12*, in 14 slums the primary schools run by state government are located within distance of 2km. The majority of the slums have access to primary schools run by state government within a distance of 0.5 km. A part from primary schools run by state government, the slums have access to primary schools run by private people. In the same line, in the 12 slums have access to high schools run by state government with in a considerable distance of less than 2 Kms. In Kannauj the municipality does not run any type of educational institutions.



Map 3-16 : Availability of Anganwadis in slums

3.7.2 Health facilities

Majority of the health problems in urban slums stem from lack of access to or demand for basic amenities. Basic service provisions are either absent or inadequate in slums. Lack of drinking water, clean, sanitary environment and adequate housing and garbage disposal pose series of threats to the health of slum dwellers, women and children in particular, as they spend most of their time in and around the unhygienic environment. Inadequate nutritional intake due to non-availability of subsidized ration or availability of poor quality to ration makes the slum dwellers prone to large number of infections and lack of education or information, further aggravates the situation.

Table 3-13 : Distance of slums from the nearest health facilities

Distance	Within the slum area	< 0.5KM	0.5 to 1.0 KM	1.0-2.0 KM	More than > 2.0 Km
Urban Health Post					
No. of Slums	1	3	4	7	2
Primary Health Centre					
No. of Slums	0	0	6	10	1
Government Hospital					
No. of Slums	0	0	4	10	3
Maternity Centre					
No. of Slums	0	0	3	11	3
Private Clinic					
No. of Slums	2	9	4	0	2
Registered Medical Practitioner (RMP)					
No. of Slums	1	1	0	0	15
Ayurvedic Doctor/Vaidhya					
No. of Slums	0	0	0	4	13

***Source*:** RAY primary survey, 2013

As per NBO Annexure –1 data, all the slums have health care facilities within accessible distance of 2 Kms, 94% of slums have primary health centre, 82% of the slums have Government Hospital and 88% of slums have urban health post. For about 88% of slums the private clinics are situated at an accessible distance. Health as well as medical facilities is provided and is serving the ailing people belonging to the slum areas item wise particulars are shown in *Table 3-13.*

3.7.3 Social welfare facilities

Similar to the above sections in social infrastructure, the following *Table 3-14* presents availability of social welfare facilities in 17 slums:

Table 3-14 : Availability of Social Welfare facilities in slums

Availability of Facilities within Slum	No. of Slums
Community Hall	1
Livelihood/Production Centre	0
Vocational training/Training-cum-production Centre	0
Street Children Rehabilitation Centre	0
Night Shelter	0
Old Age Home	0
Social Welfare Facilities	**No. of Holders**
Old Age Pensions (No. of Holders)	104
Widow Pensions (No. of Holders)	57
Disabled Pensions (No. of Holders)	15
General Insurance (No. covered)	1
Health Insurance (No. covered)	7
Self Help Groups/DWCUA Groups in Slum	3
Thrift and Credit Societies in Slum	4
Slum-dwellers Association	**No. of Slums**
Yes	0
No	17
Youth Associations	0
Women's Associations/ Mahila Samithis	22

***Source*:** RAY primary survey, 2013

The community hall is available only in ***Mosampur alahat*** slum. The Self Groups/DWCUA groups are formed only in 2 slums with 3 groups. In 17 slums, 4 thrift and credit societies are formed.

For slum wise details, please refer **Annexure-1F** for **Social Infrastructure**

CHAPTER 4 – SLUM REHABILITATION STRATEGY

4.1 REHABILITATION STRATEGY

The major factors that influence the design of upgrading programs are scale of the problem, the severity of conditions, tenure, and relevant support for social and economic development, community participation, the institutional framework, the financial structure, political will, and good governance. As part of community up-gradation, there are factors that need to be considered in the planning and implementation of initiatives. Most of the up-gradation programmes undertaken throughout the world are one of three types: provision of *basic infrastructure to the community, tenure security, and comprehensive up-gradation*. The appropriateness of their use is driven by the status of existing conditions in the slums.

First component is the provision of basic infrastructure to the community. Improvement of basic services is necessary when the environmental conditions and physical infrastructure are poor, but tenure is relatively secure. For improving the services, both the physical and social infrastructure elements such as sanitation, water supply, drainage, and often some community facilities are taken into account. This type of program tends to cost less per capita than more complex programs. The improvements can be financed easily by a program like RAY.

The second component is the incremental buildup of tenure security when the land tenure status is found to be insecure. In these circumstances, lack of tenure is a threat to the security of livelihoods, and a significant barrier to households investing in upgrading their own homes. The threat of forced evictions also looms over such settlements. In such cases rapid tenure regularization may lead to increased land values and, as a consequence, market driven displacement of beneficiaries. An incremental approach based on a 'continuum of land rights' and flexible tenure arrangements would be recommended. Temporary occupancy rights, lease agreements, possession rights, anti-eviction rights are among flexible and effective tenure systems that do not place unrealistic demands on local governments with weak resources, do not disrupt municipal land markets, and provide beneficiaries with adequate and incremental security of tenure. When and where it becomes appropriate and affordable, lot titling through the sale or allotment of land should be considered as a way of providing the strongest form of tenure security.

The third type of upgrading program – a mixture of the previous two – is comprehensive upgrading. It combines both provision of basic infrastructure and tenure security. It is appropriate where environmental conditions and physical infrastructure is poor, where population densities are high, and where tenure is insecure.

The comprehensive upgrading program is relatively complex and time-consuming because it has more administrative requirements, implicates more stakeholders, and depends on greater community involvement.

In order to best apply RAY objectives and create Kannauj a Slum free city, an imperative slum rehabilitation strategy would be necessary depending on the expected outcomes from the findings or analysis of existing slum situation of a city.

The rehabilitation strategy comprises of several components such as:

- Physical targets – relocation, in-situ and up gradation
- Law and legislation for slum dwellers
- Stakeholder/ community participation
- Financial framework
- Institutional mechanism

The following flowchart details the rehabilitation proposed for Slum free Kannauj.

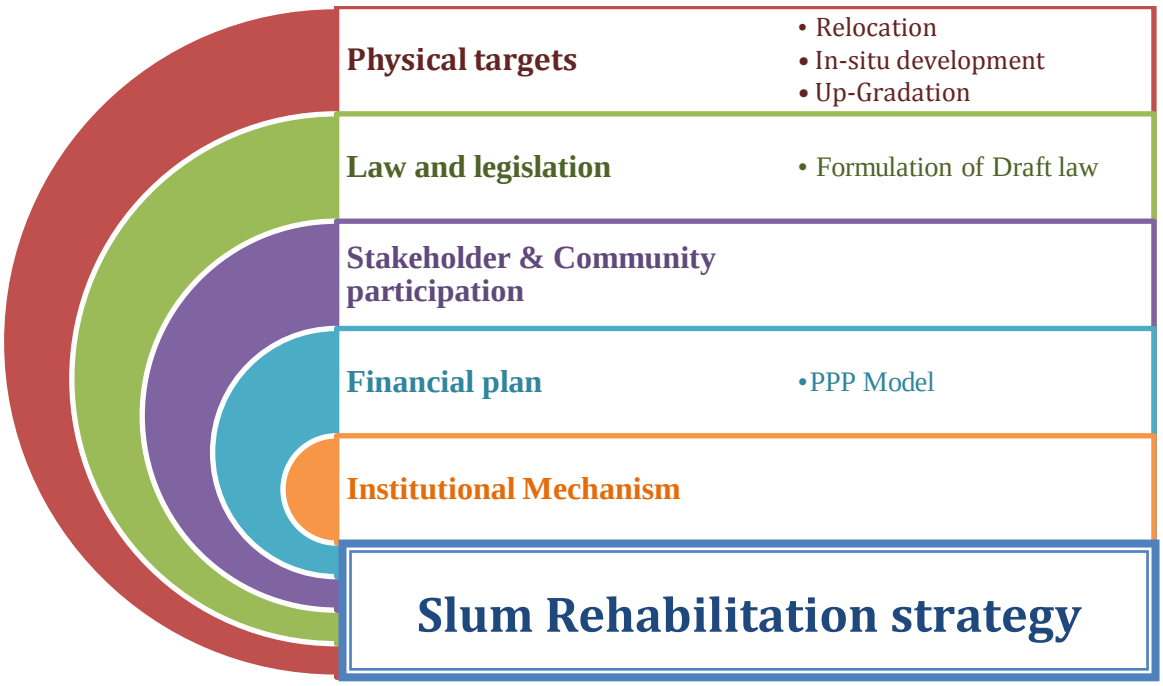


Chart 4-1 : Components of Slum Rehabilitation strategy

4.1.1 Physical Targets

For the slum rehabilitation, the top most priority would be given to the redevelopment/ rehabilitation of identified slums and measures to prevent future slums. The following three options of redevelopment that will be categorized based housing tenure, tenability, physical location, density and ownership:

a. Relocation mode

- Depending on the physical location of slums such as hazardous sites and environmental conditions and where there is no alternative
- Involves communities in identification of alternative sites
- Ensures that education, health, transport, basic services and infrastructure and provided before relocation

b. In situ mode

- Involves redevelopment of whole site to provide more living space and improved environmental conditions such as those in high density areas.
- Provision of transit accommodation and including of all residents, especially the extremely poor critical to success

- In this mode, new mixed-use mixed income communities can be created with a viable cross-subsidy model, which is a function of local land values, socio-economic needs and general context of the area.

c. Slum Up-gradation

- Involves a mixture of provision or upgrading of service and infrastructure levels, incremental housing improvements or selective replacement of katcha houses.

4.1.2 Law and Legislation

An appropriate legislation is a necessity to achieve and implement the development strategies formulated for Slum Free Kannauj. RAY promises a secured housing, provision of urban basic services helps the slums to become "slum free" through rehabilitation strategy. Legislation forms an important tool for Government to assign property rights, provide basic services and achieve the holistic mission of RAY. Hence, suitable implementable and customized legislation forms an integral part of Slum rehabilitation strategy.

a. Stakeholder/ community participation

It has been proved by several previous schemes for slum development that community /stakeholder participation is a key aspect in implementing rehabilitation strategy to achieve Slum Free Kannauj. Community Participation calls for a strong and active participatory chain which would be involved throughout the implementation of RAY starting from surveys until project implementation and monitoring. This particular strategy would actually make the slum dwellers realize the motive behind the programme as an opportunity to raise their standard of living, achieve higher dignity and provide better facilities for present as well as future families. Community participation strategy is a promising bridge between the governments and the beneficiaries to understand the mutual benefits of the programme.

b. Financial framework

RAY has posed a significant challenge to the state, ULB and beneficiaries by announcing its 50% contribution towards the project. This calls for development of exclusive financial development strategy to meet the remaining 50% finances through various sources and mechanism. The alternatives as proposed by Govt. of India.

The development strategy has been finalized after careful observations/scores that have been evolved through derived matrix preparation according to the Govt. of India guidelines. The strategy would enable the most needed slums to be taken care in first year in a strategic manner and continue to do so in the coming five years. The strategically financial framework would enable the project implementation smoothly without any finance hurdle.

c. Institutional mechanism

RAY is a challenging task right from policy making until project implementation and monitoring. However the city should comprise of several teams which have to be coordinated within each other and successfully channelize step by step. The roles vary from Center, State, ULB, Slum clearance boards, RAY technical cell, NGOs and other associated agencies. The city should be able to actively involve the various agencies with various tasks as the programme advances yearly. There has to be hiring done at necessary levels/positions

to complete coordination cycle. Hence institutional mechanism enables and proves to be a significant strategy for slum rehabilitation.

It is a necessary exercise to assess the existing slums to propose for a development strategy. A matrix analysis was prepared for Kannauj slums to identify the level of urban services. The matrix details the infrastructure and housing services among the slums.

4.1.3 Infrastructure Deficiency and Vulnerability Matrix

According to RAY guidelines, an infrastructure deficiency and vulnerable matrix the existing slums is to be prepared using the scoring and ranking method. The matrix is based on three important parameters: Housing, Infrastructure, BPL, SC/ST population. Within these, Housing and Infrastructure are the physical parameters that are directly related to the existing quality of the housing condition.

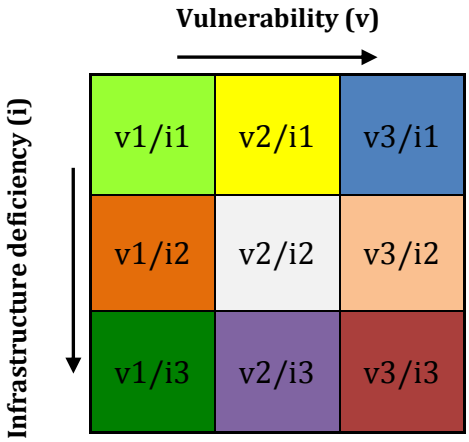


Figure 4-1 : Model Infrastructure Deficiency and Vulnerability Matrix

For evaluating infrastructure deficiency and vulnerability the following parameters are considered:

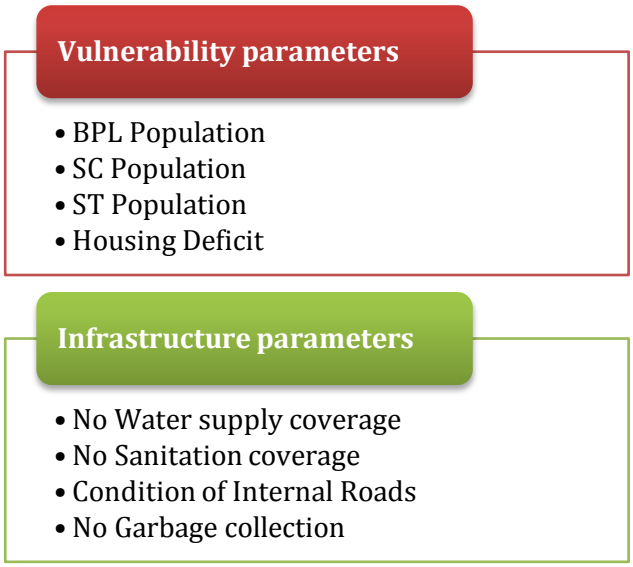
Infrastructure deficiency parameters:

i. Percentage of households not covered with piped water supply
ii. Percentage of households not covered with individual toilets
iii. Percentage deficiency of condition of internal roads
iv. Percentage of households without access to facilities of disposal of solid waste.

Vulnerability Parameters

i. Housing condition based on structural condition (Pucca, Semi-Pucca and Katcha)
ii. Below the poverty line (BPL) Population, SC/ST population

The scoring is provided to all the slums by comparing the infrastructure deficiency and vulnerability parameters against the same criteria. The average scores for vulnerability and infrastructure are determined separately and clustered into different ranges representing the worst, average and best slum settlements. For that 5 percentage ranges from 100 to 0 with an interval of 20 is considered and the scores were provided accordingly and represented in the matrix.



Percentage range	Score
81 - 100	1
61 - 80	2
41 - 60	3
21 - 40	4
0 - 20	5

Chart 4-2 : Vulnerability and Infrastructure deficiency parameters

Based on the above individual scores, a final composite score for each slum is calculated using the parameters infrastructure and vulnerability. Once the score is obtained, the slums are then classified into:

- Least vulnerable and Good Infrastructure
- Least vulnerable with moderate infrastructure
- Least vulnerable with bad infrastructure
- Moderate vulnerable with Good Infrastructure
- Moderate vulnerable with Moderate Infrastructure
- Moderate vulnerable with Bad Infrastructure
- Most vulnerable with Good Infrastructure
- Most vulnerable with Moderate Infrastructure
- Most vulnerable with Bad Infrastructure

4.2 SLUM CATEGORIZATION

The Categorization of Slums is done based on the scoring and ranking method where certain parameters are taken into account to identify the deficiencies and make suitable decisions. The three important parameters that play equal role in determining the slums that are deficient are **Housing, Infrastructure and Tenure status**. In this section, the following parameters such as ***Tenability, Abutting Land use, Tenure status, Ownership of the land, density and land value*** *are being discussed.*

4.2.1 Tenability

As a first step, the slums and vacant lands will be categorized as tenable, semi-tenable or untenable. Untenable slums will be only those which are 'unsafe' or 'health hazard' to the inhabitants or to their neighborhoods, even if redeveloped. Such untenable sites or portions will be earmarked for relocation to other redevelopment/vacant sites, preferably within the same zone.

Table 4-1 : Categorization of slums based on tenability

Status	Tenable	Semi - Tenable	Un- Tenable
No of Slums	17	0	0

Of 17 slums in the city, all are Tenable, due to surrounding residential land uses. In order to make these slums tenable it is recommended to change the present land use zoning, however it will be decided by competent authority.

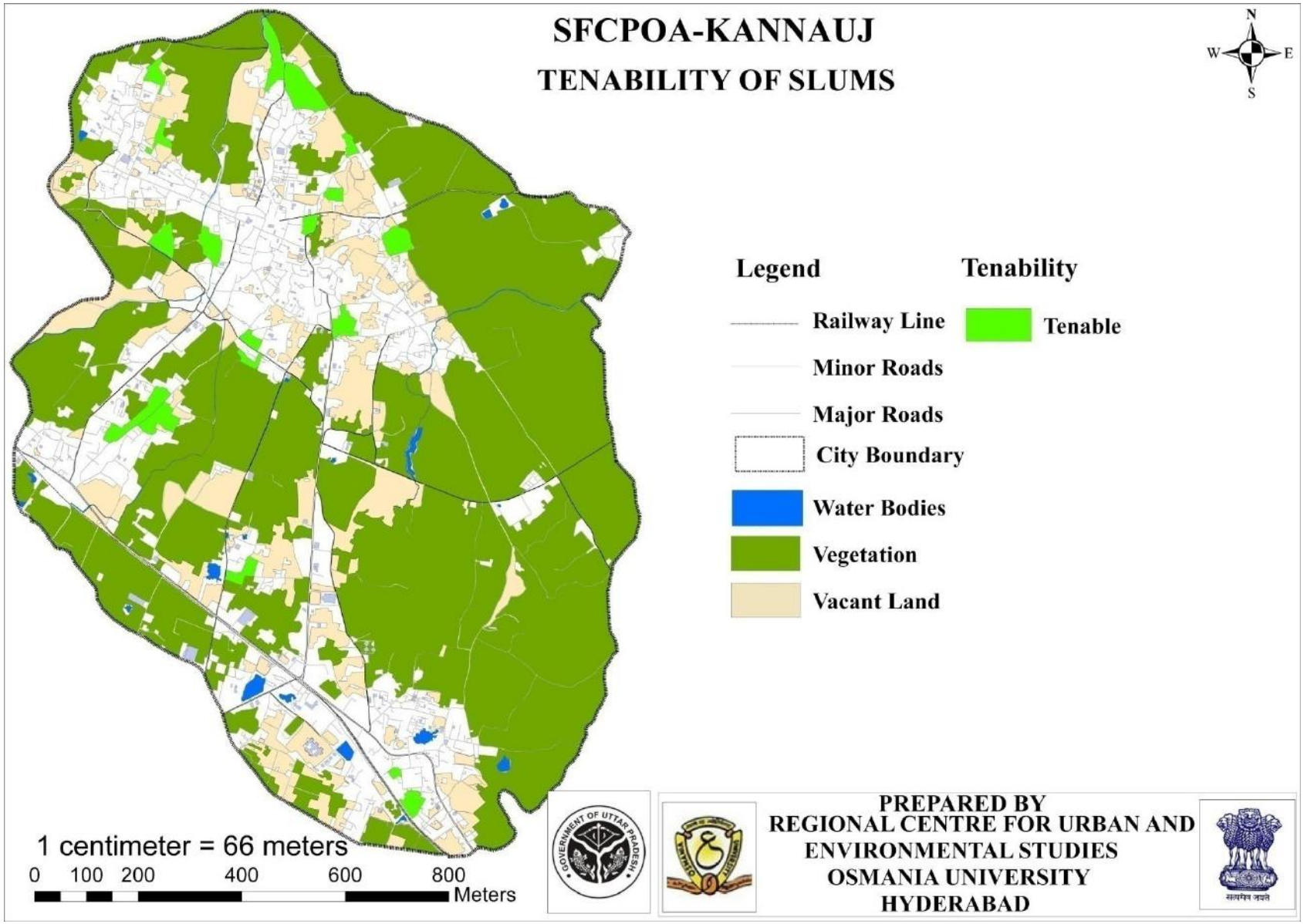
For visual illustration of tenability analysis of slums, please refer *Map 4-1* and for slum wise details refer **Annexure – 1A**

4.2.2 Abutting Land use

Table 4-2 : Categorization of slums based on abutting status

Abutting Land use	No. of slums	No. of Households	% of slums to the total slums	% of slum households to the total slum households
Residential	17	1920	100%	100%
Industrial	0	0	0%	0%
Commercial	0	0	0%	0%
Institutional	0	0	0%	0%
Others	0	0	0%	0%
Total	17	1920		

From the above *Table 4-2*, it is established that 100% of the households are situated in the areas surrounded by the residential use. To identify vacant lands for slum rehabilitation and prevention, the information to be procured is of vital importance to enable further classification of the slums based upon land value and to decide upon redevelopment models for each slum pocket.



Map 4-1 : Categorization of slums based on Tenability

4.2.3 Land tenure of slums

The categorization based on land ownership of slums can be used in assigning strategies for development and priorities for implementation under various strategies for development. The following *Table 4-3:* classifies the legal status of the slum households based on the ownership and land tenure status.

Table 4-3 : Categorization of dwelling units in slums based on Land tenure status

Land tenure Status	Pattas	Possession certificate	Encroached public land	Encroached private land	On Rent	Others
No. of Dwelling units	2	1589	6	3	17	2

As shown in the *Table 4-3*, about 98% of the slum households are registered with possession certificates and pattas for their respective lands. On the contrary, 1% of slum dwellers reside on rented lands. 1% of slums are encroached on public and private lands.

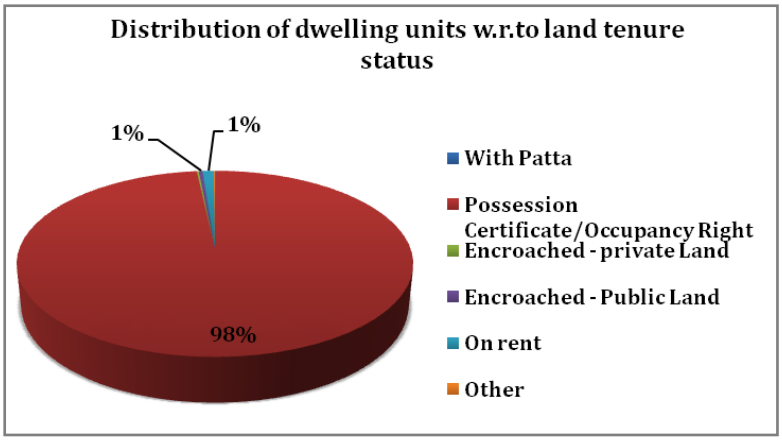


Figure 4-2 : Distribution of dwelling units in slums w.r.to land tenure status

4.2.4 Ownership of Land

The categorization based on land ownership of slums can be used in assigning strategies for development and priorities for implementation under various strategies for development. The following *Table 4-4* classifies the legal status of the slum households based on the ownership and land tenure status.

Table 4-4 : Categorization of dwelling units based on ownership of land in slums

Ownership of Land/ Land tenure (No. of DU's)		ULB	State government	Private
Registered	Pattas	0	0	2
	Possession certificate	295	223	1071
Un - Registered	Encroached	7	0	2
	On Rent	6	0	11
	Others	1	0	1

About 98% of households in the slums have registered patta or possession certificate to prove their legal status of land. While the remaining 2% of slum households are situated on land either encroached or residing in house on rental basis. In slums situated purely on private ownership of land, 67% of dwelling units are registered.

Table 4-5 : Categorization of slums based of land ownership

Ownership of Land / Legal Status	Local Body	State government	Private
Non notified (No of Slums)	3	2	12

Out of 17 slums in the city all are Non-notified slums. About 3 slums located under local body, 71% of slums i.e., 12 slums are situated on private lands and 2 slums i.e., ***Akbarpur saraya ghag*** and ***Mosampur alahat*** are situated on land belongs to state government.
(Refer *Map 3-3* for location of slums in the city and Annexure -1B for slum wise ownership of land details).

4.2.5 Dwelling unit Density

In this context, due consideration is given to existing density of each slum pocket in order to propose a suitable development option. Based on assessment of existing slum data analysis, the classification of the slums is based on the values of density where:

- **Low** where density is less than 350 dwelling unit per hectare
- **Medium** where density ranges from 350- 500 dwelling unit per hectare
- **High** where density is greater than 500 dwelling unit per hectare

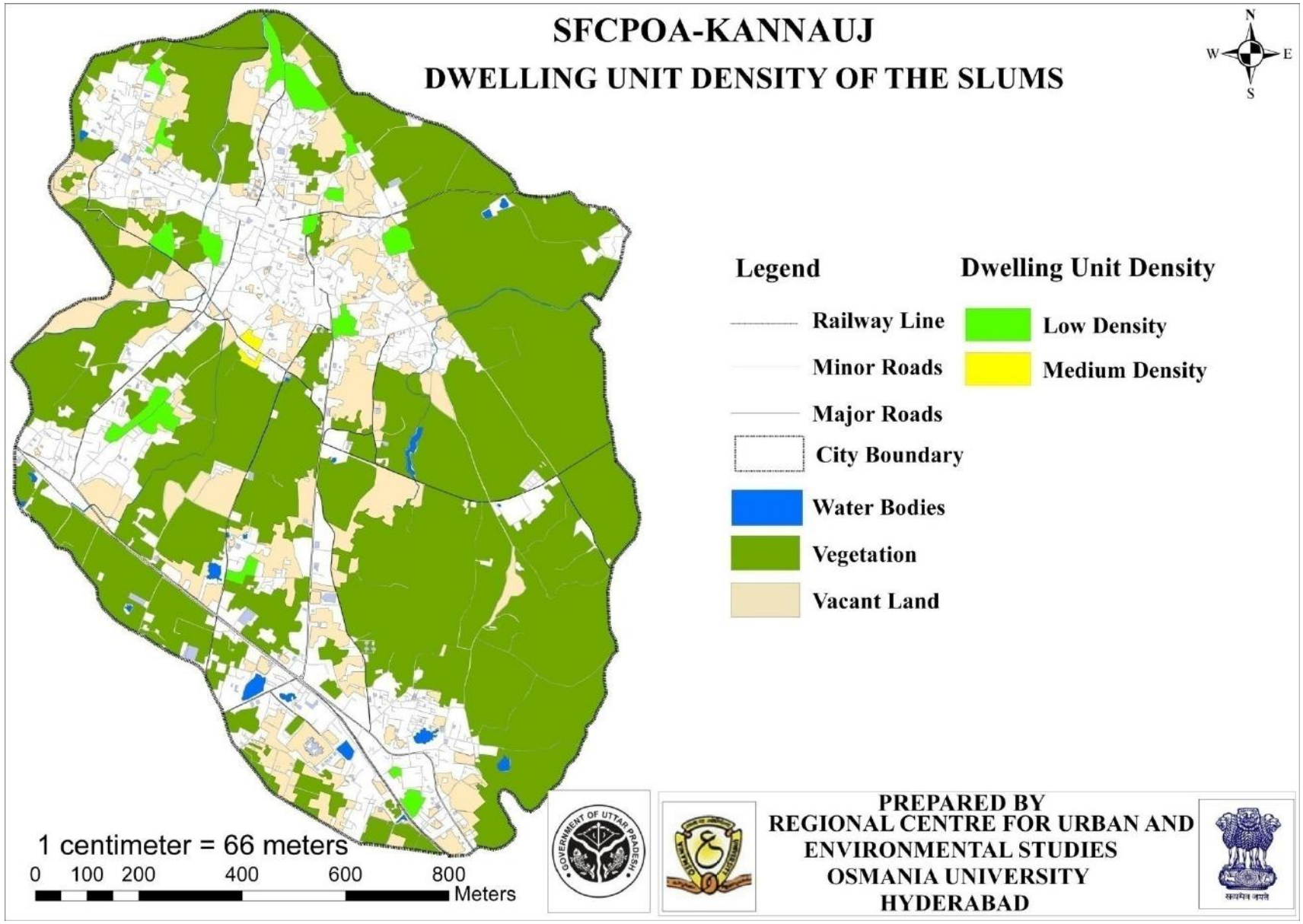
The following *Table 4-6*; presents the mode of development and additional accommodation of density for the slums based on its classification:

Table 4-6 : Categorization of slums based Dwelling unit density of slums

Mode of Development (No. of Slums)	Low Density	Medium Density	High Density	Total
Relocation	0	0	0	**0**
In - Situ development	7	1	0	**8**
Up gradation	9	0	0	**9**
Total No. of Slums	**16**	**1**	**0**	**17**

As per the analysis, it is found that 16 slums have low density while only one slum i.e., ***Mosampur Alahat*** (434 Du/Ha) has Medium density. Out of 17 slums in the city, 9 were proposed for up gradation mode of development and remaining 8 slums for In-situ development. The ***Mosampur Alahat*** slum which is having Medium density of dwelling units is proposed for up-gradation mode of development. In low dwelling unit density slums, out of 16 slums, 7 slums are proposed for In-situ development and the remaining for up-gradation.

For slum wise details please refer **Annexure-2D**



Map 4-2 : Dwelling unit density map of slums

4.2.6 Land value

For Kannauj City, the land values will be determined with reference to the slum and it is case specific and based on the mode of development, which will be calculated during preparation of DPR. At this is stage, it might be difficult to determine the land value as it is expected to vary in concord with market rate.

4.3 SLUM REHABILITATION FRAMEWORK

According to RAY guidelines, analysis and prioritization of housing condition, infrastructure deficiency and vulnerability of slum settlements is evaluated based on scoring and ranking method. The matrix is based on two parameters: Infrastructure deficiency and Vulnerability. Apart from these parameters the housing condition, Land Tenure, slum Tenability, land Ownership, Demography, Employment etc., and were considered.

4.3.1 Observations / Findings of Analysis of Existing Situation

a. Housing

- 53% of the slums have been into existence for more than 75 years in the city with old-fashioned infrastructure
- 4 slums are situated along the major storm water drains and 1 slums is located along railway line and remaining 12 are on Non hazardous/Non objectionable sites.
- Even though 27% of the total houses are Pucca in nature, a significant portion of them are found to be in bad condition. 73% of the houses are Semi pucca& Katcha in nature making them vulnerable to any kind of disaster.
- In respect to electricity connections, nearly 60% of the total houses do not have access to electricity.

b. Demography & Employment

- Nearly 8% of the total slum population is living under below poverty line (BPL) accounting 151 households.
- About 89% of the slum population belongs to back ward social communities (OBC &SC).
- About 11% of the slum population belongs to minority communities constituting 10% of slum households.
- The average illiteracy among slum residents is only 50% where the male illiteracy rate is observed to be very less.
- It is found that 18% of the households are earning an average income of less than ₹1500 per month. Majority of the slum dwellers derive their livelihood as working labor, street vending, domestic helpers etc.,

4.3.2 Infrastructure

a. Water Supply

Table 4-7 : Water Supply Details

WATER SUPPLY			
	Non Notified		% HH's out of total Households
	No of slums	No of HH's	
Connectivity to water supply			
Fully connected	13	1583	**83%**
Partially connected	2	219	**11%**
Not connected	2	118	**6%**
Total	**17**	**1920**	
Duration of Water Supply			
daily Less than 1 hr	0	0	**0%**
daily 1-2 hrs	6	500	**26%**
Daily more than 2 hrs	11	1420	**74%**
Once a week	0	0	**0%**
Twice a week	0	0	**0%**
Not regular	0	0	**0%**
No Supply	0	0	**0%**
Total	**17**	**1920**	
Source of Drinking Water			
Individual tap	14	698	**36%**
Public tap	15	418	**22%**
Tube wells/Bore well/hand pump	17	669	**35%**
Open well	3	3	**0%**
Tank/pond	1	1	**0%**
River/canal/lake/spring	0	0	**0%**
Others	8	131	**7%**
Water tanker	0	0	**0%**
Total		**1920**	

- Out of 17 slums in the city, 13 slums were either fully connected, 2 slums partially connected with city wide trunk water supply system. The remaining 2 slums, which account about 6% of households, are not connected with city wide trunk water supply system.
- About 36% of slum households have access to individual tap connections as primary source of water supply and the remaining 64 % are dependent on public taps, tube wells, open wells, hand pump, well etc., These households need to be addressed for provision of individual taps.

b. Sanitation

Table 4-8 : Sanitation Details

SANITATION			
	No of slums	**No of HH's**	**% HH's out of total Households**
Connectivity to wide Sewerage system			
Fully Connected	0	0	**0%**
Partially Connected	0	0	**0%**
Not Connected	17	1920	**100%**
Total	**17**	**1920**	
Connectivity to Storm water Drainage			
Fully Connected	15	1781	**93%**
Partially Connected	1	84	**4%**
Not Connected	1	55	**3%**
Total	**17**	**1920**	
Latrine Facilities			
Public/Community latrine- Septic tank/flush	0	0	**0%**
Public/ Community latrine- Service latrine	0	0	**0%**
Public/ Community latrine-Pit	0	0	**0%**
Shared latrine -Septic tank/flush/	0	0	**0%**
Shared latrine- Service latrine	0	0	**0%**
Shared latrine-Pit	0	0	**0%**
Own latrine -Septic tank/flush/	16	471	**24%**
Own latrine- Service latrine	0	0	**0%**
Own Latrine-Pit	10	145	**8%**
Open Defecation	17	1304	**68%**
Total		**1920**	

- 100% of the slums are not connected to city wide sewerage system. Hence there is a deficiency in overall sewerage system which needs to be upgraded to a complete as well as sustainable underground drainage system.

- With regards to storm water drainage, 16 slums are connected & only one slum does not have connectivity to city wide Storm water system.

- Around 68% of slum households do not have proper individual toilet system, hence resulting in open defecation.

c. Solid waste management

Table 4-9 : Solid Waste Management Details

SOLID WASTE MANAGEMENT		
	No of slums	**% of slums**
Arrangement of Garbage Disposal		
Municipal Staff	17	**100%**
Municipal Contractor	0	**0%**
Residents themselves	0	**0%**
Others	0	**0%**
No Arrangements	0	**0%**
Total	**17**	
Frequency of Garbage Disposal		
Daily	16	**94%**
Once in 2 days	0	**0%**
Once in a week	1	**6%**
Once in 15 days	0	**0%**
Not Collected	0	**0%**
Total	**17**	
Frequency of clearance of open drains		
Daily	16	**94%**
Once in 2 days	0	**0%**
Once in a week	0	**0%**
Once in 15 days	0	**0%**
Not Collected	1	**6%**
Total	**17**	

- 6% of slums are not adequately covered with solid waste disposal activity.
- In areas where there is frequent collection, the arrangement is taken care by the Municipal staff, constituting 100% (17 slums).
- 6% of the slums lack in frequent clearance of open drains, leading to further deterioration of environmental conditions and thereby contaminating the ground water quality.

d. Roads and street lighting

Table 4-10 : Roads and Street lights Details

ROAD & STREET LIGHTS		
	No. of Slums	**% Slums of total slums**
Approach Road/Lane/Constructed Path to the slum		
Motorable Pucca	15	**88%**
Motorable Katcha	1	**6%**
Non Motorable Pucca	1	**6%**
Non Motorable Katcha	0	**0%**
Total	**17**	
Internal Road		
Motorable Pucca	7	**41%**
Motorable Katcha	3	**18%**
Non Motorable Pucca	5	**29%**
Non Motorable Katcha	2	**12%**
Total	**17**	
Distance from Nearest Motorable Road		
Less than 0.5 Km	17	**100%**
0.5-1 Km	0	**0%**
1-2 Km	0	**0%**
2-5Km	0	**0%**
>5 Km	0	**0%**
Total	**17**	
Availability of Street Lighting		
Yes	16	**94%**
No	1	**6%**
Total	**17**	

- 88% of slums have Motorable Pucca roads and 12% of slums have Motorable katcha and non-Motorable katcha roads, which needs to be upgraded.
- 59% of slums lack in proper internal roads with BT surface.
- In case of street lighting, 94% of slums have Street lights and 6% lack in street lighting facility, hence essential for security to prevent any kind of accidents and other inconveniences.

4.3.3 Slum Deficiency Matrix & Development Options

With reference to process for generating deficiency matrix (refer Chapter 4.1.3) and based on the data analysis, 17 slums in Kannauj City have been categorized based infrastructure deficiency and vulnerability. Based on this, the existing condition of slums is assessed in the following way:

The following matrix presents the Infrastructure deficiency and vulnerability status of slums

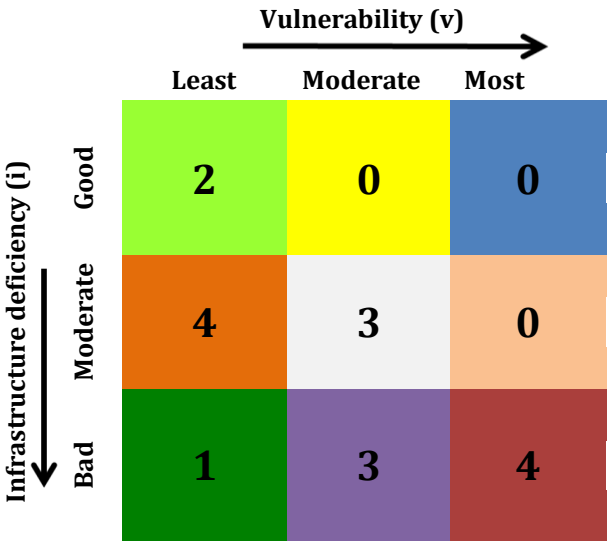


Figure 4-3 : Slum Deficiency Matrix & Development Options

The No. of slums falling under different categories is as follows:

- Least vulnerable and Good Infrastructure – 2 slums
- Least vulnerable with moderate infrastructure – 4 slums
- Least vulnerable with bad infrastructure – 1 slum
- Moderate vulnerable with Good Infrastructure – 0 slum
- Moderate vulnerable with Moderate Infrastructure – 3 slums
- Moderate vulnerable with Bad Infrastructure – 3 slums
- Most vulnerable with Good Infrastructure – No slum
- Most vulnerable with Moderate Infrastructure – No slum
- Most vulnerable with Bad Infrastructure – 4 slums

For more details please refer **Annexure 2D** for slum wise evaluation index and choice of development.

CHAPTER 5 – REQUIREMENT & INVESTMENT

5.1 PHYSICAL REQUIREMENTS

5.1.1 Housing

As seen in earlier section, the variables of tenure status, tenability, density, housing type, housing condition and age of the structure have been considered to calculate the housing deficiency and similarly for infrastructure levels. To determine the mode of development for the identified slums based on their deficiencies, following criterions has been taken into account:

Relocation of slums

- Physical location of slums - along Nallah and hazardous
- Flood prone – water logging for a month or more
- Land ownership under Local bodies : earmarked land use zones in master plan
- Slums in close proximity to High transmission lines such as 220KV.

In-situ

- Semi Pucca and katcha houses greater than 75%

Up-gradation of slums

- Semi Pucca and katcha houses less than 75%

Table 5-1 : Housing Requirements

Mode of development	Hazardous	Non-Hazardous	
		Semi-Pucca + Katcha houses More than 75%	Semi-Pucca + Katcha houses Less than 75%
	Relocation	In – Situ	Up-Gradation
No. of Slums	0	8	9
No. of Households	0	775	1145
Hosing Deficit	0	775	758
Housing Deficit	1533		

From the above *Table 5-1*, it was identified that there is a housing deficient of 1533 households in 17 slums. From development point of view, 8 slums are found to be having Semi- Pucca and Katcha houses greater than 75%, hence considered for In-Situ development while 9 slums with semi Pucca and katcha houses less than 75% for slum up gradation.

5.1.2 Infrastructure

With reference to RAY and UDPFI guidelines, additional requirement for the existing slums have been calculated for each element where the following assumptions were made in terms of:

Water supply

- For sub line running length, 98% of the total internal roads
- Raising main length = Total Households x 3m (In -Situ)
- Raising main length = Proposed taps x 3m (Up gradation)

- Proposed number of taps = Total households - Existing taps (Upgradation)
- Proposed number of taps= Total Households (In-situ)
- For every 2500 population, an overhead tank of capacity 1 lakh litre

Sanitation

- Additional length of underground sewer lines and Storm water drainage line = 80% of the total road length
- Proposed toilets = Total households - Existing individual toilets (Up gradation)

Solid waste management

- For every 30 households = 1 garbage bin

Street lighting

- For every 45 mts of road length = 1 street light/light pole

Roads

- Approach road = 2% of the total road length with width of 4.5 m
- Internal roads = 98% of the total road length with width of 3 m

The following *Table 5-2* and *5-3* presents the proposed requirements for each element of the physical and social infrastructure that needs to be implemented.

Table 5-2 : Physical Infrastructure Requirements

S. No	Sector	Services (unit)	Requirement for existing slums
1	Water supply	Running length of sub line (Km)	13.10
		Raising Main (Km)	4.45
		Individual taps (No)	1482
		Overhead water tanks (No)	0
2	Sanitation	Length of Underground Drainage/Sewer Lines (Km)	24.98
		Length of storm water Drainage Lines (Km)	4.51
		Individual toilets (No)	633
3	Solid Waste Management	Garbage dumping Bins (No)	66
4	Roads	Total length of Approach roads (Km)	0.105
		Total length of Internal roads (Km)	12.77
5	Street Lighting	Street lights (No)	485

Table 5-3 : Social Infrastructure Requirements

S.No	Sector	Services (unit)	Requirement for existing slums
1	**Education facilities**	Anganwadi (No)	0
2	**Health Facilities**	Primary Health Centre (No)	0
3	**Social development**	Community Room (No)	0
4	**Recreation & Open spaces** (Ha)		1.53

As per UDPFI Guidelines, for every 7500 population, a secondary school is required, for every 2500 population a pre-primary school and a primary school for 5000 persons has been recommended. In addition to this open space of area 1.53 Ha (15269.39sq.mts) has been proposed.

5.2 IMPLEMENTATION PLAN

A DPR would be recommended for each and every slum for implementation of slum development plan. The plan implementation and modalities would be discussed in detail through slum level community participation.

5.2.1 Prioritization of slums

Parameters for prioritization of slums for implementation of in-situ improvement / redevelopment for first phase of implementation for tenable slums are suggested below:

- **Insecure tenure of slum pockets:** Settlements without any security of tenure are most vulnerable and therefore should be given priority in selection for improvement.
- **Housing conditions and infrastructure deficiency**: Settlements with poor housing conditions and infrastructure deficiency should be given high priority for improvements.
- **Public land ownership**: Slum pockets on public sector owned land should be prioritized for improvement, as slums on private land would either require negotiations with owner or time consuming acquisition. Slum improvement/redevelopment should first be taken up where land is owned by Government agencies.
- **Dwelling unit Density**: - Priority should be given to small and medium size slums with low or moderate densities as it is difficult to improve very high density /large slums.

The total percentage is divided into 5 ranges and five (5) ranks have been given for prioritization. Then, addition of ranks for each indicator has done for all the slums. Mean from this total have been taken to prioritize slums year-wise for period of 5 years.

All the slums in the ULB are proposed to be covered under RAY in the phased manner indicated in the *Table 5-4*. As mentioned above, three different mode of development has been chosen to improve the existing slum conditions as well prevent future growth of the same. The following gives a brief of these modes and its characteristics:

Relocation

- Depending on the location and where there is no alternative

- Involves communities in identification of alternative sites
- Ensures that education, health, transport, basic services are provided before relocation

In situ

- Involves redevelopment of whole site to provide more living space and improved environmental conditions such as those in high density areas.
- Provision of transit accommodation and including of all residents, especially the extremely poor critical to success

Slum Up gradation

- Involves a mixture of provision or upgrading of service and infrastructure levels, incremental housing improvements or selective replacement of katcha houses

The following *table 5-4* gives a brief picture of the year wise phasing of development that needs to be taken up to improve the living conditions of the already existing slums for the next 5 years.

Table 5-4 : Slums to be covered under RAY in the Next 5 Years

Year of Development	No of the Slums	Mode of Development
I	0	Relocation
	2	In - Situ Development
	0	Up gradation
Total Slums	**2**	
II	0	Relocation
	4	In - Situ Development
	0	Up gradation
Total Slums	**4**	
III	0	Relocation
	1	In - Situ Development
	5	Up gradation
Total Slums	**6**	
IV	0	Relocation
	1	In - Situ Development
	3	Up gradation
Total Slums	**4**	
V	0	Relocation
	0	In - Situ Development
	1	Up gradation
Total Slums	**1**	
Total targeted Slums for 5 Years	**17**	

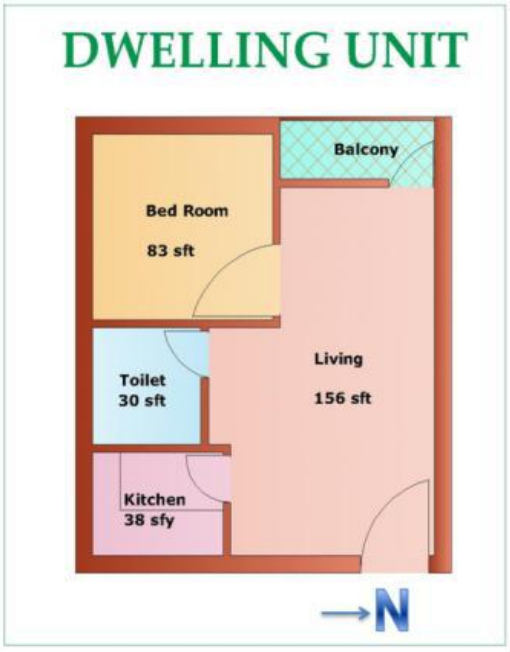
5.2.2 Proposed Model Layout

a. Housing

To make Kannauj a slum free city, there is a need to redevelop housing for **1533** households as estimated. Based on the physical location, ULB land ownership and surrounding land use, three slums have been chosen to replicate the future development and improved livelihood in terms of housing layout shown with all services. The layouts developed are in accordance with byelaws, JNNURM standards and facilitated with infrastructure services. According to Norms and Standards of Municipal Basic Services in India given by Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for Housing, each flat has a plinth area of 330.60 square feet including common area.

Proposed Layout

All proposed housing units will be facilitated with a living room, single bedroom, kitchen and toilet and with provision of 8 houses on each floor to minimize the common area. The proposed structure would consist of ground +1, with 15% ground coverage and a proposed density of 100 dwelling units per acre. The following table and plan provides a brief specification of a single unit:



COMPONENT	DIMENSION
Living room	11.63 Sq.m
Bed room	7.68 Sq. m
Kitchen	3.4 Sq.m
Bath	1.85 Sq.m
W.C	0.9 Sq.m
Passage in front of Bath & W.C	0.68 Sq.m
Total area	**26.14 Sq. m**

b. Infrastructure

Provision for individual sump tank, over head LDPE tanks and pumps with all utilities will be made available to each of the building blocks for water supply arrangement.

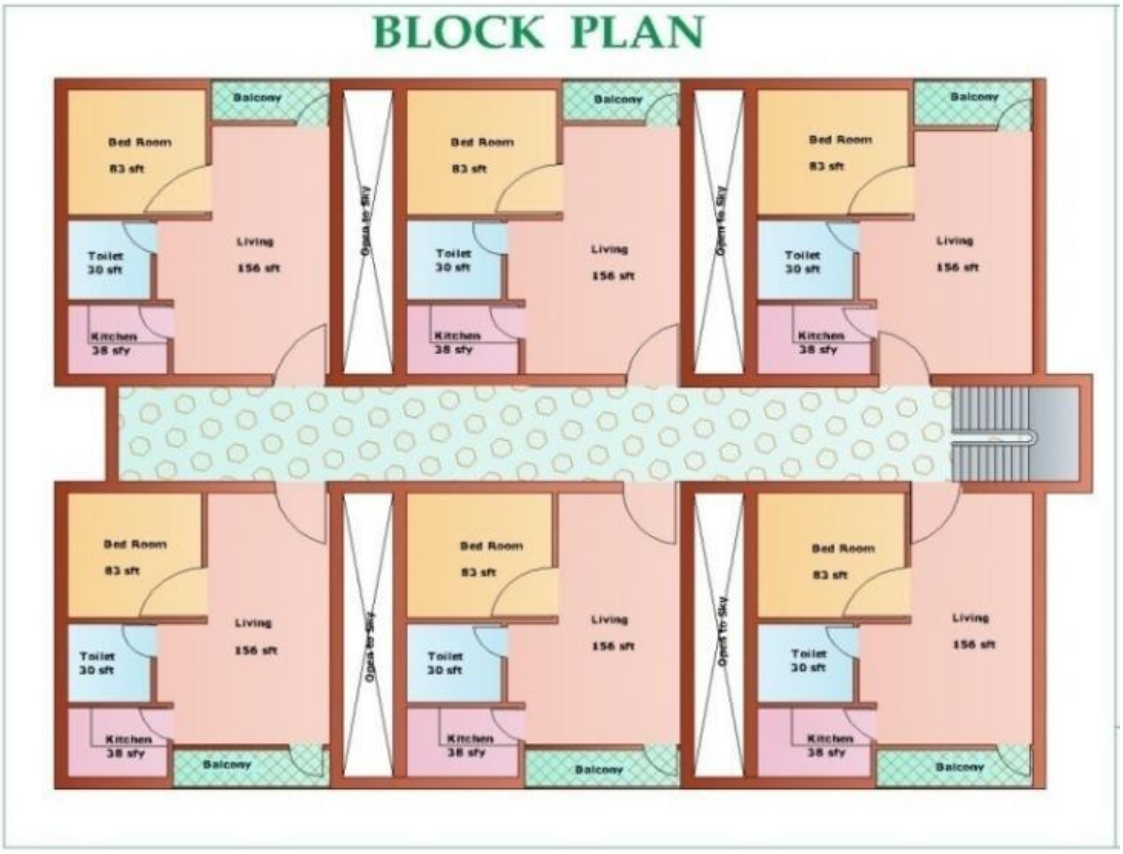
Construction

The type of construction will vary with several factors like soil conditions, local requirements and cost of the land. Generally in the smaller towns, which basically have rural culture, multistoried buildings are not acceptable but with circumstances, G+3 has been

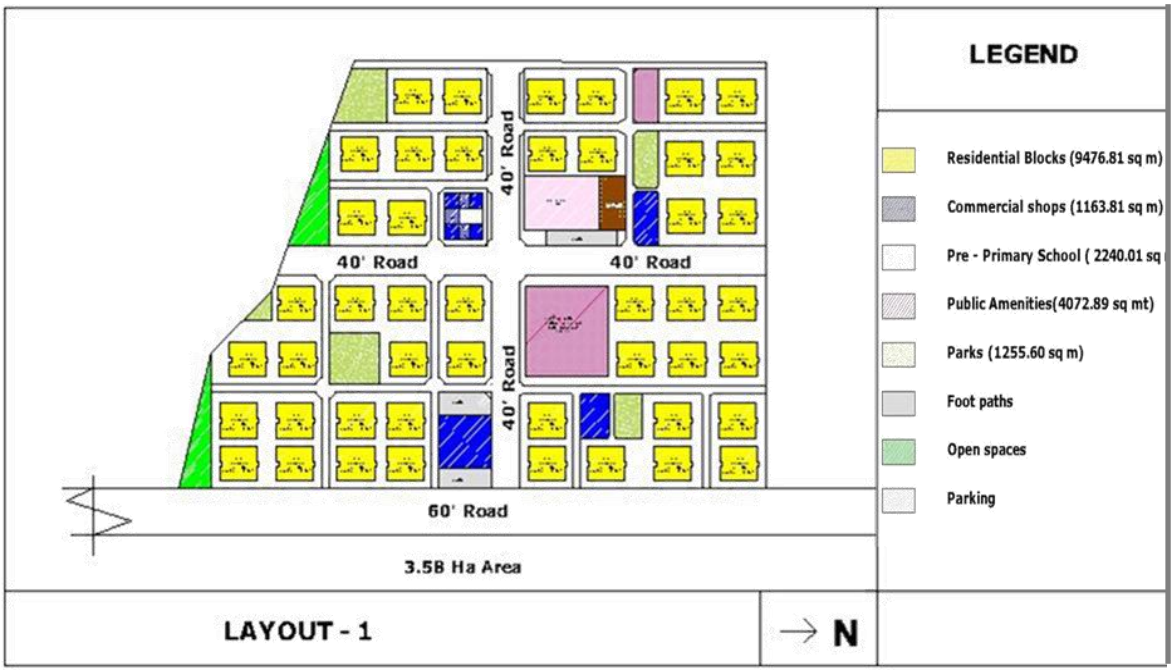
proposed for slums where ever required. The type of of housing would generally be small but independent houses/ combined houses with some free space around the houses. Given the occupation status of the slum households, some of them might have push carts or some of them may use this space for cottage industries or vegetable gardening.

Structure wise, a permanent housing unit with a plinth area of 330.60 Square feet will be constructed. The walls shall be built with solid concrete blocks and slabs shall be RCC. Ready mixed concrete shall be used in all RCC elements of the building for quality assurance and providing a smooth finish to the surface requiring less finishing.

The plan and specifications of single block are as follows:



DESCRIPTION	UNIT
Area of Block	2670.40 sq. ft.
No. Of Dwelling Units per block	6
Corridor width	7 ft
Stair case	45 Sq.ft
Area of layout	3.5 Ha
No of Blocks	46
No of Dwelling units	(46 X 18) = 828



Map 5-1 : Model layout

5.3 MODALITIES / APPROACH

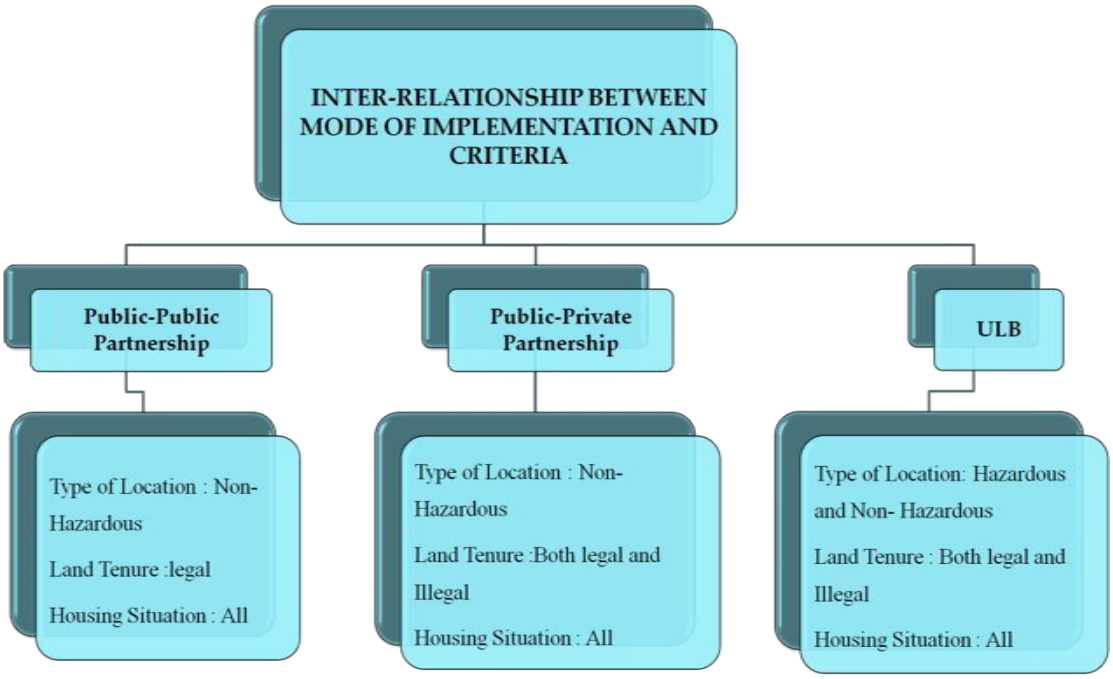


Chart 5-1 : Modalities & Approach

A gap is sometimes called "the space between where we are and where we want to be." A gap analysis helps bridge that space by highlighting which requirements are being met and

which are not. The tool provides a foundation for measuring the investment of time, money and human resources that's required to achieve a particular outcome.

5.3.1 Slum Up-gradation/Redevelopment Options

With spatial analysis and situation assessment done as above, a participative process will need to be undertaken with slum communities with the assistance from NGOs/CBOs active in the area of slum housing/ development to identify the possible development options. The *table 5-4* provides an indicative list of alternative development options and implementation modalities. The dialogue for choice of the model will also explore the possibilities of relocating slum households from high density/untenable slums to low-density tenable slums within the same zone. The following physical development options are possible

i. **Slum Improvement**: Extending infrastructure in the slums where residents have themselves constructed incremental housing.

ii. **Slum Up gradation**: Extending infrastructure in the slums along with facilitation of housing unit up gradation, to support incremental housing.

iii. **Slum Redevelopment**: In-situ redevelopment of the entire slum after demolition of the existing built structures

iv. **Slum Resettlement**: In case of untenable slums to be rehabilitated on alternative site.

5.3.2 Potential for Private Sector Participation

Private sector participation can be envisaged in redevelopment of slums where reasonable returns are expected for the investor. In order to assess the potential for PPP, ULB will need to map and tabulate land values in immediate environs of all slum pockets.

a. Outputs of the Slum Redevelopment Plans

- Development options and cost of each option for different categories of slums, which are to be proposed and vetted by community.
- Identification of options for development model proposed for each slum.
- Selection of development model for the slums to be followed by project development in consultation with the communities
- Identification of resettlement pockets
- Identification of slums to be densified
- Creation of vacant land,
- Identification of TDR loading corridors
- Integrated infrastructure planning including the identification of trunk infrastructure alignments and capacities(existing & proposed)

b. In relation to slum pockets

- Analysis of slums with low densities to assess slum pockets with possibility of densification to rehabilitate households from other slum pockets and creating vacant land pockets
- Exploring relocating possibility of untenable slums in nearby (within the zone) vacant pockets/ existing low density slum keeping their relation to employment centres

c. Outputs

- Development options for different categories of slums
- Implementation Structure.

5.4 INVESTMENT REQUIREMENTS

Accurate assessment of investment requirements and devising a suitable financing strategy are the key components for any sustainable slum rehabilitation program. It is of vital importance that implementing bodies recognize and measure the various costs of developing infrastructure and housing, including the costs for subsequent maintenance of the same. The success of the slum rehabilitation program would depend on matching the investment needs with the vibrancy/buoyancy of the various elements of the proposed finances. The following section describes the costs projected for various sectors.

5.4.1 Housing

Based on the mode of development, the slums in view of housing condition, and physical location, has been categorized accordingly. The following *Table 5-5* presents the required cost for each type of development for the slums.

Table 5-5 : Housing Investment Requirements

Mode of development	Hazardous	Non-Hazardous	
		Semi-Pucca + Katcha houses More than 75%	Semi-Pucca + Katcha houses Less than 75%
	Relocation	In – Situ	Up-Gradation
No. of HHs	0	775	1145
Deficit	0	775	758
Housing Deficit	1533		
Costing (₹Lakhs)		3455.17	2775.23
Total Cost (₹Lakhs)	6230.40		
Total Cost (₹Crores)	62.30		

As illustrated in *Table 5-5*, 55% of the total estimated cost is allocated for In-situ mode of development and 45% for slum up-gradation in Kannauj City. For calculation purpose, costing per unit @ ₹4.05 lakh per house has been taken into view for the first year. Additionally for a duration of 5 years, an increase of 5% in the costs has been assumed with due consideration to changing market rate.

5.4.2 Infrastructure

This section covers the existing physical and social infrastructure and also the requirements for the same in **all slums** of the ULB including **perspective plan for 5 years.** Taking into account the additional requirement as mentioned in *Tables 5-2* and *5-3*, the costing has been calculated for each sector shown in *Table 5-6*.

Table 5-6 : Investment Requirement for Infrastructure

S. No	Sector	Sector - Unit	Proposed Cost for 5 years (in ₹ Lakhs)
PHYSICAL INFRASTRUCTURE			
1	**Water Supply**	Running length of sub line (Km)	54.91
		Raising Main (Km)	8.86
		Individual taps (No)	----
		Overhead water tanks (No)	0.00
		Sub Total	**63.76**
2	**Sanitation**	Length of Underground Sewer Line (Km)	417.97
		Length of storm water Drainage Lines (Km)	75.18
		Individual toilets (No)	83.05
		Sub Total	**576.21**
3	**Solid waste management**	Garbage dumping Bins (No)	6.12
		Sub Total	**6.12**
4	**Roads**	Length of Approach roads (Km)	5.56
		Length of Internal roads (Km)	343.01
		Sub Total	**348.57**
5	**Street Lighting**	Street lights (No)	62.49
		Sub Total	**62.49**
Total Physical Infrastructure			**1057.16**
SOCIAL INFRASTRUCTURE			
6	**Education facilities**	Anganwadi (No)	0.00
		Primary school (No)	0.00
		High school (No)	0.00
		Sub Total	**0.00**
7	**Health Facilities**	Primary Health Centre (No)	0.00
		Sub Total	**0.00**
8	**Social development**	Community Room (No)	0.00
		Recreation park (sq.mts)	46.04
		Sub Total	**46.04**
Total Social Infrastructure			**46.04**
Grand Total Cost (Physical + Social) for Infrastructure			**1103.19**

The total cost estimates for infrastructure up gradation and provision is **₹11.03** Crores, where physical infrastructure is estimated for **₹10.57** Crores and social infrastructure is around **₹0.46** Crores.

The following table presents sector wise cost estimated for five years by taking into consideration the cost calculated for the additional provisions/requirements, mentioned in earlier section:

Table 5-7 : Sector Wise Estimated Cost (in ₹ lakhs)

Sector	Estimated Cost for I year	Estimated Cost for II year	Estimated Cost for III year	Estimated Cost for VI year	Estimated Cost for V year	Total Project Cost for 5 years
Housing	1206.22	1364.64	1993	1120.78	545.76	**6230.40**
Water Supply	3.6	15.51	20.84	18.54	5.29	**63.76**
Sanitation	17.58	131.23	218.47	155.89	53.03	**576.21**
Solid waste management	0.76	0.97	2.22	1.46	0.71	**6.12**
Roads	0.00	118.81	77.95	133.17	18.65	**348.57**
Street Lighting	0.00	14.19	22.92	20.19	5.19	**62.49**
Education	0.00	0.00	0.00	0.00	0.00	**0.00**
Health	0.00	0.00	0.00	0.00	0.00	**0.00**
Social development	3.03	9.72	18.06	11.91	3.32	**46.04**
Others	73.87	99.30	141.21	87.72	37.92	**440.02**
Total	**1305.1**	**1754.4**	**2494.65**	**1549.66**	**669.87**	**7773.60**

As shown in above table, the total cost projected for 5 years is **₹77.74** Crores, in which 79% is allocated for housing as top priority; 14% for physical infrastructure and 1% for social infrastructure. Under others head 6% of the housing, physical and social infrastructure is considered.

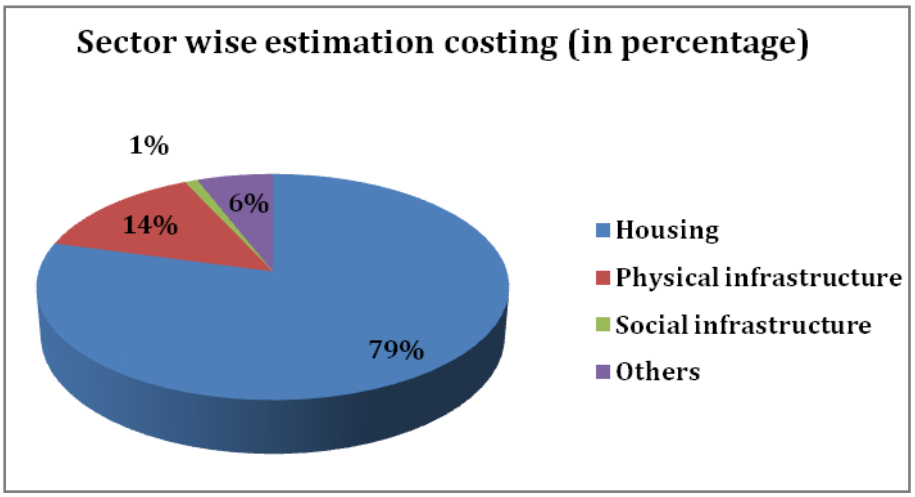


Figure 5-1 : Sector wise estimated Costing

Among physical infrastructure elements, due priority is given for sanitation for the next 5 years followed by roads and water supply. About 54% of the costing in physical infrastructure is allocated for sanitation. About 33% of the cost is allocated for roads, 6% for water supply and 6% for street lighting.

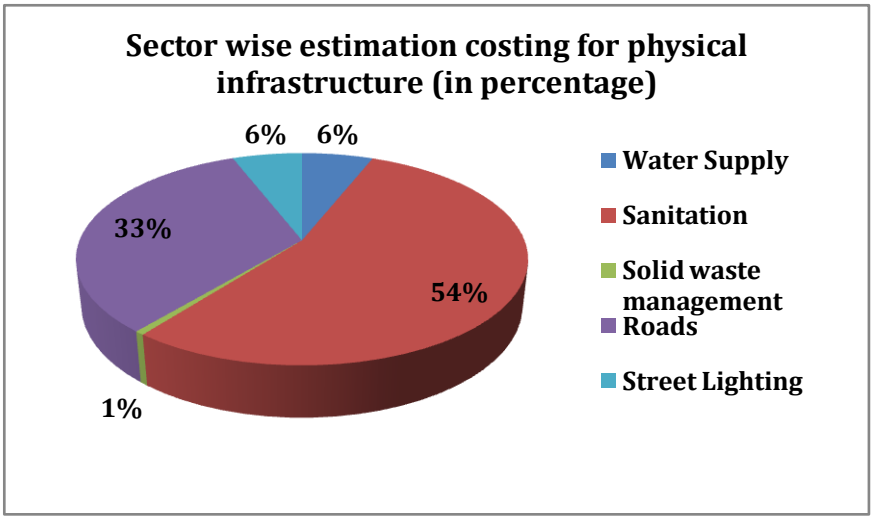


Figure 5-2 : Sector wise estimated Costing for Physical infrastructure

In the first year of development, 2 slums (284 housing deficit) has been tentatively proposed for in-situ development with an estimated cost of ₹12.06 crores.

5.4.3 Other Costs

In general, operation and maintenance costs form a sizeable share of a slum redevelopment budget. In case of Kannauj slums, other cost makes up 6% of the total estimated cost for each year. The following list of related costs that will be incurred during the implementation of a slum rehabilitation/redevelopment includes:

- O&M (2%)
- DPR (1%)
- Project Implementation (1%)
- Capacity Building (1%)
- Offsite cost (1%)

Table 5-8 : Others costing for 5 years

Year Wise	O & M	DPR	Project implement ation	Capacity building	Off site Costing	Annual estimated other cost (in ₹ Lakhs)
Ist Year	24.62	12.31	12.31	12.31	12.31	**73.86**
IInd Year	33.1	16.55	16.55	16.55	16.55	**99.3**
IIIrd Year	47.07	23.53	23.53	23.53	23.53	**141.19**
IVth Year	29.24	14.62	14.62	14.62	14.62	**87.72**
Vth Year	12.64	6.32	6.32	6.32	6.32	**37.92**
Total	**146.67**	**73.34**	**73.34**	**73.34**	**73.34**	**440.02**

Depending upon the mode of development, the operation and maintenance costs will vary from slum to slum. Seen in *Table 5-8*, the others cost catering to the housing and infrastructure investment requirements as set out earlier includes 5 (five) sectors where **4.40** crores has been estimated for a period of 5 years. Of the total estimated costs under others head, 33% is allocated for Operation and maintenance (O&M).The remaining initial costs such as Project implementation, and DPR, capacity building and offsite costing expenses alone constitute 67%.

5.5 CAPACITY BUILDING

Through the medium of District Urban Development Authority (DUDA), Urban Local Body (ULB) and community organizations, SJSRY Schemes will be integrated with Ministry of Housing and Urban Poverty Alleviation (MoHUPA), GoI.

5.5.1 Slum dwellers

Slum dwellers also act as **stakeholders** in planning for slums as they understand the slums, strategies implemented in those slums and future requirements. Hence they should be trained in developing their respective slums, otherwise the aims of SJSRY staff not be fulfilled.

5.5.2 Intermediaries

CO's, CBO's and community volunteers are the **Intermediary stakeholders** to train the trainer's. Capacity building for them is convincing & managing the slum association to accept proposals. Training and adequate guidance to the CBO's and the community volunteers can be organized by the concerned cells/agencies/lead NGO to build common understanding on their role and purpose of data collection for the SFCP. The capacity building activities can also be undertaken by the National Network Resource Centres (NNRCs), empanelled by the Mo/HUPA.

It is expected that the SFCPoA is prepared with active participation of community during the planning process. To enable the same suitable structures (cooperatives/ societies) might need to be formed, where necessary. The communities would need to demonstrate willingness to adopt the implementation option, plan for livelihood/ economic activities within the slum. Communities are also expected to assist in generating the beneficiary contribution.

5.5.3 Government stakeholders

Being the main sponsor of the RAY scheme, ULB would prepare the SFCPoA as a first step to clearly articulate the action plan for making the city "slum free". During the preparation of Slum Free City Plan of Action, ULB would continuously consult with the community in the planning process. During the process, ULB would categorize and prioritize for rehabilitation/ redevelopment, and would provide/ facilitate provision of infrastructure. ULB, in consultation with the community, will also allot dwelling units and enable provision of the legal titles to the beneficiaries.

CHAPTER 6 - SLUM PREVENTION STRATEGY

6.1 INTRODUCTION OF SLUM PREVENTION STRATEGY

Strategy for prevention of slums in future will include prevention of encroachments and illegal structures and further supply of affordable housing on the other. The plan of action should encompass proposed action to be undertaken by the city to commensurate the lands and promote the construction of affordable housing in consonance with the housing demand. City-wide policies for slum prevention should include:

- Inventory of Vacant and underutilized lands through GIS mapping
- Assessment of Housing demand for current slum population and future using Master Plan estimated values
- Formulation of demand side as well as supply housing strategies through exploration for various development options such as PPP model, direct subsidies and incentives

Land Reservation/Land pooling

- Reservation of 20-25% of developed land for EWS/LIG housing
- Land assembly mechanisms and policy obstacles to land supply
- Ensure continuous supply of developed land for EWS/LIG housing

Allocation of land to various organizations

- In new cases where land is allotted to various organizations or institutions by the government for development of work space, or industries, or institutions etc., there shall be reservation of land for economically weaker sections and low income groups of persons in respect of all municipalities, municipal corporations and urban development authorities.
- In respect of land where it has already been allotted, the unutilized portion may be reserved for economically weaker sections

New Housing

- Availability of Public vacant lands
- Incentives provided to private sector
- Availability of housing finance to be ensured for low income groups through public agencies and retail finance.

Rental

While evaluating existing scenario of slums there is a need to provide rental housing for migrating poor dwellers from place to place with respect to work. The provision of rental housing will make sure the poor people will not be forced to stay in a particular slum if they would have a facility of rental homes at several parts of the city. 50 % of the projected housing demand will be considered for provision of rental housing.

- Decide eligibility of tenants
- Standards for rental housing
- Decide for rental housing policy for rents, modalities for allotment, evictions
- Mechanisms for maintenance and management
- Incentives for rental housing

6.2 HOUSING STOCK ASSESSMENT

6.2.1 EWS and LIG Housing Projection in the town

The EWS and LIG housing projections were calculated for the city for the next 20 years (refer Chapter 2.5). Assuming that, all the slums in the town will be developed under Rajiv Awas Yojana scheme, the EWS and LIG Housing projections were calculated for the rest of the city excluding the slum households. The future housing supply has been computed in accordance with the existing growth rate of the city housing. This identified housing requirement for EWS and LIG were considered for preventive strategy.

Table 6-1 : Future Housing projection pertaining to EWS and LIG

EWS and LIG Housing Projection	
Year	**Households**
2011	738
2016	880
2021	988
2031	1390

6.2.2 Household requirement

The efficient and timely provision of EWS and LIG housing at affordable price would avoid formation of new slums. The requirement of 738 households in 2011 can be tackled in 5 years. An increase of 10% in households is considered for every year to meet the growth rate. The year wise break up is depicted in the following table.

Table 6-2 : Housing requirements for 5 years

Households Projection	
Year	**Households**
1st	148
2nd	163
3rd	178
4th	196
5th	215
Total	**900**

6.3 LISTING OF AVAILABLE RESOURCES/INSTITUTES

The Uttar Pradesh state and Kannauj has a considerable number of Institutions involved in development of Housing, especially for the urban poor in the state. The Key institutions involved are:

- Town and Country Planning Department
- Uttar Pradesh Housing and Development Board (UP Avas Vikas Parishad)
- Kannauj Nagar Palika Parishad
- District Urban Development Agency (DUDA)
- Uttar Pradesh Cooperative Housing Federation
- Strict Implementation of Reforms

The mandatory reform under JnNURM targeting urban poor "Earmark at least 20-25 percent of developed land in all housing projects (developed by public and private agencies) for Economically Weaker Section (EWS) and Lower Income Group (LIG) category with a system of cross subsidization" on strict implementation would potentially solve the formation on new slum settlements and would address the migrated urban poor belonging to EWS/LIG.

Apart from that, as per the Housing policy framed in 2010, all government, private and cooperative housing schemes above 3,000 square metres in area is mandated to allocate 10% units each to EWS. This prompts any developer to keep a total of 20% land area reserved for these units; up on which layout plan would be approved by the development authority. On strict implementation of the above mentioned reforms of JnNURM and Housing Policy would solve the existing and future EWS/LIG housing in the city

6.4 IMPLEMENTATION PLAN

6.3.1 Options for Generating Stock

Public Private Partnership

The rationale behind creating public-private partnerships is that the private sector typically has access to upfront capital and a track record of delivering products efficiently, while the public sector/state/central Govt. controls the regulating environment and, occasionally, crucial resources needed to implement a project, such as land. The following illustrates three different slums chosen for PPP model wherein the housing type with infrastructure has been proposed.

TAKEDARWALI GALLI –MODEL LOYOUT

Takedarwali Galli is one among KNJ/11 slums located in the Core area of Kannuaj City. It has a total population of 200 with 32 households and an area of 3917.97 Sq.m. Of the 26 houses, 35 % are katcha in nature. Due to lack of well built housing structures and inadequate physical infrastructure, there is a need to improve the living conditions in Takedarwali Galli slum.

PROPOSALS

Based on the above information, in situ mode of development has been recommended to make the areas habitable and for provision of tenure rights to the slum dwellers. As part of in situ development, 48 dwelling units have been proposed with each unit of area 331.50 Sq. ft and comprises of living room, single bedroom, a kitchen and toilet .The following gives a description of a single housing unit:

Description	Dimensions (Feet)
Bed room	9.0 x9.0
Living	8.6 x 17.0
Toilet	6.0x5.0
Kitchen	7.0x5.6
Balcony	10.0x2.6
Total area of Dwelling unit	331.5 (sq. ft)

Specifications for Doors & Windows in a single Dwelling unit:

Description		Dimensions (Feet)
Doors	D 1	3.11 x 6.5
	D2	3.30x 6.5
Windows		3.3x4.11
ventilators		1.12x4.11

Housing Plan:

Per block 12 dwelling units (DU) has been proposed with a total area of 2636.10 sq. ft. A total of 4 blocks has been proposed preferred floors to be G+1 for each. The specifications and plan of a single block has been shown below:

- Area of Block – 2636.10 sq ft.
- No. Of Dwelling Units – 6 per floor , total 12 units
- Corridor – 6’ wide
- Stair case

Block construction specifications:

S. No	Description	Units
1	Earth Work Excavation for RCC footing	3.28' depth
2	CC 1:4:8 for footing	4'' thick
3	VRCC footing M20	5'X5'X12''thick
4	VRCC columns M20	9'' x12'' size
5	VRCC Plinth beam M20	9''x 12'' size
6	PCC BED for plinth beam	4'' depth
7	Earth Filling to foundation & Basement	1'5'' Depth
8	40x15x22.5 cms CC solid Blocks for Walls	9'3'' height
9	40x10x22.5 cms CC solid Blocks for partition walls	9'3'' & 6'10'' height
10	VRCC M20 for lintel	9'' Width
11	VRCC roof Slab M20	4'' Thick
12	Ceiling plastering	CM 1:4 of 2'8''thick
13	Wall plastering inside	CM1:4 of 2'8'' thick
14	Wall plastering outside	CM1:3 of 4'' thick
15	MS hallow Door with shutters for main Door & Bedroom	2'11'' X 6'5'' & 2'5''x 6'5''
16	NCL Windows & Ventilators	2'11'' x 6'5'' ,1'11'x 6'5''
17	Acrylic Emulsion Paint	Inside walls & Ceiling
18	Acrylic Emulsion Paint	outside
19	Flooring	Inside houses
20	Internal Electrification	Provided
21	Internal Sanitation	Provided
22	Internal Water supply	Provided
23	Painting to Doors & Windows	Provided
24	Rooftop Plastering	Provided
25	Staircase	Provided

Source: 25th Revised Edition Estimation and Costing in Civil Engineering. (By B.N. DUTTA)

LAND USE

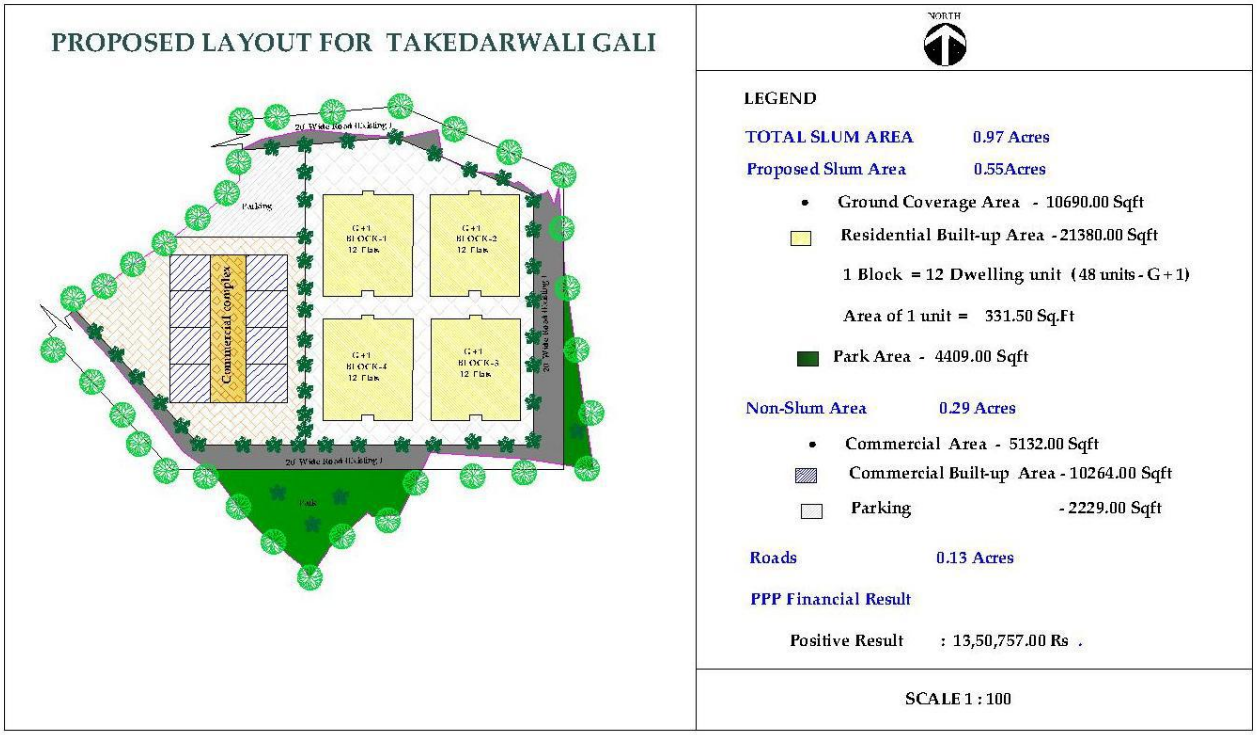
The following table presents the proposed land use for Takedarwali Galli Slum:

Description	Area (Sq. ft)
Slum Area	0.97 Acres
Proposed Slum Area	21380.00
Commercial use	10264.00
Parking	2229.00
Park	4409.00
Roads	5662.00

To encourage future development in the slum, a Public-Private partnership has been chosen for mixed land use where 10264.00 Sq. ft of land is allocated for commercial space and 14% for roads has been reserved .Under this model, potential business opportunities can be created as well as better access to improved infrastructure, thus fostering Takedarwali Galli slum development in the long run.

PHYSICAL INFRASTRUCTURE

- **Roads** - B.T. are proposed as per the requirement
- **Surface / storm water drains** -RCC U-Shape drains are proposed on both sides of the road to drain out the Surface water as per the site requirement.
- **Sewerage** -Provision for sewerage distribution system has been made and the same will be connected to main Sewer line nearby wherever sewer facility is available.
- **Water Supply** -water supply distribution network linked to city wide has been proposed as per the requirement and individual sumps and overhead tanks have also been proposed.
- **Electricity -**Lump sum provision for layout electrification has been made along with provision for individual house connection. Obtaining the electricity Service Connection will be the responsibility of the dweller and observing the necessary formalities by metering. The houses will be provided with internal and external wiring for getting service connection from the electricity authorities concerned.



Map 6-1 : proposed layout of Devanandapur

SHAKEPURA- MODAL LAYOUT

Shakepura is one among KNJ/10 slums located in the Core area of Kannuaj City. It has a total population of 626 with 108 households and an area of 16728.025 Sq.m. Of the 64 houses, 23% are katcha in nature. Due to lack of well built housing structures and inadequate physical infrastructure, there is a need to improve the living conditions in Shakepura slum.

PROPOSALS

Based on the above information, in situ mode of development has been recommended to make the areas habitable and for provision of tenure rights to the slum dwellers. As part of in situ development, 108 dwelling units have been proposed with each unit of area 331.50 Sq.ft and comprises of living room, single bedroom, a kitchen and toilet .The following gives a description of a single housing unit:

Description	Dimensions (Feet)
Bed room	9.0 x9.0
Living	8.6 x 17.0
Toilet	6.0x5.0
Kitchen	7.0x5.6
Balcony	10.0x2.6
Total area of Dwelling unit	331.5 (sq.ft)

Specifications for Doors & Windows in a single Dwelling unit:

Description	Dimensions (Feet)
Doors D 1	3.11 x 6.5
D2	3.30x 6.5
Windows	3.3x4.11
ventilators	1.12x4.11

Housing plan:

Per block 12 dwelling units (DU) has been proposed with a total area of 2636.10 sq. ft. A total of 9 blocks has been proposed preferred floors to be G+1 for each. The specifications and plan of a single block has been shown below:

- Area of Block – 2636.10 sq ft.
- No. of Dwelling Units – 6 per floor , total 12 units
- Corridor – 6’ wide
- Stair case

Block construction specifications:

S. No	Description	Units
1	Earth Work Excavation for RCC footing	3.28' depth
2	CC 1:4:8 for footing	4'' thick
3	VRCC footing M20	5'X5'X12''thick
4	VRCC columns M20	9'' x12'' size
5	VRCC Plinth beam M20	9''x 12'' size
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7	Earth Filling to foundation & Basement	1'5'' Depth
8	40x15x22.5 cms CC solid Blocks for Walls	9'3'' height
9	40x10x22.5 cms CC solid Blocks for partition walls	9'3'' & 6'10'' height
10	VRCC M20 for lintel	9'' Width
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15	MS hallow Door with shutters for main Door & Bedroom	2'11'' X 6'5'' & 2'5''x 6'5''
16	NCL Windows & Ventilators	2'11'' x 6'5'' ,1'11'x 6'5''
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18	Acrylic Emulsion Paint	outside
19	Flooring	Inside houses
20	Internal Electrification	Provided
21	Internal Sanitation	Provided
22	Internal Water supply	Provided
23	Painting to Doors & Windows	Provided
24	Rooftop Plastering	Provided
25	Staircase	Provided

Source: 25th Revised Edition Estimation and Costing in Civil Engineering. (By B.N. DUTTA)

LAND USE

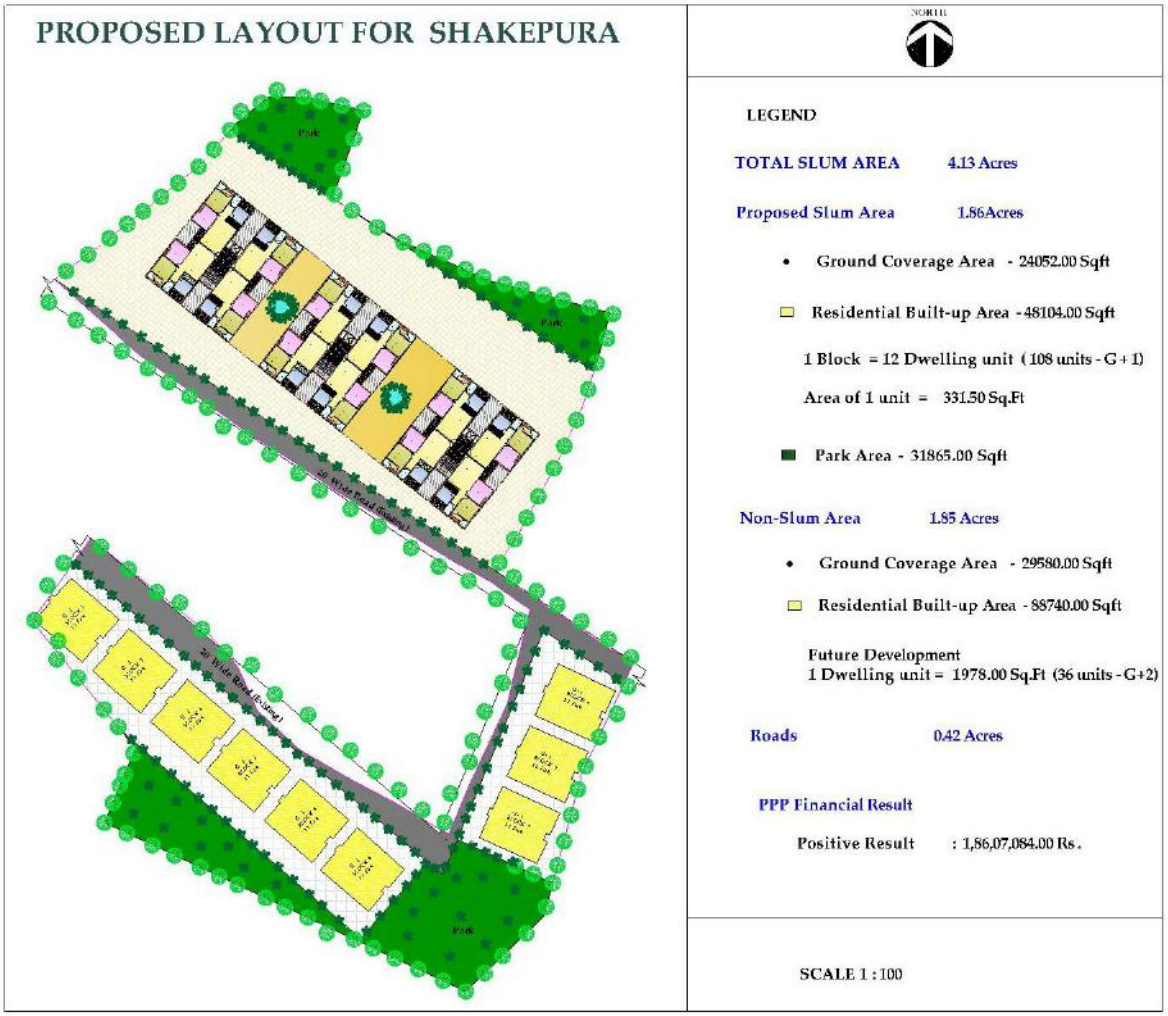
The following table presents the proposed land use for Shakepura Slum:

Description	Area (Sq. ft)
Slum Area	4.13 Acres
Proposed Slum Area	48104.00
Residential Area	88740.00
Park	31865.00
Roads	18295.00

To encourage future development in the slum, a Public-Private partnership has been chosen for mixed land use where 88740.00 Sq. ft of land is allocated for Regular Residential space and 11% for roads has been reserved .Under this model, potential business opportunities can be created as well as better access to improved infrastructure, thus fostering Shakepura slum development in the long run.

PHYSICAL INFRASTRUCTURE

- **Roads** - B.T. are proposed as per the requirement
- **Surface / storm water drains** -RCC U-Shape drains are proposed on both sides of the road to drain out the Surface water as per the site requirement.
- **Sewerage** -Provision for sewerage distribution system has been made and the same will be connected to main Sewer line nearby wherever sewer facility is available.
- **Water Supply** -water supply distribution network linked to city wide has been proposed as per the requirement and individual sumps and overhead tanks have also been proposed.
- **Electricity -**Lump sum provision for layout electrification has been made along with provision for individual house connection. Obtaining the electricity Service Connection will be the responsibility of the dweller and observing the necessary formalities by metering. The houses will be provided with internal and external wiring for getting service connection from the electricity authorities concerned.



Map 6-2 : proposed layout of Shakepura

Rental Housing

Rental housing shall be developed in partnership with the private sector and ULBs may determine rents to be paid by the households. Families may also contribute to a maintenance fund. Both amounts shall be based on an assessment of affordability by the ULB. Developers, where applicable, may be permitted to collect rentals to recover the cost of construction in BOT arrangements, as appropriate. Maintenance charges may be collected by the cooperative/Resident Welfare Association/land trust, as the case may be. The following are the list of options available under rental housing:

- Rental housing by employers/industries/SEZ - Employees housing for high paid employees
- Rental housing by employers/industries/SEZ - Employees housing for low paid employees
- Dormitory housing
- Subsidy housing / FAR incentive
- Others- Group housing

6.3.2 Targets & Timelines

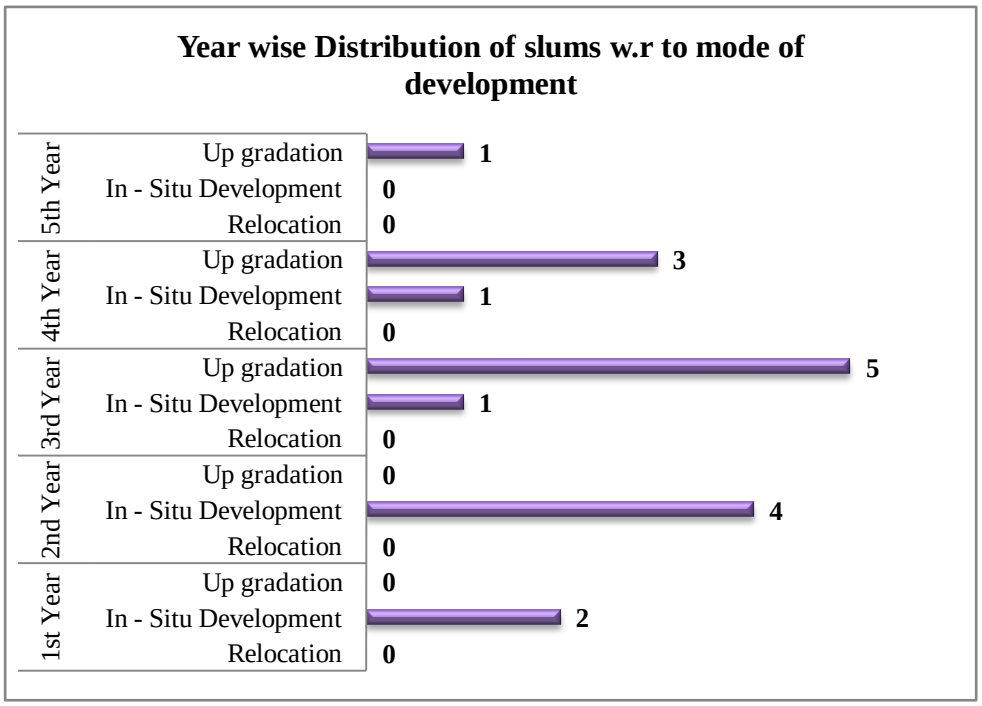


Figure 6-1 : Mode of Development

As seen in the above Figure, for 17 slums in Kannauj city, 8 slums are proposed under in-situ mode of development and 9 for up-gradation based on assessment of the living conditions in those areas. Given the magnitude of problems faced, the slums have been prioritized and to be implemented year wise respectively. Once the redevelopment process is initiated, it is imperative that slum wise targets should be set and adhered in order for the rehabilitation process to be accomplished within the set time frame. For this to happen, it is necessary that there needs to be high level coordinating mechanism between wide group of stakeholders

such as Govt. officials, professionals from different disciplines, NGOs/CBOs, and slum dwellers**.**

6.5 SLUM PREVENTION REFORMS

For any city, preventing the formation of newer slums is quite critical and pretty much the same as dealing with the existing slums. A key component in preventing future slums is the availability of developed lands at affordable prices, set aside for meeting the needs of the urban poor. To prevent further growth of slums and improve the social status of existing ones along with reconstruction, the states need to make the following provisions in terms of amendments to certain legislations, reservation of lands, as well as formulate newer laws such as:

a. Assignment of property rights

The property rights shall not be assigned to the slum dwellers in the slum Areas notified and located on any of the following categories:

Objectionable government lands, such as tank beds, burial grounds, solid waste land fill cities etc., central government, defense , industrial units, disputed lands, protected monuments, public sector lands and other lands which are specified by government for a specific purpose and usage.

The legal title should be entitled either on the woman or jointly with the main male householder, provided it should be made on the house or the land and it must be alienable as per the transfer of title to state after a certain period.

b. Formation of Slum Redevelopment Authorities

A slum redevelopment authority is to be created at state level with induction of members from various departments. The role of the authority would be to provide guidance in identification of slums, formulate policies and programmes for redevelopment and rehabilitation of slums, special zoning regulations and to administer the funds released by govt. of India, state govt. and other agencies. On similar lines of the slum redevelopment authority at state level, a district level authority can be formed to function as well as monitor the slum rehabilitation for each district.

c. Land Acquisition

Just in case where no suitable government or ULB lands are available, suitable private patta lands are identified for rehabilitation of slum areas.For implementation of Infrastructure Projects in Public Sector viz providing housing stock, State highways, canal, power and so on the process of land acquisition would be initiated by following the Rules & Regulations as provided in the Land Acquisition Act 1894, from the land owners. But the compensation of land would be fixed by mutual consent as per the provisions of the Uttar Pradesh Land Acquisition (Determination of Compensation and Declaration of Award by Agreement) Rules, 1997. Those land owners whose land is acquired for these projects would be given all the benefits of the Rehabilitation & Resettlement Policy 2010 (as amended) of the Government.

d. Land pooling

In land pooling/town planning scheme, the owner or developer undertaking the development shall reserve and earmark the land in the proportions of 5% for the economically weaker sections (EWS) and 5% of land for low income group persons for housing purpose. In case of vertical development, 20% of built up space shall be earmarked for EWS and low income groups.

Once implemented, in the long term, availability of affordable land /housing will discourage squatting by poor on public lands and create slum free cities. It will also sustainably reduce urban poverty levels by providing legal access to better services and economic opportunities.

e. Land use conversion and development permission process w.r.to time

It is generally abide by the master plan provision of that particular area; however the land use change and development permission process has to be dealt with in a time frame 30 days by the development or controlling Authority, as per the norms of Town and country planning Department, Uttar Pradesh.

f. Building & Layout Plans of Regulated Areas

The powers to formulate building bye laws lie in the municipal legislations/ acts of local government or development authority within its jurisdiction or the municipal acts of State Government. Formulation of building byelaws is generally facilitated by the provisions made under common municipal law/ act for the State, which also covers those urban areas that do not have separate building bye laws.

'NO OBJECTION' certificate for building plans having total covered area more than 250 Sq.mt and Lay-out plans of more than 1.0 hectare area are also to be dealt with in a time frame of **30 days** by the development or controlling Authority, as per the norms of Town and country planning Department, Uttar Pradesh. However the Model building and layout plans prepared in this report are as per the standards of National building code.

g. Transferable Development Rights (TDR) /Incentive Zoning

TDR is aimed at providing to a land owner /builder additional FAR in another property/part of the city in exchange for presently occupied land so that the land could be consolidated. This method has been extensively used in other parts of India.

h. Microfinance for shelter up-gradation

To make cities slum free, it is necessary to build partnerships with Self Help Groups and Micro Finance Institutions both formal and informal to help poor access money to purchase land /houses. Often Financial Institutions prefer to provide loans through NGOs, who works as intermediaries, to disburse loan to beneficiaries. State/ city administration can facilitate this process by standing guarantee or by framing appropriate regulations so that benefits of these transactions reach the target group.

i. Other legislations

- Under the 7- Point Charter of JNNURM in order to make serviced land available for the poor for the future and to prevent slums – there is a necessity to reserve 10%--25% of the land for every new public/private housing projects.

- Amendment to enactments to enable revision of population density norms, FAR, land use, etc. and to allow private sector participation wherever reasonably possible.
- Extension of basic network services including health and education to slum settlements
- Provision of skills and training and nonwage, self employment assistance, the self-employment component in the SJSRY
- Microfinance for shelter up-gradation
- Changes in Master Plans that allows for slum renewal and redevelopment, legislation and building byelaws

j. ULB's role

The implementing agency/ULB would need to continue fiscal reforms that have already been initiated under the JNNURM and other relevant schemes. Approach to financing of the ULB contribution would need to be a combination of initiatives that ring-fence and maximize internal accruals, and developing a framework for sustainable community participation/ unlocking other sources of revenues.

CAPACITY BUILDING

With the launch of RAY, capacity building efforts received a significant boost in terms of scale as well as scope. It is usually focused on provision of technical assistance, training and knowledge support to enable implementation of programmes and related components. Through incremental approach and comprehensive framework, capacity building requires in selecting the appropriate mode of training and should imply the flow of ideas, systems and processes, knowledge management through the creation of networks of sector managers for sharing emerging trends, ideas and best practices towards implementing slum free cities.

At State level

The state needs to prepare state specific capacity building strategy should map existing arrangements/requirements/gap analysis/identify specific measures for strengthening existing facilities and expertise. This framework should incentivize knowledge and skill development and provide an environment for the use of skills acquired.

At ULB level

Given the legal implications, it is essential for ULB staff to improve levels of performance in order to reduce evasion. Hence to gain expected outcomes, it is necessary for orienting ULB personnel to the role expected out of them in the context of rising expectations from the citizens in terms of service delivery, greater transparency and accountability etc.

At NGO's level,

Implementation of projects and reforms involves increased stakeholders participation among the general public, NGOs and the private sector. There is a need to create forums where different stakeholders can articulate their demands for better service delivery and governance levels.

Slum dwellers

Slum dwellers also act as stakeholders in planning for slums as they understand the slums, strategies implemented in those slums and future requirements. Hence they should be trained in developing their respective slums, otherwise the aims of SJSRY staff not be fulfilled.

An amount up to 5% of the total annual allocation of RAY scheme will be set aside for capacity building activities, of which 1% would be utilized by the Centre, 4% by the States/UTs. In addition, up to 5% of the total scheme allocation will be earmarked for preparatory activities regarding development of Slum-Free City Plans including pilot projects, preparation of DPRs, community mobilization, IEC, planning and administrative expenses for both the Centre and the States/UTs and creation of institutional space and capacities.

6.6 INVESTMENT REQUIREMENTS

a) Housing

The following table shows the finance costing for projected households for 5 years.

Table 6-3 : Costing for projected Households

Costing for projected households		
Year	**Households**	**Estimated cost (in ₹ Lakhs)**
1st	148	598.66
2nd	163	691.41
3rd	178	793.88
4th	196	916.93
5th	215	1059.02
Total	**900**	**4059.91**

As seen in the above table, an increase of 900 households is expected, for which the estimated costs for 5 years is **₹4059.91** lakhs with an increase of **5%** (construction inflation cost) per year.

b) Other costs

The following table shows the estimated costs for additional components and other costs for Slum Prevention strategy which includes

- Operation and Maintenance costs (2% of Housing cost)
- Off site Cost (1% of Housing cost)
- Other Costs – Capacity Building, Cost Escalation and other costs (2% of Housing Cost)

Table 6- 4: Proposed 'Other' Costs (₹ in Lakhs)

Year	O&M	Offsite costing	Other Costs	Total Cost
1st Year	11.97	5.99	11.97	29.93
2nd Year	13.83	6.91	13.83	34.57
3rd Year	15.88	7.94	15.88	39.69
4th Year	18.34	9.17	18.34	45.85
5th Year	21.18	10.59	21.18	52.95
Total	81.20	40.60	81.20	203.00

A total of **₹ 203.00 Lakhs** (₹2.03 Cr) has been estimated for the additional costs for the project under Slum Prevention strategy.

Housing + Other Costs = ₹ 4059.91+ ₹ 203.00

= ₹ 4262.91 Lakhs (₹42.62 Cr)

The total of **₹42.62 Crores** has been estimated tentatively for the proposed development.

CHAPTER 7 - FINANCING STRATEGY

7.1 TOUCHSTONE PRINCIPLES

7.1.1 Institutional Framework

A number of agencies are responsible for various activities pertaining to housing for urban poor. Although it is primarily the responsibility of the ULB, other departments/ agencies such as the Urban Development Department, Town Planning Department Slum Clearance (or Redevelopment) Board, Housing Board and NGOs, all have a role to play in provision of housing and infrastructure services to the urban poor.
The following institutional methodology has been adopted for the state.

The institutional responsibility for slum improvement vests with the State Urban Development Agency (SUDA), the apex policy making and monitoring agency for urban areas in the state. It executes various government schemes for urban renewal like – Valmiki Ambedkar Awas Yojana, Integrated Urban Slum Sewerage Plan, National Slum Development Program, and Golden Jubilee Urban Employment Scheme etc. SUDA executes all its programs using beneficiaries for prioritization of needs and execution of schemes.

In case of Rajiv Awas Yojana, SUDA is the nodal agency at state level to implement surveys for the scheme. As per the directions of Government of India, Slum Survey started in Uttar Pradesh from the year 2009. Initially the survey was taken up under USHA programme, which had similar survey format of RAY. Various meetings were conducted by calling different para statal agencies to discuss the required methodology for conducting surveys and initiate the steps for survey. Several discussions were held at length and depth about the conduction of surveys and to finalize a methodology.

SUDA as State level authority and DUDA as city level authority have been the Nodal agencies to monitor the quantity and quality of surveys performed by individual cities. DUDA is headed by Project Officer (PO) who is in charge for one city, a nodal officer for a ULB and number of supervisors for quality and quantity check upon the enumerators who have completed the surveys. Member of Community Development Societies (CDS), Self Help Groups constituted under SJSRY and other schemes have been involved in conducting surveys and a minimum qualification of SSC was taken as eligibility for selecting Enumerators to collect information and to fill up the survey forms. The various stakeholders involved in the survey process comprised of CDS, Nehru Yuva Kendra societies, NGO's working in the local areas. In addition, key stakeholders involved along with SUDA in the process of implementing RAY scheme comprises of City Commissioners, Regional Center for Urban and Environmental Studies (RCUES) Hyderabad, UP Remote Sensing Center, NHG's, NHC's, CDS and reputed NGO's working in the local areas.

7.1.2 Assessment of Implementation Options

The assessment for implementing a mode of development for any slum in Meerut city would be based on the prevailing land value. The implementation could be both public and private depending on the public and stakeholders consensus with due approval of the city with respect to its land ownership and project implementation.

7.2 INVESTMENT CREATION FOR CREATION OF NEW AFFORDABLE HOUSING INCLUDING RENTAL HOUSING

Earmarking land for the poor alone may not be sufficient guarantee that land /housing will be available to the poor. There will be need to help the poor access this land. This will require creating awareness among the poor on where the lands have been allocated, include their development in the Ward Plans, tap potential of local /small private builders for housing the poor, engage with local NGOs to increase the voice of poor in local area planning and access to city resources.

The ULB's has to strictly execute the mandatory reform of "Earmarking at least 20-25 percent of developed land in all housing projects (developed by public and private agencies) for Economically Weaker Section (EWS) and Lower Income Group (LIG) category with a system of cross subsidization."

Under the Community Participation Law, ULBs are expected to set up Ward and Area Sabhas with adequate representation of poor people. These may be used as opportunities to proactively disclose the upcoming housing projects for poor within the city. This would also fit in with the provisions of the Public Disclosure Law.

Apart from large Public Private Partnerships, cities must also forge partnerships with Self Help Groups and Micro Finance Institutions both formal and informal to help poor access money to purchase land /houses. Often Financial Institutions prefer to provide loans through NGOs, who works as intermediaries, to disburse loan to beneficiaries. State/ city administration can facilitate this process by standing guarantee or by framing appropriate regulations so that benefits of these transactions reach the target group.

7.3 INVESTMENT REQUIREMENT AND FINANCING PLAN

In this category, the investment requirements for (i) the development strategies for all the prioritized slums framed under curative section and (ii) the supply of housing for urban poor estimated in the preventive section are collated.

7.3.1 Investment plan

The investment requirements to make the city slum free are categorized into two parts, curative and preventive. The main components included under curative while calculating the investment requirements are (i) Housing (ii) Physical Infrastructure (iii) Social infrastructure and (iv) Operation & Maintenance Costs. Under preventive strategy the investment requirement for the present and estimated urban poor i.e. BPL/EWS/LIG were calculated. The following tables indicate year wise requirements of slums as per the development options.

Table 7- 1 : Detailed Investment plan for the In-Situ mode – Curative (in lakhs)

In-Situ development							
S. No	ITEM	Year (Rs. In Lakhs)					Total
		1st Year	2nd Year	3rd Year	4th Year	5th Year	
	No. of slums proposed for Intervention	2	4	1	1	0	8
A	**Land Cost**	NA					
B	**Infrastructure**						
(i)	Physical Infrastructure (Like water supply, sewer, storm water drainage, solid waste management, roads & drainage boundary walls & gare, street lights, etc,)	21.94	280.71	26.07	88.44	0.00	417.16
(ii)	Housing (Construction of Du's)	1206.22	1364.64	505.72	378.59	0.00	3455.17
(iii)	Social Infrastructure (like community halls, Balwadi/scchool common toilet & bath etc. Market. Shopping play area/park and parking	3.03	9.72	3.01	3.17	0.00	18.92
	Sub Total B	**1231.19**	**1655.07**	**534.80**	**470.18**	**0.00**	**3891.25**
C	**Other costs**						
(i)	Operation & maintenance (2%)	24.62	33.10	10.70	9.40	0.00	77.83
(ii)	Project Implementation (1%)	12.31	16.55	5.35	4.70	0.00	38.91
(iii)	DPR preparation (1%)	12.31	16.55	5.35	4.70	0.00	38.91
(iv)	Capacity Building (1%)	12.31	16.55	5.35	4.70	0.00	38.91
(v)	Off-site costing (1%)	12.31	16.55	5.35	4.70	0.00	38.91
	Subtotal C	**73.86**	**99.30**	**32.10**	**28.21**	**0.00**	**233.48**
D	**Total Investment Cost (A+B+C)**	**73.86**	**99.30**	**32.10**	**28.21**	**0.00**	**4124.73**

The numbers of slums proposed under In-situ mode of development in Kannauj city are 8. Among these, development and rehabilitation process has to be handled during first year 2 slums, 4 in second, 3rd year is one, and 4th year year 1 slum. The total investment requirement is 4124.73 lakhs of which housing component alone costs 3455.17 lakhs, Infrastructure (physical & social) is estimated to be 436.10 lakhs and other costs accounts for 233.48 lakhs.

Table 7- 2 : Detailed Investment plan for Up-gradation mode – Curative (in lakhs)

Up-gradation							
S. No	ITEM	Year (Rs. In Lakhs)					Total
		1st Year	2nd Year	3rd Year	4th Year	5th Year	
	No. of slums proposed for Intervention	0	0	5	3	1	9
A	**Land Cost**	NA					
B	**Infrastructure**						
(i)	Physical Infrastructure (Like water supply, sewer, storm water drainage, solid waste management, roads & drainage boundary walls & gare, street lights, etc,)	0.00	0.00	316.31	240.81	82.88	639.99
(ii)	Housing (Construction of Du's)	0.00	0.00	1487.28	742.19	545.76	2775.23
(iii)	Social Infrastructure (like community halls, Balwadi/school common toilet & bath etc. Market. Shopping play area/park and parking	0.00	0.00	15.05	8.75	3.32	27.12
	Sub Total B	**0.00**	**0.00**	**1818.64**	**991.75**	**631.96**	**3442.34**
C	**Other costs**						
(i)	Operation & maintenance (2%)	0.00	0.00	36.37	19.83	12.64	68.85
(ii)	Project Implementation (1%)	0.00	0.00	18.19	9.92	6.32	34.42
(iii)	DPR preparation (1%)	0.00	0.00	18.19	9.92	6.32	34.42
(iv)	Capacity building (1%)	0.00	0.00	18.19	9.92	6.32	34.41
(v)	Off-site costing (1%)	0.00	0.00	18.19	9.92	6.32	34.41
	Subtotal C	**0.00**	**0.00**	**109.12**	**59.50**	**37.92**	**206.54**
	Total Investment Cost (A+B+C+D)	**0.00**	**0.00**	**1927.77**	**1051.25**	**669.87**	**3648.88**

The total numbers of slums proposed under up-gradation mode of development in Kannauj city are 9. Among these, development and rehabilitation process has to be handled during the five years for no slums in first, no slums in second, 5 in third, 3 in fourth and 1 in fifth year of implementation phase. The total investment requirement is 3648.88 lakhs of which housing component alone costs 2775.23 lakhs, Infrastructure (physical & social) is estimated to be 667.12 lakhs and other costs accounts for 206.54 lakhs.

Table 7- 3 : Detailed Investment plan for Preventive Section (in lakhs)

Preventive							
S. No	ITEM	Year (Rs. In Lakhs)					Total
		1st Year	2nd Year	3rd Year	4th Year	5th Year	
	Number of HHs proposed	148	163	178	196	215	900
A	**Housing Cost**	598.67	691.41	793.88	916.93	1059.02	4059.91
	Sub Total A	**598.67**	**691.41**	**793.88**	**916.93**	**1059.02**	**4059.91**
B	**Other costs**						
(i)	Operation & maintenance (2%)	11.97	13.83	15.88	18.34	21.18	81.20
(ii)	Off-site costing (1%)	5.99	6.91	7.94	9.17	10.59	40.60
(iii)	Capacity building (1%) & other escalations (1%)	11.97	13.83	15.88	18.34	21.18	81.20
	SubTotal B	**29.93**	**34.57**	**39.69**	**45.85**	**52.95**	**203.00**
C	**Total Investment Cost (A+B)**	**628.6**	**725.98**	**833.58**	**962.78**	**1111.97**	**4262.91**

The total numbers of Households estimated under Preventive section are 900. Among these, construction and development has to be handled for 148 households in first, 163 in second, 178 in third, 196 in fourth and 215 in fifth year of implementation phase. The total investment requirement is 4262.91 lakhs of which housing component costs 4059.91 lakhs and other costs accounts for 203.00 lakhs.

7.3.2 Summary of Investments

Table 7- 4 : Summary Investments

Sector	Estimated costing for existing slums	Estimated costing under preventive section	Total Project Cost
Housing	**6230.40**	**4059.91**	**10290.31**
Water Supply	**63.76**	**0.00**	**63.76**
Sanitation	**576.21**	**0.00**	**576.21**
Solid waste management	**6.12**	**0.00**	**6.12**
Roads	**348.57**	**0.00**	**348.57**
Street Lighting	**62.49**	**0.00**	**62.49**
Education	**0.00**	**0.00**	**0.00**
Health	**0.00**	**0.00**	**0.00**
Social development	**46.04**	**0.00**	**46.04**
Others	**440.02**	**203.00**	**643.02**
Total	**7773.60**	**4262.91**	**12036.51**

The present Plan of Action proposed the investment details in two segments:

i) **₹7773.60 Lakhs** towards Slum Rehabilitation and

ii) **₹ 4262.91 Lakhs** towards prevention of slums in future. To make slum free Kannauj the overall cost is estimated tentatively at a value of **₹12036.51** lakhs. **(₹120.36 Crores)**

For slum wise line estimates of slum rehabilitation please refer **Annexure 2E**

7.3.3 Financing Structure

Implementing slum free city requires the concerned authorities to develop a legal framework based policy for internal earmarking of funds, ensuring the preparation of separate budget for urban poor, creating BSUP Fund etc.

For the cities with population less than 5 lakhs, 75% of the total cost for Housing and Infrastructure provision in slums would be borne by the Centre (Government of India). Land cost will not be admissible for Central Government funding under the scheme. 15% of the project cost for provision of Housing and Infrastructure facilities would be contributed by State Government. The remaining 10% of the cost for provision of Infrastructure has to be contributed by the ULB. Funds available under MPLAD/MLALAD may be used as a substitute for ULB share. The ULB share can also be borne by the State or vice versa. In order to bring sense of ownership among beneficiaries, the remaining 10% of the share for Housing is proposed to be contributed by the beneficiaries. The beneficiary contributions provided at the minimum of 10% in the case of SC/ST/OBC/PH/single woman/other weaker and vulnerable sections and 12% in case of general category.

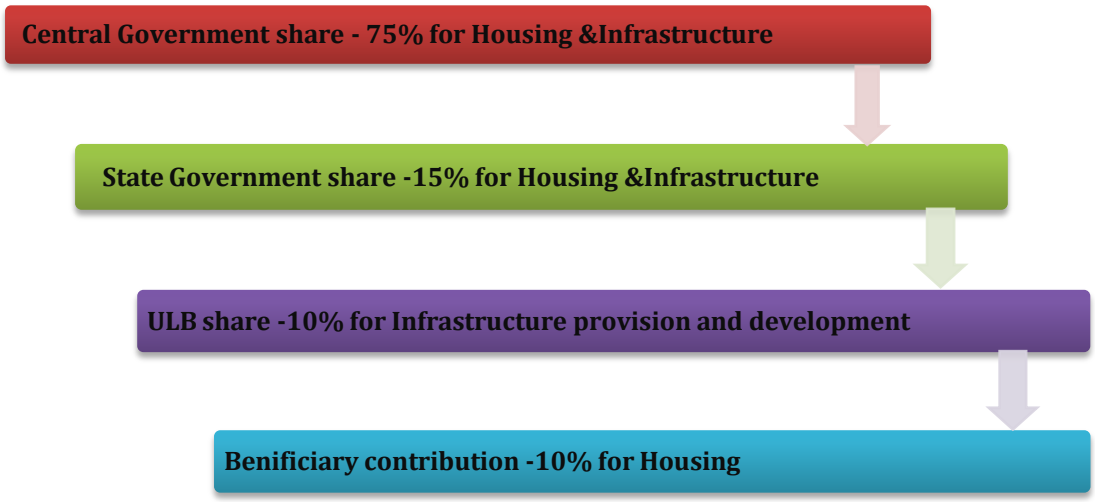


Chart 7-1 : Financing Structure

The states / ULBs are encouraged to use PPP models innovatively to generate resources for slum housing through land use concessions, etc to the private industry partners, and use of the central share as viability gap funding. States which demonstrate an innovative use of PPP models resulting in utilization of less than the specified central share of 50% in any project shall be incentivized by allowing them to use this saving in other projects in the city.

Maintenance of the assets created under the scheme should preferably be carried out by the beneficiary or their association, if necessary, in partnership with ULBs. Upto 4% of the project cost is permissible as O&M fund under the scheme. Central Government will contribute one-time to this O&M fund in the applicable ratio for the city i.e. 75:25 for cities with population less than 5 lakh. 5% of the scheme allocation is earmarked for Capacity Building, Administrative & Other Expenses (A&OE) and IEC activities.

7.4 FUNDING & CREDIT OPTIONS

a. Central Government and Innovative Projects Fund

10% of the proposed RAY allocation will be earmarked for development/ redevelopment/ rehabilitation of slums on lands of Central Government/Central Government Undertakings/ Autonomous bodies created under Acts of Parliament and for Innovative/Special projects.

b. Projects for slums on Central Government Land

Slums located on the lands of Central Government / Central Government undertakings/Autonomous bodies created under the Act of Parliament are also eligible for funding. The land owning agencies will have the discretion to prepare DPR on its own or in partnership with States/UTs and concerned ULBs. In case, DPR is prepared by the land owning agency on its own and no State/UT share is envisaged, then DPR may be directly submitted for consideration to the Ministry.

c. Innovative Projects

States/UTs are encouraged to come up with innovative projects for which fund is earmarked. The key objective is to incentivize innovation and encourage new approaches and solutions to improve the quality and quantity of shelter and services for the urban poor/slum dwellers. The innovative approaches may include:

- Innovations in planning, demonstrating integrated livelihoods, shelter and services or convergence
- Innovative or cost effective and green building design and technologies
- Financial innovation in the delivery of city/state wide programmes (e.g. community fund, incremental savings etc.)
- Funding pattern and process involved would be similar to those applicable under RAY.

d. Affordable Housing in Partnership (AHP) Scheme

In order to increase affordable housing stock, as part of the preventive strategy, Affordable Housing in Partnership (AHP) will be implemented as part of the scheme. Central support will be provided at the rate of ₹ 75,000 per EWS/LIG DUs of size upto 40 Sq.m. for housing and internal development components in affordable housing projects taken up under various kinds of partnerships. A project size of minimum 250 dwelling units will be considered under the scheme. The DUs would be a mix of EWS/LIG-A/LIG-B/Higher Categories/Commercial of which at least 60 percent of the FAR/ FSI will be used for dwelling units of carpet area of not more than 60 Sq.m. Detailed Guidelines for AHP scheme are issued by MoHUPA separately.

e. Access to Credit

It is widely recognized that significant credit is not flowing from banks and financial institutions to the urban poor for housing. Following measures are undertaken to improve access to credit for EWS/LIG housing:

i. Rajiv Rinn Yojana (RRY)

The Interest Subsidy Scheme for Housing the Urban Poor (ISHUP) is proposed to be continued as a Central Sector Scheme and be called **Rajiv Rinn Yojana (RRY)** in the 12th Plan period. It will provide interest subsidy of 5% on long tenure loans of 15-20 years limited to ₹ 5 lakh borrowed by the EWS/LIG; with ceiling of ₹ 8 lakh loan for LIG making housing loan cheaper for this segment. Projects and beneficiaries getting assistance under RAY would also be eligible for assistance under RRY. Detailed Guidelines for RRY are issued by MoHUPA separately.

ii. Credit Risk Guarantee Fund (CRGF)

A Credit Risk Guarantee Fund has been created to guarantee the lending agencies for loans to new EWS/LIG borrowers in urban areas seeking individual housing loans not exceeding a sum of ₹ 5 lakh for a housing unit of size up to 430 sq. ft (40 Sq.m) carpet areas without any third party guarantee or collateral security. The fund is operated by National Housing Bank.

The CRGF would enable the lending institutions to avail coverage upto 85% for loans from ₹ 2 lakhs to ₹ 5 lakhs and 90% in case of loans upto ₹ 2 lakhs. Further, it also benefits lending institutions by way of reduced risk weight age and provisioning norms as allowed by RBI for such loan guaranteed by the CRGF. The CRGF is expected to catalyse a flow of credit to the low income housing sector and create enabling environment for creation of affordable housing stock.

7.5 REFORMS

RAY is a reform driven scheme. Apart from mandatory reforms, the scheme envisages to encourage optional reforms. In order to encourage States/UTs to take up optional reforms, a Reform Incentive Fund (RIF) has been constituted. RIF is constituted out of funds remaining unutilized by States/UTs against their allocation for initial three years from the date of approval of the scheme. States/UTs carrying out optional reforms successfully will be eligible to pose projects for funding under this fund after three years of implementation of the scheme.

RAY envisages reforms in urban governance by way of improving capacities, bringing in fiscal prudence, creation of land bank, simplified processes and procedures for creation of affordable housing stock, bringing in inclusive planning and providing security of tenure. Reforms are divided into mandatory reforms and optional reforms.

a. Mandatory Reforms

- Reservation of 15% of residential FAR/FSI or 35% of dwelling units for EWS/LIG categories whichever is higher, with a system of cross subsidization in all future housing projects in accordance with guidelines to be prescribed by MoHUPA. However, where Mission cities have given property rights or reserved land as per reform conditionalities under JNNURM and such orders/reservation is superior to the above, these reforms will not apply.
- A non-lapsable earmarking of 25% of the budget of the municipality to provide basic services to the urban poor
- Creating and establishing a municipal cadre for social/community development and urban poverty alleviation during the plan period.

b. Optional Reforms

- Formulation of State Policy for Affordable Housing.
- Amendments of Master Plans to provide for inclusive growth through inclusionary zoning and other measures for inclusive development.
- Simplification of the processes and procedures of sanctioning buildings and building byelaws concerning development and housing projects to provide single window based quick approvals in order to reduce transaction costs;
- Amendments in the Rent Control Act balancing the interest of landlords and tenants.

7.6 MONITORING & REVIEW

RAY would be monitored at three levels: City, State and Government of India. The following agencies and departments would be monitoring at their respective levels:

- Ministry of Housing and Urban Poverty Alleviation will periodically monitor the scheme.
- State Nodal Agency would send Quarterly Progress Report (on-line) to the Ministry of Housing and Urban Poverty Alleviation. Upon completion of a project, the State Nodal Agency, through the State Government, would submit completion report to the Central Government.
- Central Sanctioning-cum-Monitoring Committee will meet as often as required to sanction and review/monitor the progress of projects sanctioned under the Mission.
- Monitoring of quality of projects executed by the implementing agencies in the States/Cities will be facilitated through independent quality control/ assurance/ third party teams at various levels that may be outsourced to specialized/technical agencies.
- Monitoring of projects by States/Urban Local Bodies by conducting Social Audit in conformity with guidelines to be prescribed, right from the stage of project preparation.
- The processes of implementation will be monitored by undertaking concurrent evaluation through reputed independent institutions to ensure that corrections to distortions, oversights or shortcomings can be made in time.

LIST OF ANNEXURES

List of Participants attended to the Stakeholder Workshop / Meeting

Stakeholder Workshop on Rajiv Awas Yojana (RAY)
Slum Free City Plan of Action – Kannauj city, Uttar Pradesh
04-10-2013 at VIKAS BHAVAN, KANNAUJ

District urban Development Authority (DUDA) – Kannauj Nagar Palika Parishad – Regional Centre for Urban and Environmental Studies (RCUES), Hyderabad

S.No	Name	Designation	Phone no.	Signature
1.	S.K. Srivastava	P.O DUDA	8573002287	
2.	S. K. Tiwari	E.O. N.P.P. Kannauj	9412715483	
3	Sunil Kumar	A.P.S. U.P. Jal Nigam Kannauj	9532501606	Sunil Kumar
4	निर्मलेश कुमारी			निर्मलेश कुमारी
5	आसिया			आसिया
6	इबैदुल हसन			इबैदुल हसन
7	प्रेमचन्द [illegible]			
8	MUKESH KUMAR SAINI	MEMBER OF N.P.P.	9889180070	मुकेश कुमार सैनी
9	शिवचन्द्र कुशवाहा	सभासद वार्ड 12	8005299450	शिवचन्द्र कुशवाहा
10.	श्याम तिवारी	सभासद 11	9918272020	श्याम तिवारी
11.	Suman	Member of NPP Kannauj 04	9455065299	Suman
12	शाहिदा बेगम	सी.डी.एस [illegible]	9369565506	शाहिदा बेगम
13.	शशिप्रभा	सी.डी.एस कन्नौज	9935158080	Shashi Prabha
14.	विनय कुमार प्रजापति	सभासद	9044177131	विनय कुमार
15	[illegible]	सभासद	9415471624	
16	Mohd. Hasan Hasami	Member of N.P.P.	9838635855	
17	मीरा कुशवाहा	सभासद Kannauj	8126338488	मीरा
18	गीता [illegible]	सी.डी.एस [illegible]	9598926171	गीता
19	[illegible]	[illegible]	9450432290	
20	सरोज पाठक	[illegible]	9415147244	Saroj Pathak
21	पवन कुमार अवस्थी	सभासद	9889422831	P.K. AWASTHI
22.	राजेश दिवाकर	सभासद		राजेश
23.	पुनीत गुप्ता	सभासद		
24	रेहान खाँ	सभासद		रेहान खाँ

SLUM PROFILE

(DATA ANALYSIS AND PROPOSALS)

Annexure 1A
Annexure 1B
Annexure 1C
Annexure 1D
Annexure 1E
Annexure 1F
Annexure 2A
Annexure 2B
Annexure 2C
Annexure 2D
Annexure 2E

Annexure 1A

Sl. No	Name of Slum	Ward No	Status	Tenability	Ownership of land	Tenure status
1	AKBARPUR SARAYA GHAG	01/mahathmagandhi	Non-notified	Tenable	state government	Secure
2	LODHPUR(HARIJANA BASTHI)	02/rammanohar lohiya	Non-notified	Tenable	private	Secure
3	MOSAMPUR ALAHAT	02/rammanohar lohiya	Non-notified	Tenable	state government	Secure
4	KAZITOLA	03/santhkavijayasi	Non-notified	Tenable	private	Secure
5	AMBEDKAR NAGAR	04/Bhimarao ambedkar	Non-notified	Tenable	Local body	Secure
6	KAZIPURA	05/Barthendud harichandra	Non-notified	Semi-Tenable	private	Secure
7	MUBARAK PUTTILA	05/Bharathendu harichandra	Non-notified	Tenable	private	Secure
8	DIDARGUNG	07/mahavir	Non-notified	Semi-Tenable	Local body	Secure
9	SARAYA BAHADUR	08/jayashankar prasad	Non-notified	Tenable	private	Secure
10	SHAKEPURA	10/chandrashekar azad	Non-notified	Tenable	private	Secure
11	TAKEDARWALI GALLI	11/rani ahalyabai	Non-notified	Tenable	private	Secure
12	ALLAUDINPUR	12/Jawaharlal nehru	Non-notified	Tenable	private	Secure
13	BALAPIR	13/indira gandhi	Non-notified	Tenable	private	Secure
14	ARRARAWARI	18/Babu jayapraksh narayan	Non-notified	Semi-Tenable	private	Secure
15	KACHERITOLA+BAGIYAFAGEL IMAM	18/Babu jayapraksh narayan	Non-notified	Tenable	Local body	Secure
16	HAZIGUNJ KURDH	19/santh khabir	Non-notified	Semi-Tenable	private	Secure
17	YUSAFPUR BHAGAVAN	20/maharani lakshmi bai	Non-notified	Tenable	private	Secure

Annexure 1B

Sl. No	Name of Slum	Slum area (Sq.Meters)	Whether located in Core City/Town or Fringe area	Type of Area surrounding Slum	Physical Location of Slum	Whether the Slum is prone to flooding due to rains?	Dwelling Units				Dwelling Units with electricity			
							Pucca (No.)	Semi-Pucca (No)	Katcha (No.)	Total (No.)	Pucca (No.)	Semi-Pucca (No)	Katcha (No.)	Total (No.)
1	AKBARPUR SARAYA GHAG	15139.34	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	37	25	24	86	26	15	4	45
2	LODHPUR(HARIJANA BASTHI)	7940.03	Fringe	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	6	37	20	63	2	8	2	12
3	MOSAMPUR ALAHAT	3156.00	Fringe	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	6	62	69	137	4	30	25	59
4	KAZITOLA	19771.71	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	41	25	18	84	18	5	2	25
5	AMBEDKAR NAGAR	15393.81	Core	Residential	Along Railway line	Not Prone	68	72	34	174	62	33	16	111
6	KAZIPURA	45471.02	Fringe	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	7	67	61	135	3	5	2	10
7	MUBARAK PUTTILA	28328.28	Fringe	Residential	Along Major Nallah	Not Prone	0	22	62	84	0	1	9	10
8	DIDARGUNG	13165.62	Fringe	Residential	Along Major Nallah	Not Prone	14	6	24	44	11	1	3	15
9	SARAYA BAHADUR	9384.98	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	40	20	12	72	19	4	3	26
10	SHAKEPURA	16728.03	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	4	45	15	64	3	17	2	22
11	TAKEDARWALI GALLI	3917.97	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	5	12	9	26	5	6	1	12
12	ALLAUDINPUR	26137.43	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	58	52	76	186	40	24	10	74
13	BALAPIR	8294.93	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	22	12	11	45	16	2	0	18
14	ARRARAWARI	19988.45	Fringe	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	13	16	26	55	8	6	13	27
15	ACHERITOLA+BAGIYAFAGEL IMA	22204.32	Core	Residential	Along Major Nallah	Not Prone	25	23	43	91	22	5	12	39
16	HAZIGUNJ KURDH	11095.06	Fringe	Residential	Along Major Nallah	Not Prone	11	38	6	55	4	15	0	19
17	YUSAFPUR BHAGAVAN	32170.65	Core	Residential	Others (Non- Hazardous/Non-objectionable)	Not Prone	82	75	61	218	64	51	15	130
	Total						**439**	**609**	**571**	**1619**	**307**	**228**	**119**	**654**

Annexure 1C

Sl. No	Name of Slum	Total Slum Population	BPL Population	No of HHs	No of BPL HHs	Density
1	AKBARPUR SARAYA GHAG	545	153	86	86	Low Density
2	LODHPUR(HARIJANA BASTHI)	285	0	63	63	Low Density
3	MOSAMPUR ALAHAT	1052	68	221	221	Medium Density
4	KAZITOLA	754	57	133	133	Low Density
5	AMBEDKAR NAGAR	1285	176	208	208	Low Density
6	KAZIPURA	683	90	135	135	Low Density
7	MUBARAK PUTTILA	465	72	84	84	Low Density
8	DIDARGUNG	327	0	50	50	Low Density
9	SARAYA BAHADUR	440	11	85	85	Low Density
10	SHAKEPURA	626	80	108	108	Low Density
11	TAKEDARWALI GALLI	200	8	32	32	Low Density
12	ALLAUDINPUR	1122	58	195	195	Low Density
13	BALAPIR	337	0	53	53	Low Density
14	ARRARAWARI	393	20	77	77	Low Density
15	KACHERITOLA+BAGIYAFAGEL IMAM	728	10	117	117	Low Density
16	HAZIGUNJ KURDH	359	27	55	55	Low Density
17	YUSAFPUR BHAGAVAN	1673	79	218	218	Low Density

Annexure 1D

Sl. No	Name of Slum	Monthly income No of HHs							Occupational status No of HHs					
		Less than Rs.500	Rs.500 - Rs.1000	Rs.1000 - Rs.1500	Rs.1500 - Rs.2000	Rs.2000 - Rs.3000	More than Rs.3000	Total	Self-employed	Salaried	Regular wage	Casual labour	Others	Total
1	AKBARPUR SARAYA GHAG	0	0	3	3	37	43	86	22	20	4	40	0	86
2	LODHPUR(HARIJANA BASTHI)	0	3	17	33	2	8	63	1	17	0	44	1	63
3	MOSAMPUR ALAHAT	0	4	89	121	7	0	221	3	4	2	209	3	221
4	KAZITOLA	2	0	4	28	96	3	133	2	2	2	106	21	133
5	AMBEDKAR NAGAR	0	0	1	25	122	60	208	13	26	15	150	4	208
6	KAZIPURA	0	8	6	47	65	9	135	3	1	2	128	1	135
7	MUBARAK PUTTILA	0	7	6	37	34	0	84	4	1	0	79	0	84
8	DIDARGUNG	0	12	12	14	10	2	50	0	8	24	18	0	50
9	SARAYA BAHADUR	0	0	0	6	73	6	85	0	2	1	75	7	85
10	SHAKEPURA	0	0	8	18	82	0	108	7	8	82	11	0	108
11	TAKEDARWALI GALLI	0	4	22	2	2	2	32	11	0	1	20	0	32
12	ALLAUDINPUR	0	0	1	28	157	9	195	10	2	51	131	1	195
13	BALAPIR	0	4	3	4	31	11	53	0	1	5	24	23	53
14	ARRARAWARI	0	0	0	77	0	0	77	0	1	0	75	1	77
15	KACHERITOLA+BAGIYAFAGEL IMAM	0	4	0	102	10	1	117	4	8	0	104	1	117
16	HAZIGUNJ KURDH	0	6	42	6	1	0	55	2	0	7	46	0	55
17	YUSAFPUR BHAGAVAN	0	12	62	32	23	89	218	12	17	2	187	0	218
	Total	**2**	**64**	**276**	**583**	**752**	**243**	**1920**	**94**	**118**	**198**	**1447**	**63**	**1920**

Annexure 1E

Sl. No	Name of Slum	Source of Drinking water								Existing Situation				Drainage and Sewerage facility			
		Individual tap	Public tap	Tubewell/ Borewell/ HandPump	Open well	Tank/ Pond	River/ Canal/ Lake/ Spring	Water Tanker	Others	No. of individual taps	No. of public taps	No. of tube wells / bore wells/ hand pumps	Duration of water supply	Connectivity to City-wide Water Supply System_	Stormwater Drainage_No.of HHs having access to	Connected to City wide Sewerage system	Connected to City wide Storm water Drainage system
1	AKBARPUR SARAYA GHAG	9	20	4	0	0	0	0	53	9	10	3	1-2 hrs Daily	Fully Connected	86	Not Connected	Fully Connected
2	LODHPUR(HARIJANA BASTHI)	0	15	48	0	0	0	0	0	0	2	5	1-2 hrs Daily	Not Connected	63	Not Connected	Fully Connected
3	MOSAMPUR ALAHAT	20	147	40	0	0	0	0	14	5	5	6	More than 2hrs daily	Fully Connected	221	Not Connected	Fully Connected
4	KAZITOLA	47	5	76	0	0	0	0	5	35	1	7	More than 2hrs daily	Fully Connected	133	Not Connected	Fully Connected
5	AMBEDKAR NAGAR	156	38	14	0	0	0	0	0	140	4	3	More than 2hrs daily	Fully Connected	208	Not Connected	Fully Connected
6	KAZIPURA	2	21	111	1	0	0	0	0	2	10	7	1-2 hrs Daily	Partially Connected	135	Not Connected	Fully Connected
7	MUBARAK PUTTILA	4	5	74	1	0	0	0	0	4	1	6	More than 2hrs daily	Partially Connected	84	Not Connected	Partially Connected
8	DIDARGUNG	0	31	19	0	0	0	0	0	0	20	12	More than 2hrs daily	Fully Connected	50	Not Connected	Fully Connected
9	SARAYA BAHADUR	45	0	40	0	0	0	0	0	30	0	2	More than 2hrs daily	Fully Connected	85	Not Connected	Fully Connected

Annexure 1E

Sl. No	Name of Slum	Source of Drinking water								Existing Situation				Drainage and Sewerage facility			
		Individual tap	Public tap	Tubewell/ Borewell/ HandPump	Open well	Tank/ Pond	River/ Canal/ Lake/ Spring	Water Tanker	Others	No. of individual taps	No. of public taps	No. of tube wells / bore wells/ hand pumps	Duration of water supply	Connectivity to City-wide Water Supply System_	Stormwater Drainage_No.of HHs having access to	Connected to City wide Sewerage system	Connected to City wide Storm water Drainage system
10	SHAKEPURA	23	35	40	0	0	0	0	10	7	3	5	1-2 hrs Daily	Fully Connected	108	Not Connected	Fully Connected
11	TAKEDARWALI GALLI	0	26	6	0	0	0	0	0	0	3	2	More than 2hrs daily	Fully Connected	32	Not Connected	Fully Connected
12	ALLAUDINPUR	118	18	58	0	1	0	0	0	100	5	25	More than 2hrs daily	Fully Connected	195	Not Connected	Fully Connected
13	BALAPIR	18	0	35	0	0	0	0	0	9	0	3	1-2 hrs Daily	Fully Connected	53	Not Connected	Fully Connected
14	ARRARAWARI	37	10	10	1	0	0	0	19	20	2	2	More than 2hrs daily	Fully Connected	77	Not Connected	Fully Connected
15	ACHERITOLA+BAGIYAFAGEL IMA	43	33	24	0	0	0	0	17	15	5	5	More than 2hrs daily	Fully Connected	117	Not Connected	Fully Connected
16	HAZIGUNJ KURDH	3	6	43	0	0	0	0	3	2	0	3	1-2 hrs Daily	Not Connected	0	Not Connected	Not Connected
17	YUSAFPUR BHAGAVAN	173	8	27	0	0	0	0	10	100	2	10	More than 2hrs daily	Fully Connected	218	Not Connected	Fully Connected

Annexure 1E

Sl. No	Name of Slum	Sanitation										Solid Waste management		
		Public-Septic tank/ Flush	Public-Service Latrine	Public-Pit	Shared-Septic tank/ Flush	Shared-Service Latrine	Shared-Pit	Own-Septic tank/ Flush	Own-Service Latrine	Own-Pit	Open defecation	Arrangement of Garbage Disposal	Frequency of Disposal	Frequency of Clearence of Open drains
1	AKBARPUR SARAYA GHAG	0	0	0	0	0	0	22	0	0	64	Municipal Staff	Daily	Daily
2	LODHPUR(HARIJANA BASTHI)	0	0	0	0	0	0	4	0	0	59	Municipal Staff	Daily	Daily
3	MOSAMPUR ALAHAT	0	0	0	0	0	0	7	0	3	211	Municipal Staff	Daily	Daily
4	KAZITOLA	0	0	0	0	0	0	37	0	5	91	Municipal Staff	Daily	Daily
5	AMBEDKAR NAGAR	0	0	0	0	0	0	98	0	0	110	Municipal Staff	Daily	Daily
6	KAZIPURA	0	0	0	0	0	0	1	0	12	122	Municipal Staff	Daily	Daily
7	MUBARAK PUTTILA	0	0	0	0	0	0	0	0	2	82	Municipal Staff	Daily	Daily
8	DIDARGUNG	0	0	0	0	0	0	10	0	1	39	Municipal Staff	Daily	Daily
9	SARAYA BAHADUR	0	0	0	0	0	0	30	0	0	55	Municipal Staff	Daily	Daily

Annexure 1E

Sl. No	Name of Slum	Sanitation										Solid Waste management		
		Public-Septic tank/ Flush	Public-Service Latrine	Public-Pit	Shared-Septic tank/ Flush	Shared-Service Latrine	Shared-Pit	Own-Septic tank/ Flush	Own-Service Latrine	Own-Pit	Open defecation	Arrangement of Garbage Disposal	Frequency of Disposal	Frequency of Clearence of Open drains
10	SHAKEPURA	0	0	0	0	0	0	10	0	13	85	Municipal Staff	Daily	Daily
11	TAKEDARWALI GALLI	0	0	0	0	0	0	9	0	0	23	Municipal Staff	Daily	Daily
12	ALLAUDINPUR	0	0	0	0	0	0	12	0	72	111	Municipal Staff	Daily	Daily
13	BALAPIR	0	0	0	0	0	0	22	0	4	27	Municipal Staff	Daily	Daily
14	ARRARAWARI	0	0	0	0	0	0	28	0	0	49	Municipal Staff	Daily	Daily
15	ACHERITOLA+BAGIYAFAGEL IMA	0	0	0	0	0	0	56	0	0	61	Municipal Staff	Daily	Daily
16	HAZIGUNJ KURDH	0	0	0	0	0	0	11	0	4	40	Municipal Staff	Once in a Week	No Clearance
17	YUSAFPUR BHAGAVAN	0	0	0	0	0	0	114	0	29	75	Municipal Staff	Daily	Daily

Annexure- 1F

Sl. No	Name of Slum	Roads			Availability of Street light	Educational facilites									Health Facilities						
		Approach Road/Lane/Constructed Path to the	Distance from the nearest Motorable Road	Internal road		Pre-primary School_Anganwadi under ICDS	Pre-primary School_Municipal Pre-	Pre-primary School_Private Pre-School	Primary School_Municipal	Primary School_State Government	Primary School_Private	High School_Municipal	High School_State Government	High School_ Private	Urban Health Post	Primary Health Centre	Government Hospital	Maternity Centre	Private Clinic	Registered Medical Practitioner (RMP)	Ayurvedic Doctor/ Vaidhya
1	AKBARPUR SARAYA GHAG	Motorable pucca	Less than 0.5 kms	Motorable kutcha	Yes	With in the slum area	NA	More than 5.0 kms	NA	0.5km to 1.0 kms	More than 5.0 kms	NA	2.0 kms to 5.0 kms	1.0 km to 2.0 km	less than 0.5 km	0.5km to 1.0 kms	2.0 kms to 5.0 kms	2.0 kms to 5.0 kms	More than 5.0 kms	More than 5.0 kms	More than 5.0 kms
2	LODHPUR(HARIJANA BASTHI)	Motorable pucca	Less than 0.5 kms	Motorable pucca	Yes	With in the slum area	NA	More than 5.0 kms	NA	Less than 0.5.0 kms	More than 5.0 kms	NA	1.0 km to 2.0 km	More than 5.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.kms	More than 5.0 kms	1.0 kms to 2.0 kms
3	MOSAMPUR ALAHAT	Motorable pucca	Less than 0.5 kms	Motorable pucca	Yes	With in the slum area	NA	More than 5.0 kms	NA	Less than 0.5.0 kms	More than 5.0 kms	NA	0.5km to 1.0 kms	More than 5.0 kms	With in the slum area	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	More than 5.0 kms	More than 5.0 kms	More than 5.0 kms
4	KAZITOLA	Motorable pucca	Less than 0.5 kms	Non-Motorable pucca	Yes	With in the slum area	NA	More than 5.0 kms	NA	With in the slum area	less than 0.5 km	NA	Less than 0.5.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms	0.5km to 1.0 kms	0.5 km 1.0 km	1.0 kms to 2.0 kms	Less than 0.5.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms
5	AMBEDKAR NAGAR	Motorable pucca	Less than 0.5 kms	Motorable pucca	Yes	0.5 km to 1.0 km	NA	More than 5.0 kms	NA	More than 5.0 kms	less than 0.5 km	NA	Less than 0.5.0 kms	More than 5.0 kms	2.0 kms to 5.0 kms	0.5km to 1.0 kms	0.5 km 1.0 km	0.5km to 1.0 kms	Less than 0.5.0 kms	with in the slum area	More than 5.0 kms
6	KAZIPURA	Non-Motorable pucca	Less than 0.5 kms	Motorable kutcha	Yes	With in the slum area	NA	More than 5.0 kms	NA	0.5km to 1.0 kms	less than 0.5 km	NA	1.0 km to 2.0 km	More than 5.0 kms	0.5km to 1.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.0 kms	More than 5.0 kms	More than 5.0 kms
7	MUBARAK PUTTILA	Motorable pucca	Less than 0.5 kms	Motorable kutcha	Yes	With in the slum area	NA	less than 0.5 km	NA	Less than 0.5.0 kms	More than 5.0 kms	NA	2.0 kms to 5.0 kms	More than 5.0 kms	0.5km to 1.0 kms	2.0 kms to 5.0 kms	2.0 kms to 5.0 kms	2.0 kms to 5.0 kms	With in the slum area	More than 5.0 kms	More than 5.0 kms
8	DIDARGUNG	Motorable pucca	Less than 0.5 kms	Non motorable kutcha	Yes	With in the slum area	NA	More than 5.0 kms	NA	Less than 0.5.0 kms	less than 0.5 km	NA	2.0 kms to 5.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.kms	More than 5.0 kms	1.0 kms to 2.0 kms
9	SARAYA BAHADUR	Motorable pucca	Less than 0.5 kms	Non-Motorable pucca	Yes	With in the slum area	NA	More than 5.0 kms	NA	Less than 0.5.0 kms	More than 5.0 kms	NA	Less than 0.5.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.0 kms	More than 5.0 kms	More than 5.0 kms

Annexure- 1F

Sl. No	Name of Slum	Roads			Availability of Street light	Educational facilites									Health Facilities						
		Approach Road/Lane/Constructed Path to the	Distance from the nearest Motorable Road	Internal road		Pre-primary School_Anganwadi under ICDS	Pre-primary School_Municipal Pre-	Pre-primary School_Private Pre-School	Primary School_Municipal	Primary School_State Government	Primary School_Private	High School_Municipal	High School_State Government	High School_ Private	Urban Health Post	Primary Health Centre	Government Hospital	Maternity Centre	Private Clinic	Registered Medical Practitioner (RMP)	Ayurvedic Doctor/ Vaidhya
10	SHAKEPURA	Motorable pucca	Less than 0.5 kms	Motorable pucca	Yes	With in the slum area	NA	With in the slum area	NA	More than 5.0 kms	less than 0.5 km	NA	0.5km to 1.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms	0.5km to 1.0 kms	0.5 km 1.0 km	0.5km to 1.0 kms	With in the slum area	More than 5.0 kms	More than 5.0 kms
11	TAKEDARWALI GALLI	Motorable pucca	Less than 0.5 kms	Non-Motorable pucca	Yes	With in the slum area	NA	1.0 km to 2.0 kms	NA	Less than 0.5.0 kms	0.5km to 1.0 kms	NA	0.5km to 1.0 kms	1.0 km to 2.0 km	2.0 kms to 5.0 kms	0.5km to 1.0 kms	2.0 kms to 5.0 kms	2.0 kms to 5.0 kms	Less than 0.5.0 kms	Less than 0.5.0 kms	More than 5.0 kms
12	ALLAUDINPUR	Motorable pucca	Less than 0.5 kms	Non motorable kutcha	Yes	With in the slum area	NA	More than 5.0 kms	NA	1.0 Kms to 2.0 kms	More than 5.0 kms	NA	0.5km to 1.0 kms	More than 5.0 kms	0.5km to 1.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.0 kms	More than 5.0 kms	More than 5.0 kms
13	BALAPIR	Motorable pucca	Less than 0.5 kms	Motorable kutcha	Yes	less than 0.5 km	NA	less than 0.5 km	NA	0.5km to 1.0 kms	less than 0.5 km	NA	0.5km to 1.0 kms	More than 5.0 kms	0.5km to 1.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.0 kms	More than 5.0 kms	More than 5.0 kms
14	ARRARAWARI	Motorable Kutcha	Less than 0.5 kms	Non-Motorable pucca	Yes	With in the slum area	NA	More than 5.0 kms	NA	Less than 0.5.0 kms	less than 0.5 km	NA	2.0 kms to 5.0 kms	less than 0.5 km	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.kms	More than 5.0 kms	More than 5.0 kms
15	KACHERITOLA+BAGIYAFAGELIMAM	Motorable pucca	Less than 0.5 kms	Motorable pucca	Yes	With in the slum area	NA	More than 5.0 kms	NA	More than 5.0 kms	More than 5.0 kms	NA	Less than 0.5.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms	0.5km to 1.0 kms	0.5 km 1.0 km	0.5km to 1.0 kms	Less than 0.5.0 kms	More than 5.0 kms	More than 5.0 kms
16	HAZIGUNJ KURDH	Motorable pucca	Less than 0.5 kms	Non motorable kutcha	No	With in the slum area	NA	More than 5.0 kms	NA	Less than 0.5.0 kms	less than 0.5 km	NA	2.0 kms to 5.0 kms	More than 5.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.kms	More than 5.0 kms	1.0 kms to 2.0 kms
17	YUSAFPUR BHAGAVAN	Motorable pucca	Less than 0.5 kms	Non-Motorable pucca	Yes	With in the slum area	NA	With in the slum area	NA	1.0 Kms to 2.0 kms	1.0 km to 2.0 kms	NA	With in the slum area	More than 5.0 kms	less than 0.5 km	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	1.0 kms to 2.0 kms	Less than 0.5.0 kms	More than 5.0 kms	More than 5.0 kms

Annexure- 1F

Sl. No	Name of Slum	Social Development/ welfare															
		Availability of facilities within slum						Pensions and Insurances									
		Community hall (No. covered)	livelihood / production Centre (No. covered)	Vocational Training / Training - cum production	Street Children Rehabilitation Centre	Night Shelter (No. covered)	Old age home (No. of Holders)	Old age pensions (No. of Holders)	Widow pensions (No. of Holders)	Disabled pensions (No. covered)	general Insurance (No. covered)	Health Insurance (No. covered)	Self Help Groups/DWCUA Groups in Slum	Thrift and Credit Societies in Slum	Slum-dwellers Association (Yes-01, No-	Youth Associations (No. covered)	Women's Associations/Mahila Samithis
1	AKBARPUR SARAYA GHAG	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	3
2	LODHPUR(HARIJANA BASTHI)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
3	MOSAMPUR ALAHAT	1	0	0	0	0	0	3	3	0	0	0	1	0	0	0	0
4	KAZITOLA	0	0	0	0	0	0	5	5	4	0	0	0	0	0	0	3
5	AMBEDKAR NAGAR	0	0	0	0	0	0	42	6	4	0	0	2	1	0	0	7
6	KAZIPURA	0	0	0	0	0	0	6	5	0	0	0	0	0	0	0	0
7	MUBARAK PUTTILA	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0
8	DIDARGUNG	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
9	SARAYA BAHADUR	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

Annexure- 1F

Sl. No	Name of Slum	Social Development/ welfare															
		Availability of facilities within slum						Pensions and Insurances									
		Community hall (No. covered)	livelihood / production Centre (No. covered)	Vocational Training / Training - cum production	Street Children Rehabilitation Centre	Night Shelter (No. covered)	Old age home (No. of Holders)	Old age pensions (No. of Holders)	Widow pensions (No. of Holders)	Disabled pensions (No. covered)	general Insurance (No. covered)	Health Insurance (No. covered)	Self Help Groups/DWCUA Groups in Slum	Thrift and Credit Societies in Slum	Slum-dwellers Association (Yes-01, No-	Youth Associations (No. covered)	Women's Associations/Mahila Samithis
10	SHAKEPURA	0	0	0	0	0	0	5	5	1	0	0	0	0	0	0	2
11	TAKEDARWALI GALLI	0	0	0	0	0	0	2	2	0	1	0	0	0	0	0	1
12	ALLAUDINPUR	0	0	0	0	0	0	2	7	0	0	0	0	1	0	0	1
13	BALAPIR	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
14	ARRARAWARI	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0	2
15	KACHERITOLA+BAGIYAFAGEL IMAM	0	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0
16	HAZIGUNJ KURDH	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
17	YUSAFPUR BHAGAVAN	0	0	0	0	0	0	33	8	0	0	0	0	2	0	0	1

Annexure-2A

S.No	Name of Slum	Dwelling Units				Proposed Dwelling Units	HOUSING COST
		Pucca (No.)	Semi-Pucca (No)	Katcha (No.)	Total (No.)		
1	AKBARPUR SARAYA GHAG	37	25	24	*86*	49	**162.78**
2	LODHPUR(HARIJANA BASTHI)	6	37	20	63	63	**267.58**
3	MOSAMPUR ALAHAT	6	62	69	137	221	**938.64**
4	KAZITOLA	41	25	18	84	92	**354.54**
5	AMBEDKAR NAGAR	68	72	34	174	140	**463.80**
6	KAZIPURA	7	67	61	135	135	**602.05**
7	MUBARAK PUTTILA	0	22	62	84	84	**374.61**
8	DIDARGUNG	14	6	24	44	36	**147.17**
9	SARAYA BAHADUR	40	20	12	72	45	**163.89**
10	SHAKEPURA	4	45	15	64	108	**505.72**
11	TAKEDARWALI GALLI	5	12	9	26	32	**142.71**
12	ALLAUDINPUR	58	52	76	186	137	**545.76**
13	BALAPIR	22	12	11	45	31	**117.06**
14	ARRARAWARI	13	16	26	55	77	**378.59**
15	KACHERITOLA+BAGIYAFAGEL IMAM	25	23	43	91	92	**359.00**
16	HAZIGUNJ KURDH	11	38	6	55	55	**245.28**
17	YUSAFPUR BHAGAVAN	82	75	61	218	136	**461.24**
	Total	**439**	**609**	**571**	**1619**	**1533**	**6230.40**

Annexure-2B

S.No	Name of Slum	Water supply (Proposed)													SWM			Roads			
		Existing Running length of Sub line (Meters)	Proposed Running length of Sub line (Meters)	Existing Taps	Proposed Taps	Raising main (Meters)	Over head tanks	WATER SUPPLY Total Cost	Proposed Length of sewer line (meters)	Existing Length of Strom water drain(meters)	Proposed Length of Strom water drain(meters)	Existing Toilets	Proposed Toilets	SANITATION Total Cost	Existing Bins	Proposed Bins	Total Cost	Proposed length of Approch roads (mt)	Existing length of Internal roads(	Proposed length of Internal roads(mt)	Total cost
1	KBARPUR SARAYA GHA	800	835.17	9	77	231.00	0	**3.95**	1362.07	1340	22.07	22	64	**31.22**	0	3	**0.28**	34.05	670	2995.62	**24.27**
2	DHPUR(HARIJANA BAST	250	540.14	0	63	189.00	0	**2.39**	658.17	1140.00	0.00	4	0	**9.95**	0	2	**0.17**	16.45	570	0.00	**0.00**
3	MOSAMPUR ALAHAT	2600	0.00	5	221	663.00	0	**1.21**	504.96	2600.00	0.00	10	0	**7.63**	0	7	**0.59**	12.62	1300	0.00	**0.00**
4	KAZITOLA	1400	1048.57	35	98	294.00	0	**4.96**	2039.62	2600	0.00	42	91	**45.59**	0	4	**0.37**	50.99	1300	3595.61	**33.30**
5	AMBEDKAR NAGAR	2800	0.00	140	68	204.00	0	**0.41**	1117.90	3200.00	0.00	98	110	**32.64**	0	7	**0.65**	27.95	1600	0.00	**0.00**
6	KAZIPURA	2100	1577.13	2	135	405.00	0	**7.04**	3063.00	2600.00	463.00	13	0	**55.98**	0	5	**0.44**	76.57	1300	7356.52	**60.95**
7	MUBARAK PUTTILA	1600	438.01	4	84	252.00	0	**2.22**	1697.63	3200.00	0.00	2	0	**26.95**	0	3	**0.26**	42.44	1600	1438.80	**11.10**
8	DIDARGUNG	500	551.94	0	50	150.00	0	**2.60**	876.25	680	196.25	11	39	**22.84**	0	2	**0.19**	21.91	340	2200.22	**20.38**
9	SARAYA BAHADUR	780	335.94	30	55	165.00	0	**1.82**	929.56	940.00	0.00	30	55	**23.62**	0	3	**0.29**	23.24	470	2006.15	**19.51**
10	SHAKEPURA	2100	0.00	7	108	324.00	0	**0.65**	1342.40	2400.00	0.00	23	0	**22.38**	0	4	**0.37**	33.56	1200	0.00	**0.00**
11	TAKEDARWALI GALLI	800	0.00	0	32	96.00	0	**0.18**	626.45	880.00	0.00	9	0	**9.95**	0	1	**0.09**	15.66	480	862.21	**7.60**
12	ALLAUDINPUR	1200	1013.59	100	95	285.00	0	**5.29**	1843.89	1650.00	193.89	84	111	**53.03**	0	7	**0.71**	46.10	1650	1826.29	**18.65**
13	BALAPIR	1100	0.00	9	44	132.00	0	**0.28**	893.37	1930.00	0.00	26	27	**19.25**	0	2	**0.19**	22.33	965	388.14	**3.30**
14	ARRARAWARI	445	900.10	20	77	231.00	0	**4.43**	1120.45	0.00	1120.45	28	0	**39.22**	0	3	**0.29**	28.01	0	4117.64	**41.42**
15	ERITOLA+BAGIYAFAGEL	630	1831.47	15	102	306.00	0	**8.25**	2050.37	740.00	1310.37	56	61	**63.79**	0	4	**0.37**	51.26	740	0.00	**0.00**
16	HAZIGUNJ KURDH	0	1449.95	2	55	165.00	0	**6.07**	1207.79	0.00	1207.79	15	0	**38.35**	0	2	**0.18**	30.19	0	4438.64	**39.15**
17	YUSAFPUR BHAGAVAN	1800	2573.81	100	118	354.00	0	**12.01**	3643.33	4200.00	0.00	143	75	**73.80**	0	7	**0.68**	91.08	2100	7089.22	**68.94**
	Total	20905	13095.81	478	1482	4446.00	0	63.76	24977.23	30100	4514	616	633	576.2	0	66	6.12	624.43	16285	38315.05	348.57

Annexure-2C

S.No	Name of Slum	Street lights				Education Facilities							Health Facilities			Social Welfare			Parks		
		Condition of Street lights	Existing Street lights	Proposed Street lights	COST	Existing Pre - primary	Proposed Schools	Existing Pimary school	proposed pri	Existing High schools	proposed High schools	TOTAL EDUCATIONAL FACILITIES COST	Existing Primary	Proposed PHC	Cost	Existing Community halls	Proposed Community	Cost	Existing	Proposed	Cost
1	AKBARPUR SARAYA GHAG	Yes	3	35	**4.46**	1	0	1	0	0	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.01**
2	LODHPUR(HARIJANA BASTHI)	Yes	18	0	**0.00**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	794.0	**2.17**
3	MOSAMPUR ALAHAT	Yes	42	0	**0.00**	1	0	1	0	1	0	**0.00**	1	0	0.00	1	0	0.00	0	315.6	**0.86**
4	KAZITOLA	Yes	8	49	**6.24**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.01**
5	AMBEDKAR NAGAR	Yes	11	20	**2.55**	0	0	0	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.01**
6	KAZIPURA	Yes	27	58	**7.03**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**2.87**
7	MUBARAK PUTTILA	Yes	21	26	**3.15**	1	0	1	0	0	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**2.87**
8	DIDARGUNG	Yes	10	14	**1.78**	1	0	1	0	0	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.01**
9	SARAYA BAHADUR	Yes	6	20	**2.67**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	938.5	**2.97**
10	SHAKEPURA	Yes	16	21	**2.67**	1	0	0	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.01**
11	TAKEDARWALI GALLI	Yes	11	6	**0.73**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	391.8	**1.12**
12	ALLAUDINPUR	Yes	14	37	**5.19**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.32**
13	BALAPIR	Yes	4	21	**2.81**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	829.5	**2.62**
14	ARRARAWARI	Yes	8	23	**3.08**	1	0	1	0	0	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.16**
15	KACHERITOLA+BAGIYAFAGEL IMAM	Yes	16	41	**5.22**	1	0	0	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.01**
16	HAZIGUNJ KURDH	No	7	27	**3.27**	1	0	1	0	0	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**2.87**
17	YUSAFPUR BHAGAVAN	Yes	14	87	**11.63**	1	0	1	0	1	0	**0.00**	1	0	0.00	0	0	0.00	0	1000.0	**3.16**
	Total		**236**	**485**	**62.49**	**16**	**0**	**14**	**0**	**12**	**0**	**0.00**	**17**	**0**	**0**	**1**	**0**	**0**	**0**	**15269.4**	**46.04**

Annexure-2D

S.No	Name of Slum	Mode of Development	Ownership of land	Density	Year Wise	Final housing _Code	Infrastructure_Code	Tenure status
1	AKBARPUR SARAYA GHAG	Up Gradiation	state government	Low Density	3	Average	Average	Secure
2	LODHPUR(HARIJANA BASTHI)	In-situ Development	private	Low Density	1	Worst	Worst	Secure
3	MOSAMPUR ALAHAT	In-situ Development	state government	Medium Density	1	Worst	Worst	Secure
4	KAZITOLA	Up Gradiation	private	Low Density	3	Average	Average	Secure
5	AMBEDKAR NAGAR	Up Gradiation	Local body	Low Density	3	Average	Average	Secure
6	KAZIPURA	In-situ Development	private	Low Density	2	Worst	Worst	Secure
7	MUBARAK PUTTILA	In-situ Development	private	Low Density	2	Worst	Worst	Secure
8	DIDARGUNG	Up Gradiation	Local body	Low Density	3	Average	Worst	Secure
9	SARAYA BAHADUR	Up Gradiation	private	Low Density	4	Best	Average	Secure
10	SHAKEPURA	In-situ Development	private	Low Density	3	Average	Worst	Secure
11	TAKEDARWALI GALLI	In-situ Development	private	Low Density	2	Average	Worst	Secure
12	ALLAUDINPUR	Up Gradiation	private	Low Density	5	Best	Best	Secure
13	BALAPIR	Up Gradiation	private	Low Density	4	Best	Average	Secure
14	ARRARAWARI	In-situ Development	private	Low Density	4	Best	Average	Secure
15	KACHERITOLA+BAGIYAFAGEL IMAM	Up Gradiation	Local body	Low Density	3	Best	Average	Secure
16	HAZIGUNJ KURDH	In-situ Development	private	Low Density	2	Best	Worst	Secure
17	YUSAFPUR BHAGAVAN	Up Gradiation	private	Low Density	4	Best	Best	Secure

Proposed budget for Slum free Kannauj

ANNEXURE -2E - Line Estimates in Lakhs

Sl.No.	Slum name	Ownership of land	Mode of Development	Housing Cost (Lakhs)	Physical Infrastructure					Social Infrastructure				Others	GRAND TOTAL (Lakhs)
					Water supply	Sanitation	Solid waste management	Roads	Street lights	Educational facilities	Health facilities	Community halls	Recreational spaces		
1	AKBARPUR SARAYA GHAG	state government	Up Gradiation	**162.78**	3.95	31.22	0.28	24.27	4.46	0.00	0.00	0.00	3.0	13.80	243.76
2	LODHPUR(HARIJANA BASTHI)	private	In-situ Development	**267.58**	2.39	9.95	0.17	0.00	0.00	0.00	0.00	0.00	2.2	16.94	299.19
3	MOSAMPUR ALAHAT	state government	In-situ Development	**938.64**	1.21	7.63	0.59	0.00	0.00	0.00	0.00	0.00	0.9	56.94	1005.87
4	KAZITOLA	private	Up Gradiation	**354.54**	4.96	45.59	0.37	33.30	6.24	0.00	0.00	0.00	3.0	26.88	474.89
5	AMBEDKAR NAGAR	Local body	Up Gradiation	**463.80**	0.41	32.64	0.65	0.00	2.55	0.00	0.00	0.00	3.0	30.18	533.24
6	KAZIPURA	private	In-situ Development	**602.05**	7.04	55.98	0.44	60.95	7.03	0.00	0.00	0.00	2.9	44.18	780.54
7	MUBARAK PUTTILA	private	In-situ Development	**374.61**	2.22	26.95	0.26	11.10	3.15	0.00	0.00	0.00	2.9	25.27	446.44
8	DIDARGUNG	Local body	Up Gradiation	**147.17**	2.60	22.84	0.19	20.38	1.78	0.00	0.00	0.00	3.0	11.88	209.85
9	SARAYA BAHADUR	private	Up Gradiation	**163.89**	1.82	23.62	0.29	19.51	2.67	0.00	0.00	0.00	3.0	12.89	227.66
10	SHAKEPURA	private	In-situ Development	**505.72**	0.65	22.38	0.37	0.00	2.67	0.00	0.00	0.00	3.0	32.09	566.89
11	TAKEDARWALI GALLI	private	In-situ Development	**142.71**	0.18	9.95	0.09	7.60	0.73	0.00	0.00	0.00	1.1	9.74	172.12
12	ALLAUDINPUR	private	Up Gradiation	**545.76**	5.29	53.03	0.71	18.65	5.19	0.00	0.00	0.00	3.3	37.92	669.87
13	BALAPIR	private	Up Gradiation	**117.06**	0.28	19.25	0.19	3.30	2.81	0.00	0.00	0.00	2.6	8.73	154.25
14	ARRARAWARI	private	In-situ Development	**378.59**	4.43	39.22	0.29	41.42	3.08	0.00	0.00	0.00	3.2	28.21	498.40
15	KACHERITOLA+BAGIYA FAGEL IMAM	Local body	Up Gradiation	**359.00**	8.25	63.79	0.37	0.00	5.22	0.00	0.00	0.00	3.0	26.38	466.02
16	HAZIGUNJ KURDH	private	In-situ Development	**245.28**	6.07	38.35	0.18	39.15	3.27	0.00	0.00	0.00	2.9	20.11	355.28
17	YUSAFPUR BHAGAVAN	private	Up Gradiation	**461.24**	12.01	73.80	0.68	68.94	11.63	0.00	0.00	0.00	3.2	37.89	669.34
	Total			**6230.40**	**63.76**	**576.21**	**6.12**	**348.57**	**62.49**	**0.00**	**0.00**	**0.00**	**46.0**	**440.02**	**7773.60**